

# Time Study Analysis to Find Normal Time Workforce Scheduling ILO Standard Time: Case Study of Parking Pay Station Bandung Electronic Center

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## **Abstract**

**Purpose:** The purpose of this study was to determine the normal workforce working time of pay parking station in BEC. The working standard time is one of the main factors that determine the productivity of the logistics parking company management. Shift working time measurement is also needed for parking management to gets the best results in the decision-making process for turn in and turn out vehicles. Good decision making based on the results of time measurement can increase productivity in a parking activity management.

**Design/methodology/approach:** stopwatch time study by measuring working time such as activity time measurement, uniformity test, adequacy test, determination of performance rating, allowance, and standard time. The problem is observed in Parking Pay Station Bandung Electronic Center. The data are collect in BEC Parking Place and analyzed according the ILO standard/requirements.

**Findings:** The findings of this study can be used as data for parking management in making decisions regarding the conditions of pay parking station BEC which that the time service of 19.24 seconds is a threshold of service so that it does not happen in the parking lot of the congestion.

**Research limitations/implications:** the scope of queues at the exit of the vehicles way, it can be calculated precision timekeeping in the ILO workforce based on the standard and method of the queue of the highway. Limitations of this research can be developed specifically with the method of fuzzy logic and consider the quality of service.

**Practical implications:** Specifically, the analysis in our research can be developed by taking the information age receive free on-site parking and the time necessary to arrive at a particular parking space to your account and estimate future parking situation at the time arrival.

**Originality/value:** According to previous research, some studies are widely used to assess in minimizing service queue, but not yet to the level of the ILO standard

**Keywords:** Stopwatch Time Study, Productivity, Work Measurement, Standard Time, Normal Time

## **I. Introduction**

Analyzing a work system, there will be a number of alternative work methods. The process of selecting alternative work methods can be based on a number of criteria, namely: time, costs, physiological burden and etc (Cao et al., 2017; Tsang et al., 2010). Time is one of the criteria

that has a number of advantages over other criteria, the measurement of work time and standardization of work time tend to be often used in choosing alternative work above (Caliskan et al., 2007). After the process of selecting alternative design or improvement of work systems is complete, then the next is to do work standardization (Rashid et al., 2012). The standardization of work here includes standardizing the time needed by a worker to complete the work. This is often referred to as the standard working time (Cao et al., 2017; Tsang et al., 2010).

Time Study has been widely used by the analysis in the field of logistics in order to determine the exact time and is required in order for the workers and the system server get the point of normal quality chill by the management to minimize the costs, time and transportation between a point of working on normal speed to perform assigned tasks (Caliskan et al., 2007)

Referring to the definition of motion and time study method is often depicted by way of motion i.e. study design patterns, time studies involving measurements. Time Study is widely used to measure the work and performance in a specified period of time (Caliskan et al., 2007; Gong et al., 2013; Shin & Jun, 2014). The results of the previous research explained that the study of time explains the time that someone is a good fit for the job and fully trained so that it can meet the desired capacity to level (Cao et al., 2017; Tsang et al., 2010). Methods of analysis of certain chart control will need to be made in doing work if someone works on normal speed or threshold standards to know it works. This time is usually referred to the operation standard time or work time often used. Study time is achieved by conducting analysis work by looking at a work function and time cycle itself, the standardization of methods and make study time each can do when the criteria and demand quality standard that has been specified by measurement methods, such as stopwatch time study (Cao et al., 2017; Tsang et al., 2010). BEC current management parking often have a full queue, in the face of fluctuations in the queue when the driver payment of tickets.

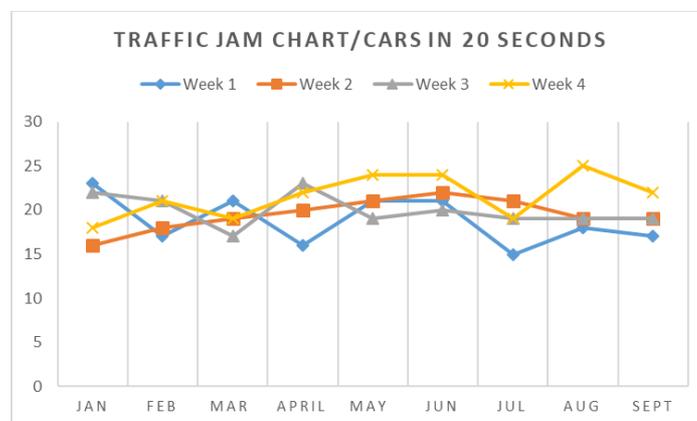


Figure 1: Traffic Jam/Cars in 20 Seconds

The management has been hampered in the utilisation of payment technology and the shift arrangements for its officers. Currently, the company parking lot they manage themselves only able to overcome short-term solutions like that is because constrained limitation spend cost of that maintain parking management. The issue of the management not only from the queue, but the management has limited information in analysing cashier workers in the service tickets. Reports September 2018 as shown in Figure 1, which often occurs on average queuing and congestion per 20 minutes. This happened at the time weekends. In the data explained that happens with average queue between 15-25 vehicles at the cashier's gate (server). The parking lot has a very inadequate way, hence, the car traffic interrupted. This problem often occurs especially when the holidays and weekend. This research aims to calculate how the normal

time for a worker in accordance with the ILO standards, but not create queue getting longer in the parking lot. This research was conducted to contribute information how BEC Parking Management solving the parking time in queue. The existence of this research answer that the management parking lot will know how much normal standard time in order to minimize congestion for a server gate in the service of the vehicles. Previous research many ways to set workforce in queues of vehicles, but only a little bit of research that connects with a standard work fatigue someone manage queue in accordance with ILO standards.

## **II. Literature Review**

### ***Time Study***

Time Study is one of the techniques for analyzing the measurements in a job. With these techniques, considerations that must be made in the establishment of standard technique of doing time is allowed to perform tasks appropriate capacity and capability will do. Basically, the measurement is one of the methods is done and is reserved usually for work which is repetitive and continue at any given time, having regard to the type of work allowed to measure and analyze fatigue and delays can be avoided (Cao et al., 2017; Tsang et al., 2010).

To analyze the study time by using some of the techniques for tailored standard means that a study time stopwatch can be done through computerized data collection techniques (Rashid et al., 2012). By finding the standard data based on dynamic motion or data that exists in the form of a sampling of work, so that researchers can do an estimate based on historical data(Cao et al., 2017; Tsang et al., 2010). According to previous research, some studies are widely used to assess in minimizing service queue, but not yet to the level of the ILO standard (Cao et al., 2017).

Each technique has applications under certain conditions in accordance with the requests made. In analyzing the study time should know at the time of normal time when best to use specific techniques so that the techniques applied in deciding correctly (Cao et al., 2017).

According to ILO Standard describes the time study by measurement of work and performance for the recording time (Cao et al., 2017). By entering, some specific elements of the work done under certain conditions, and for analyzing the data to get time required must be defined in advance of the threshold performance level and the level of the threshold of fatigue of someone in doing his job (Rashid et al., 2012).

### ***Stopwatch Time Study***

Stopwatch Time Study intended to get the measurement in order for higher productivity, thus optimizing the appropriate constraints can be minimized. The usual technique is often done by either using a pattern study group where that method is used for ease of work; this condition can be measure by means of developing more ergonomic methods that will be done (Caicedo et al., 2012).

According to previous technique to consider by measuring, the measurement-working group to find the time needed to carry out the operation queue or employment, which is looping and iteration on the level, defined for each level of activity. Frederick W. Taylor developed a method of measuring this in 1881 by way of measure of time machine in a store with a stopwatch and a clipboard as a basic tool for recording time of data history (Caicedo et al., 2012).. Today the development of digital measurement tools and software developed to be done and the value of the error is small with a high precision level (Cao et al., 2017; Tsang et al., 2010)..

Some research already use the technique of the stopwatch time study for analyzing the work to rate quality must be achieved in the work; then identifies the most important operation for a certain period in a job that when it is done in the process queue get the proper methods and procedures in deciding queuing techniques.

The current method of stopwatch time study was developed to organize resources and explain the purpose of the study time for workers and supervisors. It may explain the details to workers about improved work procedures and at the time when the break the operation on the queue into the elements to separate the constant element of the variable elements of the other in his work (Cao et al., 2017; Tsang et al., 2010).

The technique was developed to stopwatch time study can observe and record the time taken by the operator by means of determining the number of cycles for time and then the time average or representative of time can be found depending on the level of the performance of the workers during the observation (Cao et al., 2017; Tsang et al., 2010).

Calculate the normal time of the time observed by using the performance rating factors can be added the process is allowed to rest in accordance with ILO rules, specifically for the normal time to obtain standard time or the time allowed and in rate determination of standard time by adding the normal time (Cao et al., 2017; Tsang et al., 2010).

### III. Research Method

This research methodology is used stopwatch time study by measuring working time such as activity time measurement, uniformity test, adequacy test, determination of performance rating, allowance, and standard (Caicedo et al., 2012; Chukwu & Mahajan, 2014). The problem is observed in Parking Pay Station Bandung Electronic Center. The data are collect in BEC Parking Place and analyzed according the ILO standard/requirements. Primary and secondary data is used in this research with actual data in pick time on weekend with parking office hour from 10.00 am until 10.00 pm in average. Primary data were obtained through observation in 4 weeks in month. While secondary data were collected from journal, BEC Parking monthly report and previous research related to research this subject.

### IV. Findings and Discussion

#### Observed Time

In this research, the technique was developed to Study the Stopwatch Time can observe and record the time taken by the operator by means of determining the number of cycles for time and then the time average or representative of time can be found depending on the level of the performance of the workers during the observation.

Adequate Test Packaging Data (1) to determine the sample size needed for a time study. A 95 percent confidence level and  $\pm 5$  percent precision are used in this study. From the test the number of samples ( $N$ ) = 100 is greater than the number of samples that should be taken ( $N'$ ) = 52. It means that the sample size is sufficient because  $N' < N$  ( $52 < 100$ ).

$$N' = \left( \frac{40\sqrt{N(\sum x^2) - (\sum x)^2}}{\sum x} \right)^2 \quad \text{Adequate Test Packaging Data (1)}$$

Where,  $x$  is observed time.

From Fig 2 Control Chart, the data value of each element lies between the upper limit data control value and the lower control limit. The data value is not the outlier. It indicates that normal condition have been present during stopwatch time study.

#### Cycle Time

$$\text{Cycle Time} = \frac{\sum x}{N} = \frac{1919.6}{100} = 19,24 \text{ second}$$

Table 1: Observed

Subgroup	Observed Time (Second)										Average (Second)
1	13,6	17,7	15	16,7	24,2	16,7	13,8	23,5	13,9	18,6	15,88
2	19,8	13,8	24,8	24,4	24,6	15,4	21,4	16,4	16,4	23,7	18,43
3	23,5	16,7	16,9	22	23	19	16,8	19,3	21,6	13,7	17,77
4	22,8	15	18,2	23,6	22,3	23,1	17,9	20,6	22,9	13,8	18,56
5	13,8	15,9	22,6	20,7	22,6	17,8	21,2	21,6	15	14,7	17,35
6	18,2	13,7	16,1	18,9	16,1	20,1	22,6	17,4	24,5	21,9	17,77
7	17,8	15	19,7	21,7	19	22,5	14,7	19,2	16,9	22,7	17,84
8	14	22,8	22,6	16,5	18,4	19,5	21,4	17,5	24	18,9	18,51
9	17,1	23	19,6	17	22,5	24,3	15,6	14,2	17,2	21,3	18,25
10	16,2	24,5	24	17,7	24,1	21,7	16,1	24,1	22,9	13,7	19,55
Total										179,92	

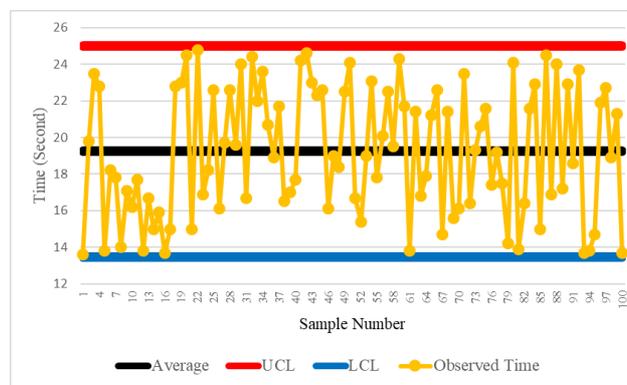


Figure 2: Control Chart

### Normal Time

In this study, the time observed by searching the first actual time, it takes to do the job for the operator who worked at the gate. Therefore, normal time needs to be calculated using the ranking factors performance, it is useful to determine the cycle time and the threshold of workers in accordance with ILO standards (Cao et al., 2017; Tsang et al., 2010). Performance rating will be done using the system Westinghouse with consider four factor. Some of the latter factor is a factor of effort and skill behavior, then the conditions and consistency (Cao et al., 2017; Tsang et al., 2010). In the method of Westinghouse, should be able to explain the six levels of each factor as shown in Figure 3. Normal time is the time workers (server gate) take when working at normal speed (Cao et al., 2017; Tsang et al., 2010). It is calculated as below:

Excellent Skill, B2	+0,08
Excellent Effort, B2	+0,08
Average Conditions, D	0,00
Excellent Consistency, B	<u>+0,03</u>
Total	0,19

$$\begin{aligned}
 \text{Normal Time} &= (\text{average element time}) \times (\text{Performance Rating} / 100) \\
 &= (19,24 \text{ second}) \times (1,19 / 100) \\
 &= 22,90 \text{ second}
 \end{aligned}$$

The normal time for this operation is 22,90 second

Skill			Effort		
+0.15	A1	Superskill	+0.13	A1	Excessive
+0.13	A2		+0.12	A2	
+0.11	B1	Excellent	+0.10	B1	Excellent
+0.08	B2		+0.08	B2	
+0.06	C1	Good	+0.05	C1	Good
+0.03	C2		+0.02	C2	
0.00	D	Average	0.00	D	Average
-0.05	E1	Fair	-0.04	E1	Fair
-0.10	E2		-0.08	E2	
-0.16	F1	Poor	-0.12	F1	Poor
-0.22	F2		-0.17	F2	
Conditions			Consistency		
+0.06	A	Ideal	+0.04	A	Perfect
+0.04	B	Excellent	+0.03	B	Excellent
+0.02	C	Good	+0.01	C	Good
0.00	D	Average	0.00	D	Average
-0.03	E	Fair	-0.02	E	Fair
-0.07	F	Poor	-0.04	F	Poor

Figure 3: Performance Rating Table (Westinghouse)

### Standard Time

Based on predetermined target standard time turn in and turn out for each vehicle that will be in service by number of unidentified vehicles entering and going out on that day. Direct measurement using a study conducted to see the stopwatch time that would be recommended in the parking service implementation (Cao et al., 2017; Tsang et al., 2010).. To determine the capacity of the operator, then some of the constraints of the ILO standards should be included as the basis of calculation. ILO standards are classified into two types of character data either time constant and variable motion (Cao et al., 2017; Tsang et al., 2010).. To calculate the variable workers. Table 2 presents the ILO recommended. Based on previous observations, to evaluate an operator according to the ILO, the thing that needs to be taken into account and considered in analyze are:

Basic Fatigue Allowance	4%
Muscular Energy	0%
Bad Light	0%
Atmospheric Conditions	10%
Close Attention	2%
Noise Level	2%
Mental Strain	4%
Monotony	1%
Tediousness	<u>2%</u>
Total	25%

$$\begin{aligned}
 \text{Standard time} &= \text{normal time} \times \left( \frac{100}{100 - \text{allowance in \%}} \right) \\
 &= 22,90 \times \left( \frac{100}{100 - 25} \right) \\
 &= 30,53
 \end{aligned}$$

Table 2: ILO Recommended Allowances

Table: ILO Recommended Allowances		
A. Constant allowances:		
1	Personal allowance	5
2	Basic fatigue allowance	4
B. Variable allowances:		
1	Standing allowance	2
2 Abnormal position allowance:		
a.	Slightly awkward	0
b.	Awkward (bending)	2
c.	Very awkward (lying, stretching)	7
3 Use of force, or muscular energy (lifting, pulling, or pushing):		
Weight lifted, pounds:		
	5	0
	10	1
	15	2
	20	3
	25	4
	30	5
	35	7
	40	9
	45	11
	50	13
	60	17
	70	22
4 Bad light:		
a.	Slightly below recommended	0
b.	Well below	2
c.	Quite inadequate	5
5	Atmospheric conditions (heat and humidity)- variable	0-100
6 Close attention:		
a.	Fairly fine work	0
b.	Fine or exacting	2
c.	Very fine or very exacting	5
7 Noise level:		
a.	Continuous	0
b.	Intermittent - loud	2
c.	Intermittent - very loud	5
d.	High-pitched - loud	5
8 Mental strain:		
a.	Fairly complex process	1
b.	Complex or wide span of attention	4
c.	Very complex	8
9 Monotony:		
a.	Low	0
b.	Medium	1
c.	High	4
10 Tediousness:		
a.	Rather tedious	0
b.	Tedious	2
c.	Very tedious	5

Sources: (Cao et al., 2017; Tsang et al., 2010)

## V. Conclusion

Operator performance measurement can be done by analyzing the data that has been processed in order to increase the work productivity of the operator and become a reference in choosing the operator. The cycle time is 19.24 seconds, normal time is 22.90 second, and the standard time is 30.53 second.

The method of stop watch time study used in this study is Easy to use without extensive training or heavy equipment costs but less accurate. The research carried out is a preliminary study to help companies in making decisions in order to make improvements related to the conditions of payment for car parking in BEC. The next study used Predetermined Motion and Time Study with the aim of describing all the movements needed in the work so as to produce a consistent standard time.

This research can contribute to the management of parking places on BEC, it is necessary to estimate the parking in the territory of destination upon arrival. In this study, we present an analysis to predict the time of service of parking, based on the information exchanged between the vehicles. According the specified that the time service of 19.24 seconds is a threshold of service so that it does not happen in the parking lot of the congestion. The management must train the waiter's gate up to the capability. If a single server is not possible then it should be developed lookout point to the new server gate that can serve so that the threshold can be implemented.

Specifically, the analysis in our research can be developed by taking the information age receive free on-site parking and the time necessary to arrive at a particular parking space to your account and estimate future parking situation at the time arrival.

It is based on the theory of queues at the exit of the vehicles way, so it can be calculated precision timekeeping in the ILO workforce based on the standard and method of the queue of the highway. Limitations of this research can be developed specifically with the method of fuzzy logic and consider the quality of service.

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# The Influence of Social Pressure, Responsibility and Procedural Fairness towards the Creation of Budgetary Slack: An Experimental Research

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## Abstract

**Purpose:** Susceptibility management accountants in the creation of budgetary slack concern in management accounting research as a form of policy making company. Budget slack has been investigated as a matter of organization and behavior and is defined as the value through the manager of deliberately arranging additional obligation to the resources of a specific budget or consciously disregarded productive ability. This study examine whether the social (obedience) pressure, perceived responsibility in the creation of procedural fairness budgetary slack.

**Design/methodology/approach:** This study uses experimental design to measure the perceived responsibility of the individual characteristics and measurement of procedural fairness. Experimental design using post-test only control group. Eighty participants in the experiment. Experimental subjects were students S1 Accounting Studies Program Faculty of Economics, University Widyatama and randomly assigned subject. One sample hypothesis testing using statistical, one way ANOVA and linear regression.

**Findings:** Results from this study is the first, the majority of participants with pressure obedience violate company policy to create budgetary slack. Second, participants who create budgetary slack more responsible for their adjustment compared with participants who did not create budgetary slack. Third, participants who create budgetary slack sense of procedural justice when getting pressure obedience directly from the employer in the budgeting process.

**Research limitations/implications:** (1) The study only focused the investigation on the condition of obedience pressure as indicators of budget creation. (2) The use of item-item questionnaire to measure perceived procedural fairness and the pressure of responsibility which is the weakness of this study, which are difficult to measure one's personal use items with questions. (3) To avoid respondent bias or the low response rate, the case study method can be used as a replacement questionnaire.

**Practical implications:** The results of the study have a practical contribution to the attention of management leaders, namely the subordinates do the creation of budgetary slack under pressure by the leadership which has a low impact on subordinate responsibility on the budget and reduce their commitment.

**Keywords:** Obedience Pressure, Pressure and Perceived Responsibility of Procedural Fairness

## Introduction

Budgeting is one of the few types of planning and control activities in the organization. Some of the activities included in the control of management as of the planning in the form of

monetary units to finance the company's activities, coordination, communication of information, evaluation and decision-making over whether an activity to be carried out or dealt with and how a policy or budgeting can affect people in organization to achieve it (Govindarajan, 2007). All of it can be done with an enterprise planning tool through the budgeting process. So that the budget can serve as a tool of control, then the budget process should be able to instill a sense of sense of commitment to the compilers of the budget. In which a sense inside of a person's liability for the budget that has been prepared or determined. If not successful, then the budget just a mere plan without any sense of responsibility when a deviation occurs with the realization of the budget.

The purpose of this study was to test the level of obedience of superior pressure and social pressure someone to create slack in the budget violates company policies that affect management accountants budget recommendations. Viewed empirically how the various pressures of authority, social pressure "reputation and ethics" which are expected to evaluate the shift of responsibility when the budget process and evaluate prior to justify the decision.

Individual's perception of fairness or justice in both the target and the process becomes the motivation for individuals to achieve a set budget. For that perceptions of fairness of each individual personally would pose an incentive to reach a target or a set budget (Yusnaini, 2008). When the budget is set fair, people trying to find information on various sources, the best way in the ability of individuals about how the process of drafting the budget. Conversely, if the budget process is not fair that people are not optimally motivated in the preparation and achievement of the budget.

The development of research on budgetary slack since 1973 more oriented organizational factors. As recent research shows a tendency to place more emphasis on individual aspects such as that conducted by Douglas & Wier (2000); Blanchette et al., (2002) found that the subordinate considers budgetary slack is of positive influence, so that subordinates tend to increase the budget. Fahlevi, et al (2007) state budget is only a matter of "compliance" so that deviations from the budget reflect their inefficiencies, but loosely in the budget can control the budget of each unit to slack because funds are used to support the innovation of each business unit.

Needs a control device in the budget or in the company's business units is necessary to consider the negative, namely inefficiency, as well as positive in the behavior to more innovation for enterprise management and subordinates. Budgets have a direct impact on human behavior. Every individual feels the pressure of a tight budget and discomfort on the budget performance reports that are often seen as a barrier to their career advancement and any top management to assess the performance and management compensation is based on the preparation and accomplishment budget. Their budgetary participation, budget emphasis, organizational commitment and the complexity of the tasks may affect budgetary slack

So far, only the management accounting research is to focus on how the influence of variables that cause budgetary slack. Participation budget, information asymmetry and budgeting is three predictors variables that may affect subordinates tend to create slack (Dunk, 1993; Grediani 2010). The cause of the creation of slack is indicated by a person's behavior and external pressure that causes a person cannot avoid slack. Obedience is the type of social pressure affects pressure occurs when the individual with command authority by other individuals (Davis, DeZoort and Kopp, 2006). They found evidence that the average participant under pressure obedience will increase their budget with the initial recommendation violate company policy and assume they are not accountable to a set budget when compared with participants who refused slack. In addition, most participants indicated that creating budget slack unjust, unreasonable or contrary to obligations (duties) them. In the study Davis et al (2006) developed a model DeZoort and Lord (1997) four individual characteristics as moderating variable that professional commitment (professional commitment), Management Impression, perceived

pressure forces (perceived strong pressure), difficulties perceived decision (decision perceived difficulty). The result showed that pressure obedience affect the initial budget recommendations, and the transition of responsibilities as an antecedent decision to obey the orders of superiors and ethical behavior.

Managers who feel pressure obedience tend to assume they are not responsible for the actions happened budgetary slack, they assume the responsibility of a supervisor who has the authority. More positive attitudes related to the budgetary process led to a lack of slack in both the budget and create budgetary slack. (Huang and Chen, 2009) found the behavior of the manager to create slack can be influenced by changes in their attitude toward the budget slack and attitude when the budgeting process as the desire to maintain the accuracy of the budgeting process and manage the proper function in the budgeting system. Budgeting in the participation of potential factors that create budgetary slack with their self-interest, the reputation and ethics are often dysfunctional behavior in the practice of budgeting (Stevens, 2002). Reputation and ethics is an individual social pressure can be reduced when managers have less information to oversee the slack. In terms of ethics, someone will sacrifice fortune to make true statements neighbor productivity capabilities.

Understanding of professional and ethical conflicts that arise when the obedience pressure that encourage individuals to behave in a dysfunctional way. When literature shows evidence that the rate is not appropriate from the boss (Lord and DeZoort 2001; Davis, DeZoort and Kopp, 2006), and the social pressure one's "reputation and ethical dimension" few know how to justify a professional and responsibilities of their assessment based on the pressures and decisions. Davis, DeZoort & Kopp (2006) has several implications from the research perspective obedience pressures that impact on the perception of professional responsibility that ethical ambivalence by individuals. So from the research perspective obedience pressure affects the professional responsibility of management accountants to change the initial budget recommendation is to create budgetary slack, but pose an ethical conflict private person to commit the creation of the budget in a way manipulated budget recommendations without any sense of personal responsibility in a professional manner. Grediani and Sugiri (2010) also found that stress obedience leads to a shift in the responsibility of a management accountant to act to modify the recommendation according to the perceived pressure of obedience, management accountants feel less responsible for the budget they requested because they define or decide on the basis of the shift of responsibility professional caused personal ethical conflict that comes from their obedience pressure from superiors. Research Davis, DeZoort & Kopp (2006) and Grediani & Sugiri (2010) have in common from the results, there are differences in the research object from different countries, but the similarities perception of pressure aimed at the observance of management accountants. While the addition of variables perceived procedural justice describes the relationship between the creation of budgetary slack or participation budget. Libby, (2003) stated procedural fairness in the budget is the participation of the arguments of the concern regarding the procedures used in decision making. Subordinate strive in achieving the budget as a matter of injustice and primary perception in behavior problems. Besides dealing with the perception of procedural fairness subordinates regarding all processes applied by their superiors to evaluate their performance, as a means to communicate feedback to determine the performance and reward for them as a promotion or a raise (Waskito and Sholihin, 2004). Assumption Fair (unfairly) the processes and procedures that applied showed a high (low) procedural fairness by subordinates. In other words, they argue that procedural justice relates to whether employees believe or consider the procedure and the results have been fair, not whether the procedure and the results have been fair in the sense that more objective.

**Literature Review**

Accounting research literature shows evidence that public accountants can be detrimental influence adherence and other social pressures that are not right (conformity pressure, compliance pressure) eg previous studies to show that the external auditor may report their compliance project when pressure (Lightner et al. 1982). DeZoort and Lord (2001) found that the auditor may make ethical decisions when addressing the pressure of supervisors. They are evidence of a positive relationship between the status hierarchy of bosses (partner vs. manager) and influence. Towards research, Lord and DeZoort (2001) found that senior audit adherence affect significantly improve client truth than the auditor in the control group. Milgram's (1974) in Davis et al (2006) theory of obedience is used as a basis for developing a normative influence on the approach of pressure obedience. Obedience is pressure from employers who have the power and authority or other parties who have authority. Various studies have been conducted in relation to greatly contributed in the accounting literature. Davis et al (2006) found that individuals under pressure will behave according to what was given to them and tend to ignore the responsibilities and violating company policy. Various subordinate consequences of deviation will affect the obedience pressure. If it is associated with the creation of budgetary slack, people who have ethics and ethical conflict feel cognitive dissonance.

**Pressure Obedience and budgetary Creation Budgets Slack.**

Budgets are often used to motivate employees and facilitate planning. Unfortunately in budgeting, it is optimistic when subordinates have more information about the factors that affect their performance compared to superiors. But this tradeoff between the asymmetry of information and participation budget. Slack budgetary problems can be assessed from the perspective of agency theory that shows the relationship nature bosses delegating tasks to agents. The budget gap can be attributed to; (1) The asymmetry of information between supervisors and subordinates concerned with subordinates to illustrate the ability of their productivity, (2) the uncertainty between effort and output, (3) the purpose subordinate opposing the main purpose of the organization, (4) opportunistic attitude or self-interest of subordinates. Slack is a common phenomenon in the organization. Many different factors within the organization that is used to describe the creation of slack, ie; organizational structure, alignment of goals, system control and managerial behavior. Slack is likely to occur because of a conflict between the individual and organizational objectives, the deliberate managers to create slack and attitude of the management of budget and employee demonstrates a budget is used by management to manipulate their budget. The occurrence of slack not only on the personality and also the management of the system is used in the organization in achieving the aim of increasing occurrence of slack such as decentralization or centralization. The control division of the company is visible and more influential in internal management and allocation of resources. Difference between the actual amount of resources to accomplish tasks efficiency with the amount raised by the organization that the manager is concerned to carry out the same task. Budgetary slack in large amounts can harm the company, existing resources may not be used productively because of the lack of compatibility in the determination of the budget with large amounts of proposed. When problems slack budgetary attention in the literature of management accounting to assess slack budget, little is known about how managers feel slack budgets, how they respond to pressure to create slack in the violation of the policies and whether the pressure of creating ethical ambivalence Douglas and Weir (2000) it points the relationship between ethics and the slack in the survey of management accounting. However, surveys indicate they result in no direct relationship or show explicit evidence of the influence of pressure creates slack.

Literature slack portrait organizations that managers have a motive for doing slack. In considering the budget slack, budgetary slack as the embodiment of the budget, thus assuming

the manager to use the budget process to approve the budget slack (Belkaoui,1984). The manager will create slack in the budget process in a way understating and overstating costs. In general, the definition of budgetary slack is information that understate income and raise costs in the budget process. Apriwandi (2008) for details the creation of slack budget for the budget process three divisions in the company's multidivisional, they found evidence that slack budget through discouraging earnings reports, and concludes increase in personal interests, provision of marketing and sales budget with limited internal expenditure funds, using manufacturing costs based on standard costs do not reflect the operational improvement process and establishes a special project.

The budget process is a fundamental conflict because it is very subjective and violated various types of mutual influence. One major conflict of the management accountant in the budgeting of the management company wants to achieve as a constraint budget the future and local management wants to reach a budget. In this study, researchers examined whether the inaccuracy pressure obedience of authority boss motivate management accountants to modify their budget recommendations to enter the slack. We predict that although the new policy creates slack, accounting management under pressure from superior authority will increase the initial budget recommendations in eliminating a company policy.

***H1; pressure from supervisor will create slack by providing budget recommendations are higher than the initial recommendation.***

#### **Obedience pressure and pressure Responsibility In Creation budgetary Slack.**

Prior research Obedience pressure in accounting (DeZoort and Lord, 1994) did not evaluate the specific reason of inappropriateness judgment and decision under pressure obedience. Professional judgment and determination of responsibility that showed a crack (gap) in the literature and understanding how and why someone succumbing to commit the steps they know inaccuracies and an individual against the pressure (Davis, DeZoort and Kopp, 2006)

Milgram's (1974) obedience theory states that individuals subjectively to pressure obedience will make a decision consisting of their attitudes, beliefs and values in part because they distanced themselves from the responsibilities and decisions as individuals with their action direct authority. In this study, the creation of budgetary slack is one consideration, management accountants in violation of an explicit policy budget when under pressure obedience which is expected to have the pressure of responsibility which involves a shift of responsibility from each of their own actions and pressures superiors instructed them to behave unethically. Thus, we predict that management accountants abide by superiors to ignore the policy and encourage their initial budget recommendations were deemed less responsible for their decisions rather than professional reject their recommendations.

***H2; pressure from supervisor will create slack by increasing the budget recommendation and lowered sense of responsibility in every decision***

#### **Obedience pressure and Procedural Justice Perceptions In Creation budgetary Slack.**

Attributes common personality is very influential in organizational behavior is the level of confidence that they have a destiny or fate (Kondalkar, 2007). This concept that determines whether one's control of the event or events to control someone and they just rely on circumstances or situations. Individual's perception of fairness or justice in both the target and the process becomes the motivation for individuals to achieve a set budget. For that perceptions of fairness of each individual personally would pose an incentive to reach a target or a set budget (Yusnaini, 2008). When the budget is set fair, people trying to find information on various sources, the best way in the ability of individuals about how the process of drafting the

budget. Instead the opposite happened if the budget process is not fair that people are not optimally motivated in the preparation and achievement of the budget. Procedural justice which describes the relationship between the creation of budgetary slack or participation budget. Libby, (2003) stated procedural fairness in budget participation. Procedural fairness is a concern for the arguments concerning the procedures used in decision making. Subordinate strive in achieving the budget as a matter of injustice and primary perception in behavior problems.

The existence of individuals perceived to reduce slack in the budget, every person has the perspective of each of the events and decisions that consider all the actions and accept the consequences of those actions. In the process of creating an organizational justice can be reflected by involving all parties directly involved organizations to develop policies, one of which corporate budgeting. This may reflect the actions or perceived fairness perceived by the organization as a procedural.

Procedural fairness can be considered as antecedents of participation. It is based on the premise that how far the organization stressed the importance of maintaining procedural justice, then it can be considered an employer to allow her subordinates to increase participation budgeting, Wasito and Sholihin (2004). So the involvement of subordinates participate in determining the department's budget or their respective divisions. By acting head of the company creates a perception of procedural fairness in the achievement of the budget and one of the top management controls.

***H3; the interaction of pressure from superiors and management accountants Justice perceived influence on the budget higher than the initial recommendations***

## **Method**

### **Participants**

One hundred students majoring in Accounting Faculty of Economics, Widyatama University participate in this experiment. All students who participated in an accounting student in the third year or are already taking courses at least 6 semesters, in which students take courses already minimal management accounting and budgeting. Data obtained in a meeting in the classroom with the permission of the lecturer while doing experiments. The number of participants in a group of treatments as many as 80 people and 20 people who participated in the control group.

### **Experimental Procedure**

Experimental research design using the experimental task used Davis, DeZoort and Kopp (2006) and has been modified every procedure to be carried out on the experimental process. Acquiring subjects who were respondents in this experiment done by asking the student volunteerism. Experiments carried out lecture schedules by using one room in Economics Faculty, Widyatama University and STIE BPD Central Java, takes 30 minutes. In the implementation of experiments helped researchers several assistants to support the experiment. The assistants assigned to assist researchers to distribute up to collect and distribute consumer research instruments.

This experiment uses a real classic experimental design-that is the post-test-only control group by a factor of obedience pressure were divided into two groups: with obedience pressure and no pressure group obedience as the control group (Jogiyanto, 2004). The task of the experiment is solving problems in an experiment designed scenarios. Experiments performed with several stages of experiments to study the behavior of management accountants.

**Step 1:** Before starting the experiment, the organizers explained in advance to the participants of the experiments carried out. Before charging starts moderators deliver and give emphasis to the participants to be read closely illustrations and case studies given to perceive themselves as employees there are cases. Events each group is already reflected in the respective questionnaires distributed. There is no special treatment at the stage of filling out the questionnaire, so that participants were asked not to discuss the mutual decision to be taken by the other participants, and because there is no right or wrong answer in a given case. Filling instrument instruction moderator begins on research and transfer from stage to stage in accordance with the instructions and the time that has been designed. Experiments designed to be implemented over four phases for 25 minutes.

**Step 2:** In the experimental procedure described, a manufacturing company with traditional practice is still to estimate the budget with a 10% annual bonus achievement and continued under the form of a limited budget. Participants were asked to assume the role of a new accounting manager's responsibility to make budget recommendations and forced fiscal policy to randomly assign company centralized or decentralized structure. After determining the estimated budget for 2002, participants were asked to count in controlling overhead expenditures for the division of \$ 4.5 million. After talks in the budgeting process, the CEO introduced a new policy that the budget will be set accurately and precisely, participants were asked immediately to change their initial budget estimates of \$ 4.5 million for the following year's budget of \$ 4.9 million. Supervisor stated that the recommendation is less than the previous budget will greatly increase the likelihood of excessive budget, and employee bonus declared in danger and reflects poorly on the management team divide. Boss also requested to keep the change in setting the budget

**Step 3:** Once the background scenario and pressure treatment, participants were asked to set a budget amount that they would recommend after a treatment in experimentation. Furthermore, they are asked to determine responsibility for the budget they recommend 100% involving their own responsibility, their superiors and others they know. Recently the participants were asked to indicate which specific estimates on the percentage of their peers believe will follow orders to violate company policies increase the budget recommendations of \$ 4.5 million and \$ 4.9 million. By following the case and question experiment, participants answered each stage in a question about the amount of pressure they feel, whether the case before them with an ethical dilemma, to the explanation in an ethical conflict scenarios and whether they had ever come across a situation that exists in the scenario in practice.

The final stage participants completed a questionnaire Professional commitment (PC) (Aranya et. Al. 1981) 15 items of questions with a scale of 1 (strongly disagree) to 7 (strongly agree), 20 items of questions Impression Management of (IM) (Paulhus, 1984). As for the perceived procedural justice used a four-item instrument used by Lau and Lim (2002) and Sholihin (2004) was used to measure the perceptions of subordinates regarding procedural fairness.

The study design experimentation, it is in the experimental stage is collected in one classroom for 30 minutes of work or follow the experiment and is only done in one day experimental process, it is a consideration that must be considered because if the experiment is not done in one day, will lead to biased results so one day run the process used to control the respondents who are likely to tell the chronological process of experimentation. The collected data completeness and the contents checked, if there is incomplete data then automatically the data cannot be used in research. The processing of data using SPSS 17 and using ANOVA to hypothesis testing. The use of analysis of variance (ANOVA) to show the difference between the groups participating in this experiment. Tests will be conducted at 0,05 alpha.

### Findings

Hypothesis 1, test management accountant under pressure obedience of the immediate supervisor will create budgetary slack by providing budget recommendations are higher than their initial estimates.

Table 1: One-Sample Statistics Group Treatment

<b>Panel A : Obedience Pressure</b>				
	<i>Mean</i>	<i>Deviasi Standar</i>	<i>t</i>	<i>Sig.</i>
Group <i>Obedience pressure</i>	<b>Rp4.720.000.000</b>	<b>Rp176.400.000</b>	<b>239,324</b>	<b>.000</b>
<b>Panel B : Group Respons</b>				
<b>Clasifikasi Respon</b>			<b>N</b>	<b>%</b>
<i>Obedience</i> Penuh (Rp4,9 M)			<b>26</b>	<b>32,5</b>
<i>Zone of Compromise</i> (>Rp4.5 M dan < Rp4.9 M)			<b>33</b>	<b>41,3</b>
Non <i>obedience pressure</i>			<b>21</b>	<b>26,3</b>

Based on the above table shows the results in Panel A, for the effect of obedience pressure proves that the average budget recommendations of the 80 participants who were getting pressure obedience is Rp4.720.000.000. budget recommendations is significantly higher than their initial estimates are Rp4.500.000.000 ( $p < 0.000$ ). It can be concluded from the evidence to support the hypothesis 1, which states that the management accountant obedience under pressure in direct violation of budget policies and create budgetary slack to recommend to its high budget. The results of this study are consistent with research Davit et al (2006) and Grediani & sugiri (2010). In addition, each individual in direct pressure on the leadership has led directly to a subordinate is more likely to obey the orders of superiors despite the decisions taken in violation of company policy and a conflict of private individuals who suppressed. In addition, the obedience pressure are three (3) groups include: First, the presence of 26 respondents (32.5%) who feel the pressure in full obedience to the recommendations that the total budget of Rp4.900.000.000 maximum recommendations set forth by the leadership in process experimental treatments. Second, of the 80 respondents, 33 (41.3%) were located in the zone of compromise. A zone which showed participants who provide recommendations > Rp4.500.000.000, < Rp4.900.000.000, this proves that not all respondents who feel depressed fully from the boss directly without considering the worst consequences that may befall them are related to bonuses, promotions and promotions for the future. Researchers believe the participants give a recommendation just to please a superior alone. In addition the participants are convinced that their proposed budgets in accordance with the correct estimate. Third, 21 people (26.3%) of the 80 respondents in the group did not feel under pressure treatments obedience resulting preliminary recommendation together with a final recommendation is Rp4.500.000.000.

Table 2: One-Sample Statistics Control Group

<b>Panel A : Obedience Pressure</b>				
	<i>Mean</i>	<i>Deviasi Standar</i>	<i>t</i>	<i>Sig.</i>
<i>Obedience Pressure Grup</i>	<b>Rp4.700.000.000</b>	<b>Rp182.000.000</b>	<b>115,401</b>	<b>0,000</b>
<b>Panel B : Grup Respons</b>				
<b>Clasifications Respons</b>			<b>N</b>	<b>%</b>
<i>Obedience</i> Full (Rp4,9 milyar)			<b>7</b>	<b>35</b>
<i>Zone of Compromise</i> (>Rp4.5 M dan < Rp4.9 M)			<b>5</b>	<b>25</b>
Non- <i>obedience</i>			<b>8</b>	<b>40</b>

The result of one sample t test for the control group in the table above supports the hypothesis 1 with a mean budget recommendations resulting from 20 participants is Rp4.700.000.000 at a significant level of initial budget estimates Rp4.500.000.000 ( $P < 0.000$ ). The test results for the control group is consistent with research Grediani and sugiri (2010) which states that the average budget recommendations are higher than the initial budget estimates. However, these results are not consistent with research Davis et al (2006) which proves that the average on a lower budget and is equal to the initial estimate in the budget process. The management accountant in the experiment were more likely to simply follow the advice of superiors and also how much taking the increment used in budget recommendations.

Of the 20 participants in the control group, there are three groups generated in the process of experimentation. A total of seven (7) people (35%) provide Rp4.900.000.000, and five (5) people (25%) in the zone of compromise between the budget that provides recommendations  $> Rp4.500.000.000$  and  $> Rp4.900.000.000$ , Recently, as many as eight (8) people as the control group that provides recommendations and do not show obedience despite budget recommendations suggested by the employer.

Hypothesis 2 test management accountants who violate company policy and raised its recommendation on the budget, they are less responsible for their decisions than the management accountant who does not change the initial budget recommendation. From the research results can be analyzed below;

Table 3: Percentage of Responsibility (n=80)

<b>Percieve Responsibility ( % ) to Budget Recommendation</b>		<b>Self</b>	<b>CFO</b>	<b>CEO</b>
<b>Disobedient (Rp4.500.000.000)</b>	<i>Mean</i>	76	75	75
	<b>SD</b>	26,95	27,15	27,32
	<b>N</b>	17	1	3
<b>Zona of Compromise (<math>&gt;Rp4.500.000.000</math> dan <math>&lt;Rp4.900.000.000</math>)</b>	<i>Mean</i>	76	10	70
	<b>SD</b>	26,73	26,3	25,84
	<b>N</b>	25	1	7
<b>Full obedient (Rp4.900.000.000)</b>	<i>Mean</i>	73	74	74
	<b>SD</b>	27,71	27,6	27,47
	<b>N</b>	18	1	7

As additional evidence of the results of this study, in the above table shows the support for the hypothesis 2 in terms of the percentage of responsibility of each respondent on the recommendation of their respective. In the zone of compromise average management accountant responsibility is upon the recommendation of their budget is 76% responsible for their decisions to the level of the standard deviation (26.3%) while shifting responsibility for the recommendations given budget management accountants shows average responsibility is on decision management accountant is CEO 10% and SD (26.3%), in addition to the average shift of responsibility aimed at CFOs 70% with SD (25.84%).

Full adherence to the group that recommends an average Rp4.900.000.000 budget management accountants themselves were responsible for the recommendation is 73%, SD (27.71%), while the shift of responsibility for the CEO is 74%, SD (27, 6%) and the shift of responsibility for the CFO is 74%, SD (27.47%). These results prove that participants who felt the pressure of obedience fully recommend a budget, yet less management accountants are responsible for their decision to transfer the responsibility to the CEO and CFO respectively 74%.

As for the group that did not feel the pressure of obedience or disobedience on their orders directly shows the average yield management accountant responsible for the recommendation

is 76%, SD (26.95%), proving that the responsibility is on the decision of management accountants budget recommendations. As for the average shift sense of responsibility on the management accountant of the CEO and CFO respectively 75%. This shows despite management accountants provide budget recommendations according to initial estimates, yet they are not as fully responsible for the recommendation although in the calculation of the initial budget estimates are correct. Table 6 is other evidence however budgeting process in the company every manager-manager is not responsible for recommendations of their respective divisions. Thus, could also be fears in the achievement of set budget, and indirect impact on the performance evaluation, incentives or compensation.

Table 4: Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
4.368 <sup>a</sup>	19	34	.000

a. Groups with only one case are ignored in computing the test of homogeneity of variance for BS

One way Anova analysis results show the value of which is presented in Table 7, indicating the numbers levene Statistics 4.368 at significant level of 0.000 with significant level at 0.05 ( $p < 0.05$ ) so as to test the variance between groups (categories) of independent variables have variants same. In this test proves unable to refuse H2 (Hypothesis accepted). Proving that management accountants who violate company policy and raised its recommendation on the budget, they are less responsible for their decisions than the management accountant who does not change the initial budget recommendation. As for testing the  $R^2 = .024$  (2.4%),  $F = 1.517$  at significant level of .104 with a significance level ( $p > 0.05$ ). Hali this means that there is a significant relationship between the dependent variable (budgetary slack) with the dependent variable (perceived responsibility). Changes in budgetary slack variation is explained by the independent variable of 2.4%. This means that the responsibility for increasing perceived increase budgetary slack. The results of this study are consistent with research Grediani and sugiri (2010) which states that the higher the perceived shift of responsibility, the higher the creation of budgetary slack. The process of creation of budgetary slack with regard to shifting the responsibility of subordinates due to pressure from employers, the determination of the initial budget recommendations subordinates will be more accountable for its decisions. However, after pressure from superiors to make changes on the budget led to a shift of responsibility of subordinates on a set budget. Subordinates feel for changes to the budget is the responsibility of the employer alone.

Hypothesis 3 testing, One way Anova analysis results show the value of which is presented indicating the numbers levene Statistics 4.368 at significant level of 0.000 with significant level at 0.05 ( $p < 0.05$ ) so as to test the variance between groups (categories) of independent variables have variants same. In this test proves unable to refuse H2 (Hypothesis support). Proving that violate the management accountant and raise their budget recommendations do not feel any perceived procedural fairness of their decisions, rather than management accountants who do not change their initial budget recommendations. As for testing the  $R^2 = 0.03$  (3%),  $F = 0.256$  at significant level 0.614 with a significance level ( $p > 0.05$ ). This means that there is a significant relationship between the dependent variable (budgetary slack) with the dependent variable (perceived procedural justice). Changes in budgetary slack variation is explained by the independent variable of 2%.

When someone feels that a decision based on a fair process, then they will be more committed in achieving the goals, because everything will be directed to their mind when they feel is fair. This study is consistent with research Wasito and Sholihin (2004) which states that an increase in perceived procedural justice every individual in the budgeting process though with the involvement of such individuals create budgetary slack and improve the performance of managers. In particular, the participation of every individual in the budgeting process creates a sense of higher justice, which has also increased the commitment of managers on the purpose of budgeting which can further improve the performance of the managers involved (Libby, 2003). Thus, when one is given the opportunity to participate in the budgeting process, a person will feel confident that their opinion is a tool to achieve the results of the budget preparation purposes, and to improve the perception and self-confidence to achieve budget goals. Besides improving the relationship between individual and group participation in budget jointly formulate short-term plans set out in the budget. Applying these concepts to the business environment, suggesting that increased participation in budgeting should improve the perception of fairness.

The results of this study prove that how a person's beliefs about equity, fairness and justice affect their decisions in the work. The assumption of motivation for someone to manage the balance between what they have and gained (Bindberg et al, 2007). This has an impact on every individual will seek to minimize the negative emotions by raising and lowering the input or output in work or decide something that affects every individual.

### **Discussion and Conclusion**

This study aimed to test whether management accountants under pressure observance of the immediate supervisor for violating company policy budget and create budgetary slack will result in recommendations higher budget compared to the initial budget estimates. And whether management accountants who violate the company's budget policy and raised its recommendation on the initial budget will feel less responsible for their decisions or management accountants feel perceived procedural justice than management accountant who does not change the initial budget recommendation.

Based on analysis of test one sample *t* test showed that the average budget recommendations generated higher than the initial budget estimates. Based on one way Anova test showed that the average accountant management raised its recommendation on the budget was less responsible than those who did not raise the budget recommendations. So the results of this study support the hypotheses proposed. In addition the average management accountant who raised on the budgets get perceived procedural fairness in the preparation of the budget. This study contributes to predict budgetary slack to include personal factors such as individual characteristics and perceived procedural justice research results empirically support.

This study has several limitations, namely the first laboratory situation that allows participants to be used in this study. This study is only an economic faculty of university students, so it must be cautious in generalizing the results of this study. This study aimed to test whether management accountants under pressure observance of the immediate supervisor for violating company policy budget and create budgetary slack will result in recommendations higher budget compared to the initial budget estimates. And whether management accountants who violate the company's budget policy and raised its recommendation on the initial budget will feel less responsible for their decisions or management accountants feel perceived procedural justice than management accountant who does not change the initial budget recommendation. Based on analysis of test one sample *t* test showed that the average budget recommendations generated higher than the initial budget estimates. Based on one way Anova test showed that the average accountant management raised its recommendation on the budget was less responsible than those who did not raise the budget recommendations. So the results of this

study support the hypotheses proposed. In addition the average management accountant who raised on the budgets get perceived procedural fairness in the preparation of the budget. This study contributes to predict budgetary slack to include personal factors such as individual characteristics and perceived procedural justice research results empirically support.

This study has several limitations, namely the first laboratory situation that allows the participants can discuss with other participants and both participants used in this study comes only from the economic faculty of students Widyatama University, so it must be cautious in generalizing the results of this study.

In this study, there are limitations that affect the results of research and can not be avoided by the researcher. The limitations are as follows (1) The study only focused the investigation on the condition of obedience pressure as indicators of budget creation. No difference between treatments in the experiment. (2) The use of item-item questionnaire to measure perceived procedural fairness and the pressure of responsibility which is the weakness of this study, which are difficult to measure one's personal use items with questions. (3) To avoid respondent bias or the low response rate, the case study method can be used as a replacement questionnaire. Future research has suggested can use variables other individual characteristics, which affect the responsibility decision data towards creation of budgetary slack. Future research is expected to evaluate the factors that mediate and moderate the influence of pressure obedience, such as testing a variable of organizational culture or national culture, leadership style, budget negotiations. This relates to the results of responsibility and perceived procedural justice to the budget recommendations that are in the zone of compromise shows the indecision of accountants management to obey superior orders directly.

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# Comparative Analysis of Payment Method between Digital Money and Non-Digital Money toward the Process of Customer Purchase Decision: Survey on Tokopedia Customers in Bandung, Indonesia

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## Abstract

At 2016, research data from eMarketer statistics estimates that almost 8.6 million people who shop in the e-commerce industry using internet. That estimates increased from the previous year which reached 7.9 million people. With the development of e-commerce industry, has a impact is emergence of new payment method using digital money or electronic money to ease the transaction in the e-commerce industry.

Based on statistics from Bank Indonesia, over a period of 3 years (2015-2017) that the amount of digital money reached 1,777,643,998 instruments with an average increase is 11%. However, when compared with the total population of Indonesia which reached 250 million, the penetration of digital money still low eventhough has been introduced since 2009. Digital money can not yet replace from traditional money such cash and using credit or debit cards. In fact, industry parties cooperate with the government continue to socialize the program of digital money. This is possibly caused from business problems models that have not been optimal, lack of standardized of digital money, and about education, socialization, and technical development costs of digital money are relatively expensive.

Types of research are kuantitative and descriptive analysis also measuring a comparison analysis by using a regression analysis and for hypothesis testing using t-test. The result of this research is digital money payment method is more influential than non-digital money payment method toward the process of customer purchase decision.

**Keywords:** Digital Money, Bandung, Indonesia, Non-digital Money, Payment Methode, Process of Customer Purchase Decision

## Introduction

In the e-commerce industry, Indonesia already has a asset that is a very large market volume. With a population of 250 million (the largest in ASEAN), Indonesia can be a very promising e-commerce market. In order to encourage online transactions, the government has issued a special economic policy package to facilitate and protect e-commerce business domestically (Barhansyah in Kompasiana, 2017).

At 2016, that almost 8.6 million people who shop in the e-commerce industry using internet. That estimates increased from the previous year which reached 7.9 million people. With the growing number of people who know the Internet called the Z generation (Gen Z) born in the digital age make the habit of shopping goods and services switch by online that previously

conventionally. E-consumer in Indonesia is the most promising in the world. Half of the 250 million population are young people under the age of 30 (Barhansyah in Kompasiana, 2017). With the development of e-commerce industry, has a impact is emergence of new payment method using digital money or electronic money to ease the transaction in the e-commerce industry. Digital money or electronic money (e-money) is money that used to conduct transactions on the internet by electronic means by using computer networks such as internet and digital price storage systems. The digital money has a stored-value or prepaid value which is the amount of money is stored in an electronic media that will be reduced in every payment process.

In connection with the issuance of Bank Indonesia Regulation (PBI) no. 11/12 / PBI / 2009 dated April 13, 2009 concerning Electronic Money, that started April 13, 2009 the regulation of Electronic Money separately from Card-Based Payment Instruments arrangements. That regulation (PBI) consists of permitting of procedures and transfers, administrating procedures, monitoring, improving technological of security and sanctions (Bank Indonesia 2018). The potential development of digital money in Indonesia is enormous. Based on statistics from Bank Indonesia, for 3 years (2015-2017) the amount of digital money reached 1,777,643,998 instruments with an average increase of 11%.

Although viewed from the data above that the digital money instrument from year to year had been increased, but compared with the Indonesian population (over 250 million), digital money penetration are still low digital money penetration is still low despite being introduced since 2009. Digital money can not yet replace traditional method such cash and using credit or debit card. In fact, industry parties cooperate with the government continue to socialize the program of digital money. This is possibly caused from:

1. The business problems models that have not been optimal. There is no profitable model for all digital money industry parties in Indonesia.
2. Lack of standardized of digital money. This has led to the difficulty of interoperability among digital money publishers in Indonesia.
3. The problem of education, socialization, and technical development costs of digital money are relatively expensive. In this case, regulatory support (government) is required in establishing a pricing incentives scheme for digital money than non-digital money (Al Hafiz in Marketeer, 2016).

### **Literature Review**

Payment is a fund transfer activity to fulfill an obligation arising from an economic activity. These payments occur daily, involving thousands of diverse economic transactions, such as buying and selling of goods and services, purchasing and repayment of credit, involving billions of rupiahs with various means of payment such as cash payments with currency, checks, bilyet giro, money orders, other. (Sanjaya Ade, 2015).

Definition of payment system according to Undang-undang no. 23 of 1999 concerning Bank Indonesia article 1 point 6: "A system that includes a set of rules, institutions and mechanisms used to implement the transfer of funds to meet an obligation arising from an economic activity".

According to (Mustafid & Gunawan, 2008) that the method of payment is a customer's decision-making through which method or method of payment to be selected from various other alternatives that match the conditions available to purchase a product. In measuring the effectiveness of payment methods can be seen from:

1. Level of ease in using payment method,
2. The diversity of payment methods, and
3. Level of sophistication in payment methods

The difference between digital money and non-digital money is money used in Internet transactions with electronically. Usually, these transactions involve the computer networks (such as internet and digital pricing systems). Electronic money has a stored-value or prepaid value in which a certain amount of money is stored in an electronic media owned by a person. The value of money in e-money will be reduced when customers use it for payments such as E-cash, E-checks, and E-wallets. (Barhansyah in Kompasiana, 2017).

Meanwhile, the non-digital money is a traditional payment method that is still high and widely used by Indonesian people specially in Indonesia because of the habit for decades. In this research, several types categorized as non-digital money are as follows:

1. Payment instruments using cash such as coins and paper;
2. Payment instrument using demand deposit such as check or bilyet giro;
3. Payment instruments using cards such as the use of debit cards (ATMs) and credit cards.

Five steps of the process of customer purchase decision by Kotler and Keller (2012) are as follows:

1. Identified the needs

The identified of needs arises when the customer faces a problem that is a difference between the expectation and the actual situation. The need is triggered by the stimulus so that can be recognized. A marketer needs to identify the circumstances that trigger a particular need and then gather information from the customers to identify the stimuli which most often arouse the interest of a product.

2. Searching information

When customers need goods or services to fulfil the needs, the customer will find more about the existence of products or services which are desired. The more information received will add more value and more customer satisfaction. When customers get more information then awareness of the customer's knowledge and the future of brands will change.

3. Evaluate alternatives

Evaluate alternative is a process of recognizing product and brand based on customer criteria. Evaluation criteria are a set of attributes or characteristics of products and services used to evaluate and assess alternative options. Customers will look for certain benefits then evaluate product attributes. More information about company's goods and services will help eliminate other brands competitors. Marketing mix is very influential here, customers will choose goods or services that provide the highest satisfaction for himself.

4. Purchase decision

Customers will process information about brand to make a purchase decision. At this step, customers buy alternative goods or services that are considered to satisfy their needs and provide the highest satisfaction. Among the two factors between purchase intentions and purchasing decisions toward the attitudes of customers, the extent to which other people's attitudes reduce the preferred alternatives will depend on two things: first, the intensity of others' negative attitudes toward alternatives favored by the customer; second, customer motivation to obey the wishes of others.

5. Post-purchase behaviour

The customer decision process does not end when the product is purchased, but continues until the post-purchase period. The customer's decision is a function of how closely the buyer's expectations of a performance of product than the reality. After using the goods or services, the customer compares the performance level of a product with the expectation of the product and determines between the satisfaction or dissatisfaction with the product. Satisfaction occurs when customer expectations can be satisfied or even exceed by the performance of product and dissatisfaction occurs when product performance is below

expectations. When the customer is satisfied then they will make repeat purchase also will tell the experience of satisfaction to friends or other and vice versa if customers feel let down then they will leave the product.

### **Method**

This type of research uses descriptive quantitative method according from Sugiyono (2013:13) that quantitative method is a research methods based on the philosophy of positivism, used to examine the population or a particular sample, sampel picking techniques are generally done randomly, data collection using research instruments, quantitative data analysis with the aim to test the predefined hypothesis.

While the meaning of descriptive analysis method according to Sugiyono (2013: 206) is a statistic used to analyze data by describing the data that has been collected as it is without intending to make conclusions that apply to the public or generalization.

The population in this research are the customers who made the respondents with the limitations or frames as follows:

1. Tokopedia Customers,
2. Have experience in transactions using both digital and non digital money
3. Domiciled in the Bandung.

For the sample size used the theory according to Hair et al (2010) are: "The ratio between the number of subjects and the number of independent variables in the multivariate analysis is recommended about 15 to 20 subjects per independent variable."

The sample size used in this research based on the above theory by choosing the ratio between the number of subjects and the number of independent variables in multivariate analysis is 15, then the sample size is obtained as:

$$n = \text{Ratio (based on multivariate analysis of Hair et al theories) x number of variables or sub independent variables}$$
$$n = 15 \times 6 = 90$$

From the calculation above, the sample size used in this study obtained a sample size (n) of at least 90 respondents.

Sampling technique using purposive sampling because not all samples have the criteria in accordance with the authors specify. According Sugiyono (2014) definition of purposive sampling is a technique of determining the sample with certain considerations.

Sugiyono (2014) explains that simple regression analysis is based on the functional or causal relationship of one independent variable with one dependent variable. While to test and know the influence of independent variable to dependent variable (Ghozali, 2013) by using t distribution that is compare between t arithmetic with t table with significant level equal to 5%. Hypothesis testing criteria  $H_0$  accepted if  $t \text{ arithmetic} < t \text{ table}$  on  $\alpha = 5\%$ ,  $H_0$  is rejected if  $t \text{ arithmetic} > t \text{ table}$  at  $\alpha = 5\%$ .

### **Discussion and Conclusion**

The results and discussion of this research are calculated based on the results of descriptive analysis, regression, and hypothesis test using t test, are the following details:

1. Digital money payment methods are measured using these indicators: Convenience, Diversity, and Sophistication. The results show that the average score of 305 is included in the criteria is "Very High". This indicates based on customer's assessment that digital payment methods are now more effectively used especially for transacting in e-commerce industries such as Tokopedia. Customers are facilitated with the sophistication and diversity of payment methods using digital money such as e-money, e-wallet and e-

- check. Although initially to be able to apply the digital money is not easy, because it must go through a gradual process in the installation through the vendor, but it did not discourage customers to transact using digital money.
2. Non-digital money payment methods are measured using these indicators: Convenience, Diversity, and Sophistication. The calculation results show that the average score of 287 is included in the criteria is "High". This indicates based on customer's assessment that non-digital money payment methods are still widely used (cash, COD, and credit and debit card usage) because of the habits of people who have used them for decades and do not need a gradual process in applying these payment methods. In addition, there is no need for special skills in applying it because it does not need advanced technology in making transactions.
  3. Customer purchasing decision making process measured using these indicators: Identified the needs, Searching information, Evaluate of the alternative, Purchase decision, and Post-purchase behavior. The results show that the average score of 280 is included in criteria "High". This indicates based on customer's assessment that how important each process in the customer's decision to buy a product. The highest score is in post-purchase behavior, which means very influential customer satisfaction in making a repeat purchase of a product.
  4. The results of comparative analysis between digital and non-digital money payment methods to the customer purchasing decision process were measured using simple regression. For digital money payment method has an effect of 62%, compared with non-digital money method has an effect of 18% toward customer's decision making process. This indicates that many customers are now turning to digital money payment methods following the development of sophisticated technology. According to Barhansyah (2017) based on research data from eMarketer statistics in 2016 also estimated to reach 8.6 million people who shop through the internet. So it is not a strange thing if there is a change of culture of Indonesian people in terms of making payments start using digital money. And the method of payment is also influential someone in the process of making a purchase decision of a product. Especially especially for customers who often transact or make payments on product purchases in the e-commerce industry or online business such as Tokopedia.

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# The Influence of Tax Collection by Warning Letter and Distress Warrant on Tax Revenues: Case Study of the Purwakarta Tax Office in 2013-2017

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## Abstract

This study aims to reveal the influence of tax collection by warning letters and distress warrant on tax revenues in Purwakarta Tax Office in 2013-2017. The method used in this study is verification. This study was conducted on data in the form of reports relating to the research variables, in this case a report on tax collection with a warning letter, a tax collection report with a distress warrant and tax revenues in the Purwakarta Tax Office. To analyze the research data, multiple linear regression analysis was used. Based on the results of multiple linear regression analysis shows that warning letter and distress warrant simultaneously affect the tax revenues in the Purwakarta Tax Office in 2013-2017. Partially the warning letter does not affect the tax revenues in Purwakarta Tax Office in 2013-2017, while the distress warrant affects the tax revenues in Purwakarta Tax Office in 2013-2017.

**Keywords:** Warning Letters, Distress Warrant, Tax Revenues

## Introduction

Tax is the main source of potential state revenue to finance government and development activities. The Ministry of Finance of the Republic of Indonesia plans for 2017 state revenues of Rp. 1,736.1 trillion. The country's revenue target is derived from tax revenues amounting to Rp1,472.7 trillion and non-tax state revenues of Rp.260.2 trillion. It can be said that 85% of state revenue comes from the taxation sector ([www.kemenkeu.go.id](http://www.kemenkeu.go.id)). The following is table 1 describes the target and realization of tax revenue in Indonesia in 2013-2017.

Table 1: Target and Realization of Tax Revenue in Indonesia 2013-2017 (Trillion Rupiah)

Year	Target	Realization	Percentage (%)
2013	1.148,36	1.077,3	93,81
2014	1.246,1	1.146,9	92,04
2015	1.489,3	1.235,8	83,3
2016	1.539,2	1.283,6	83,4
2017	1.472,7	1.339	91

Source: Ministry of Finance of the Republic of Indonesia

Based on table 1 above the target ratio and realization of tax revenues as a whole has decreased. In 2017 it has increased but the realization has not reached the target set.

Tax collection is one of the methods carried out by the tax authorities who have a stake in advancing government activities in increasing state revenues in the tax sector. Tax collection is a series of actions so that the taxpayer repays the tax debt and tax collection fees by warning lettering or warning, carrying out billing immediately and at the same time notifying Distress warrants, proposing prevention, carrying out seizures, carrying out hostage taking and selling seized items (Diana Sari, 2013).

Various studies on tax revenue that have been done before showing the results of the pros and cons of the existing theory. Research conducted by Gerry Tjandra. (2015), proving that tax collection with a warning letter has a positive effect on tax revenue. Research conducted by Zakiah M Sahab and Hantoro Arief Gisijanto (2008), Reida Wulan Hudany, Amir Hasan and Azhari Sofyan (2015), Gerry Tjandra. (2015), proves that tax collection by distress warrant has a positive effect on tax revenue, while research conducted by Rohmasari Sitio, Yesi Mutia Basri and Sem Paulus Silalahi (2015), proves that tax collection by distress warrant does not affect tax revenue.

Based on the phenomenon above the author is interested in conducting research on factors that can influence tax revenue, with the title of the research: *The Influence of Tax Collection by Warning Letter and Distress Warrant On Tax Revenues (Case Study in Purwakarta Tax Office in 2013-2017)*.

## **Literature Review**

### ***Tax Collection***

Diana Sari (2013), tax collection is a series of actions so that the Tax Insurer repays Tax Debt and tax collection fees by warning lettering or warning, carrying out instant billing and at the same time, notifying Distress warrants, proposing prevention, foreclosure, hostage taking, selling goods that have been confiscated. Waluyo (2011) tax collection is as a tax collection activity on tax debt to taxpayers is structured so that taxpayers pay off their tax debt and administrative costs, so as to increase tax revenue.

### ***Tax Collection With Warning letter***

Diana Sari (2013), Warning letter is a letter issued by an official to regulate or warn taxpayers to pay off their tax debt. In accordance with Article 5 of the Decree of the Minister of Finance No. 561 / KMK / .04 / 2000 that the tax collection action begins with a warning letter, another warning letter those of the same type by officials or authorities of officials after 7 days from the due date of the tax debt the tax insurer does not pay off his tax debt.

A warning letter is an initial warning letter to a taxpayer who is due to immediately repay the tax obligation or tax payable. So that the higher the issuance of a warning letter, it will increase tax arrears which will affect the increase in tax revenue.

The above theory is in line with the results of research conducted by Gerry Tjandra. (2015), proving that tax collection with a warning letter has a positive effect on tax revenue .

H1: Tax collection with a warning letter and distress warrant partially affects the tax revenues in Purwakarta Tax Office in 2013-2017.

### ***Tax Collection With Distress warrant***

Mardiasmo (2016), Distress warrants are used to collect tax debts and collection fees, where with the issuance of distress warrant, taxpayer is forced to pay tax arrears so as to increase tax revenue. Tax collection by distress warrant is an effort by the government to improve people's welfare and encourage people to be responsible and play a role in economic development.

With the existence of tax collection by distress warrant, the taxpayer who still has tax debt will immediately pay his debt in accordance with the agreement between the taxpayer and the tax bailiff with the time specified in accordance with the legislation in force so that tax revenue

can increase. in line with the results of research conducted by Zakiah M Sahab and Hantoro Arief Gisijanto (2008), Reida Wulan Hudany, Amir Hasan and Azhari Sofyan (2015), Gerry Tjandra. (2015), proving that tax collection by distress warrant has a positive effect on tax revenue.

H2: Tax collection with a distress warrant and distress warrant partially affects the tax revenues in Purwakarta Tax Office in 2013-2017.

### ***Tax Revenues***

Rimsky K Judisseno (2005) the meaning of Tax Revenue is the most potential income for the state because the amount of tax is in line with population growth, economy, and political stability. Definition of tax revenue according to Losina Purnastuti and Rr. Indah Mustikawati (2006) is Tax revenues are all revenues consisting of domestic taxes and international trade taxes.

From the above understanding, it can be concluded that Tax Revenue is the income of funds derived from domestic taxes and international trade taxes because the amount of tax is in line with the rate of economic growth. The indicator of tax revenue according to Siti Kurnia Rahayu (2010) is the amount of tax revenue realization.

### ***Income Tax***

Muljono (2010), Income tax is a direct tax imposed on taxpayers, both taxpayers in their capacity as collectors, as cutters, or as having to pay the tax payable. Based on this understanding, it can be concluded that income tax is a mandatory contribution imposed on the taxpayer on the income received in the tax year.

### **Method**

The research method used in this research is the verification method. The data used in this study is secondary data. The data used in this study are reports that relate to research variables, in this case, a report on tax collection with a warning letter, a tax collection report with a distress warrant and tax revenue in the Purwakarta Tax Office.

The object in this study was tax collection with a warning letter, tax collection by distress warrant and tax revenue. The subject of this research is Purwakarta Tax Office. In this study, the tax revenue studied is specifically personal income tax.

Population in this research is tax collection report with warning letter, tax collection report with distress warrant and tax revenue report in Purwakarta Tax Office. Determination of research sample was carried out by purposive sampling, which has result 42 samples.

Variables in the study entitled The Influence of Tax Collection by Warning letters and Distress warrant On Tax Revenue Case Study in Purwakarta Tax Office in 2013-2017:

Table 2: Variables Operationalization

<b>Variable</b>	<b>Indicator</b>	<b>Scale</b>
X <sub>1</sub> : Warning letter	Number of warning letters issued (Mardiasmo, 2016)	Ratio
X <sub>2</sub> : Distress warrant	Number of distress warrants issued (Mardiasmo, 2016)	Ratio
Y : Tax Revenues	Amount of realization of tax revenue (Siti Kurnia Rahayu, 2010)	Ratio

The data analysis method used in this study is multiple linear regression analysis. Before conducting multiple linear regression testing, it is necessary to first test the classical assumptions (Ghozali, 2012), which consists of Tests for normality, multicollinearity, autocorrelation and heteroskedasticity.

The general formula of linear regression equations for two independent variables is as follows:

$$Y = a + b_1 X_1 + b_2 X_2 + e$$

Description:

- Y : Tax revenues
- X<sub>1</sub> : Warning letter
- X<sub>2</sub> : Distress warrant
- a : Konstanta
- b : coefficient of each independent variable
- e : *Error term*

## Discussion and Conclusion

### *Descriptive analysis*

The results of descriptive data analysis each indicator used in this research at KPP Pratama Purwakarta in 2013-2017.

Table 3: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Warning Letter	42	10,009,700	8,836,280,614	1,234,086,983	1,673,542,294.117
Distress Warrant	42	10,950,750	11,259,665,257	1,540,269,595	2,227,203,848.729
Tax Revenues	42	568,325,301	3,571,930,227	1,519,481,636	773,676,718.077
Valid N (listwise)	42				

The mean value of Rp. Rp.1,234,329,840. warning letter. The lowest warning letter was Rp.20,103,847, in July 2013, whereas the highest warning letter was Rp. 8,836,280,614 in August 2015. The mean value of distress warrants was Rp. 1,540,269,595. The lowest distress warrant value is Rp. 10,950,750 in May 2015, whereas the highest distress warrant value was Rp. 11,259,665,257 in March 2015. The mean value of tax revenues was Rp. 1,519,481,636. The lowest tax revenue value is Rp. 568,325,301 in January 2013, on the contrary, the highest tax revenue value was Rp. 3,571,930,227, in March 2013.

### *Simultaneous Test*

To prove whether a warning letter and a distress warrant simultaneously affect tax revenues, simultaneous testing is carried out with the following statistical hypothesis:

- H<sub>0</sub> : β<sub>i</sub> = 0 : Warning letters and distress warrants simultaneously does not affect the tax revenue
- H<sub>a</sub> : β<sub>i</sub> ≠ 0 : Warning letters and distress warrants simultaneously affect the tax revenue

The hypothesis is tested using F test statistics and with the help of IBM SPSS Statistics 21 software obtained ANOVA output for simultaneous testing as follows.

Table 4: Test Simultaneous (Test F)

ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
1	4237786480	2	21188932400	4.070	.025 <sup>b</sup>
Regression	130166300.00		65083140.00		
1	2030381574	39	52061066019		
Residual	7770106000.000		9233470.000		
Total	2454160222	41			
	7900273000.000				

a. Dependent Variable: TaxRevenue

b. Predictors: (Constant), DistressWarrant, WarningLetter

Based on the results of data processing using IBM SPSS Statistics 21 software, the F count value *Awas* 4.070 with a significance value of 0.025, because the probability of less than 5% was decided to reject *Ho* and receive *Ha*, which means tax collection with warning letters and distress warrant simultaneously affect to tax revenue in Purwakarta Tax Office in 2013-2017.

### *Determination Coefficients*

The coefficient of determination is used to see how much influence the warning letter and distress warrant simultaneously on tax revenues. Based on the results of data processing using IBM SPSS Statistics 21 software obtained the coefficient of determination as follows:

Table 5: The coefficient of determination

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.416 <sup>a</sup>	.173	.130	721,533,547.522

a. Predictors: (Constant), Warning letter, distress warrant

b. Dependent Variable: Tax Revenues

Based on the data contained in table 5 above it can be seen that the coefficient of determination (adjusted R Square) is 0.173 shows that warning letters and distress warrants simultaneously have an effect of 17% on the tax revenues in the Purwakarta Tax Office in 2013-2017. When viewed from the magnitude of the value, it means that there are many other factors other than warning letters and distress warrants which have a greater influence on tax revenue.

### *Partial Test*

Partial testing is carried out to examine the effect of each independent variable on income tax revenue. The t-test statistic value used in the partial test can be seen in the following table.

Table 6: Partial Test (t-test)

Model	Coefficients <sup>a</sup>				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	121970777 4	155991362.3		7.819	.000
1 Warning letter	.092	.068	.200	1.365	.180
Distress warrant	.121	.051	.347	2.376	.023

a. Dependent Variable: Tax Revenues

Tax collection with a warning letter does not affect to tax revenue in the Purwakarta Tax Office. The results of this study are not in line with pre-existing theories. According to Diana Sari (2013) Warning letter is a letter issued by an official to regulate or warn taxpayers to pay off their tax debt. So that the higher the issuance of a warning letter, it will increase tax arrears which will affect the increase in tax revenue.

Tax collection distress warrant affects to tax revenue in the Purwakarta Tax Office. The results of this study are in line with pre-existing theories. According to Mardiasmo (2016), distress warrants are used to collect tax debts and collection fees, where with the issuance of distress warrants taxpayer is forced to pay tax arrears so as to increase tax revenues. The results of this study support the results of previous research conducted by Zakiah M Sahab and Hantoro Arief Gisijanto (2008), Reida Wulan Hudany, Amir Hasan and Azhari Sofyan (2015), Gerry Tjandra. (2015), proving that tax collection by distress warrant has a positive effect on tax revenue.

### Conclusions

1. Tax collection by warning letter does not affect the tax revenues in Purwakarta Tax Office in 2013-2017.
2. Tax collection by distress warrant affects the tax revenues in Purwakarta Tax Office in 2013-2017.
3. Tax collection by warning letter and distress warrant simultaneously affect the tax revenues in Purwakarta Tax Office in 2013-2017.

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# Creating Knowledge Management with the Role of Leadership and Organizational Culture: Evidence from State Owned-Port Company

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## Abstract

The research was conducted to determine whether the leadership and organizational culture have positive and significant impact on knowledge management at State Owned-Port Company. This study has three variables, namely the leadership and organizational culture as an independent variable and knowledge management as the dependent variable. Data obtained from interviews and questionnaires were distributed to the employee population at State Owned-Port Company. This research method uses descriptive method and verification method. Data processing is performed using path analysis. The result of this study indicate that leadership has a significant influence 12,8% on knowledge management and organizational culture has a significant influence 26,7% on knowledge management at State Owned-Port Company. Simultaneously, leadership and organizational culture have total influence 0,958 on knowledge management at State Owned-Port Company.

**Keywords:** Leadership, Organizational Culture, Knowledge Management

## Introduction

Implementation of knowledge management in an enterprise is bound to face obstacles because it involves all employees in the company. It would appear the refusal of employees resulting from the change that must be faced by them in the application of this knowledge management. For the implementation of knowledge management at this stage needs the right leadership that is able to accommodate the needs of employees. According to Robbins (2003: 163), leadership is the ability to influence a group toward the achievement of goals. Leadership is needed to address objections from the parties that do not support the application of knowledge management so that eventually all employees will be motivated to become involved in the process of knowledge management.

Through knowledge management, competent human capital will be generated State Owned-Port Company according to the company's core business as an Terminal Operator. This human capital in the future is expected to generate further innovations that can be a source of competitive advantage for State Owned-Port Company. This human capital will eventually become an important asset for State Owned-Port Company. In order to be an asset for the company is certainly a lot of activities that must be performed by employees in connection with the process of knowledge management.

There are eight implementations / programs of knowledge management is done in State Owned-Port Company, which consists of a Community of Practice (CoP), Knowledge Sharing, Knowledge Cafe, Capturing Knowledge, Innovation Implementation, Library (Offline),

Knowledge Taxonomy and Knowledge Portal System. Based on the interview on March 1, 2016 by the person in charge of knowledge management, of the eight existing programs that run only three programs, namely Knowledge Sharing, offline library, and Knowledge Cafe. However, the implementation of the three programs is assessed not maximized because of the expected output of these two things still do not fulfill the purpose of the application of knowledge management at State Owned-Port Company, innovation. This happens due to the employee's own individual factors, the role of leadership and organizational culture in State Owned-Port Company.

Table 1: Employee Satisfaction and Engagement Survey 2015

No	Variable	Score
1.	Strategy and Organization	3.91
2.	Career management	3.79
3.	Training and Development	3.86
4.	Performance Management	3.92
5.	Remuneration and Welfare	4.03
6.	Industrial relations	3.35
7.	Work Environment and Corporate Culture	3.47
<b>Average</b>		<b>3.76</b>

Employee satisfaction towards leadership in State Owned-Port Company based on the results of Engagement Employee Satisfaction Survey and 2015 in Table 1, indicated by the variable Work Environment and Corporate Culture. When sorted from highest to lowest value then this variable is ranked sixth with a score 3.47. And by grouping values, a rank value of 1 to 5, the value in category "Pretty in accordance with the needs of the employees". Employees felt their working relationship with the boss is not conducive due to the lack of communication open, and still the superior cannot be an example and backup subordinates well. The absence of a Chief Knowledge Officer specially appointed by the company responsible for knowledge management has also become one of the causes of the ineffectiveness of the eighth knowledge management program is established.

In the Care core values are key behaviors such sensitive and alert attitude that should be owned by every employee of State Owned-Port Company. In the main behavior is sensitive, one of the characteristics are substantially the employee is expected to adopt the habit of learning on an ongoing basis. It can be seen in Table 1, employee satisfaction score of organizational culture variables contained in the Work Environment and Cultural Organization were in a category of "Pretty in accordance with the needs of employees". Employees feel the application of the corporate culture needs to be scaled back. Increased organizational culture implementation is expected to support all management processes, particularly knowledge management.

Those conditions indicate the existence of a gap between core cultural values embraced State Owned-Port Company with the values held by employees. Ideally, employees should be able to adopt the habit of learning in sustainability, but in reality the culture of the company has not been implemented to the fullest, where employees are not accustomed to sharing knowledge which may result in gaps in knowledge among employees. Above occurs because of an organizational culture that has not been established, where the culture of the organization has not accustom employees to share their knowledge on their own initiative. Therefore State Owned-Port Company need to change the culture that could become the foundation for the company in order to create the environment to share knowledge and learning among employees.

Those findings indicate that knowledge management at State Owned-Port Company is still not running well due to several factors that inhibit knowledge management such as the lack of a leadership role in the company as well as an organizational culture that does not yet support the programs contained in the knowledge management.

**Design/ Methodology/ Approach**

This research using verification method. Verification analysis according to Nazir (1999: 63) is a method of research that aims to determine the relationship between variables through a research hypothesis testing using statistical calculations. In this study, verification methods used to examine the relationship between the independent variables are leadership and organizational culture and the dependent variable is the knowledge management at State Owned-Port Company.

The study, using the entire population or total sampling (census). This sampling with expected result can be more likely to approach the real value and also is expected to minimize the occurrence of errors / deviations from the population value. According to data from the HR State Owned-Port Company, the total population found in State Owned-Port Company is as many as 412 employees.

**Findings**

From table 2, t value for the variable Leadership (X1) is greater than t table, which means partially Leadership variable has significant influence on the Knowledge Management in State Owned-Port Company. As for how much influence the Leadership Knowledge Management, can be seen from the value of r square (determination coefficient) of 0.128 which means that the leadership has the effect of 12.8% in the form of Knowledge Management in State Owned-Port Company.

Table 2: Leadership (X) Effect toward Knowledge Management (Y)

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.357 <sup>a</sup>	.128	.126	3.21537

a. Predictors: (Constant), GK

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	24.774	2.034		12.181	.000
	GK	.285	.038	.357	7.587	.000

a. Dependent Variable: KM

From Table, 3 t value for the variable Organization Culture (X2) is greater than t table, which means partially has significant influence on Knowledge Management in State Owned-Port Company. As for how the influence of organizational culture on Knowledge Management, can be seen from the value of r square (coefficient of determination) of 0.267 which indicates that organizational culture has influence amounted to 26.7% in the form of Knowledge Management in State Owned-Port Company.

Table 3: Organizational Culture (X) Effect toward *Knowledge Management* (Y)

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.517 <sup>a</sup>	.267	.265	2.94763

a. Predictors: (Constant), BO

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.116	1.598		13.210	.000
	BO	.284	.024	.517	11.964	.000

a. Dependent Variable: KM

Based on table 4 it can be seen that the significance value for the variable Leadership to organizational culture is 0,000 less than the value of  $\alpha$  (0:05) so that it can be said that the leadership does have a positive influence and significant in shaping the organizational culture in State Owned-Port Company. As for how big the impact can be seen from r-square value (coefficient of determination) of 0.057 which means that the leadership effecting 5.7% in shaping the organizational culture in State Owned-Port Company.

Table 4: Leadership (X<sub>1</sub>) Effect toward Organizational Culture (X<sub>2</sub>)

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.238 <sup>a</sup>	.057	.054	6.075

a. Predictors: (Constant), GK

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	48.319	3.843		12.575	.000
	GK	.345	.071	.238	4.864	.000

a. Dependent Variable: BO

Partial regression analysis results showed that the two independent variables used in this study, leadership and organizational culture, both have significant positive influence on Knowledge Management implemented in State Owned-Port Company. But of the two independent variables, organizational culture becomes a variable that has a greater influence on Knowledge Management, compared the variables of leadership. This shows that strengthen or expedite the

implementation of Knowledge Management in State Owned-Port Company is an organizational culture that is in it. So that employees felt the Knowledge Management activities have become daily and implemented as is customary in the work.

Table 5: Simultaneous Analysis

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.570 <sup>a</sup>	.325	.322	2.83178

a. Predictors: (Constant), BO, GK

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1514.837	2	757.418	94.453	.000 <sup>a</sup>
	Residual	3143.432	392	8.019		
	Total	4658.268	394			

a. Predictors: (Constant), BO, GK

b. Dependent Variable: KM

Alternate Hypothesis	F	df	F table	Recommendation	Conclusion
X <sub>1</sub> and X <sub>2</sub> simultaneously effecting Y	94.453	df <sub>1</sub> = 2 df <sub>2</sub> = 392	3.04	H <sub>0</sub> rejected	Significant

Table 5 shows the results of ANOVA analysis and the coefficient of determination. We can see that simultaneously, independent variable has a value of R Square of 0.325 which means that independent variable has an influence of 32.5% to the dependent variable. While the value of significance at 0.000 ANOVA worth less than the default value of  $\alpha$  (0.05), indicating that simultaneously, two independent variables (leadership and organizational culture) has an influence on the dependent variable (Knowledge Management).

Table 6: Direct and Indirect Effect Leadership (X<sub>1</sub>) and Organizational Culture (X<sub>2</sub>) toward Knowledge Management (Y)

Variable	Direct effect toward Knowledge Management	Dierct effect toward Organizational Culture	Indirect effect toward Knowledge Management
Leadership	0.357	0.238	(0.238 x 0.357) = 0.084
Organizational Culture	0.517	-	-

From table 6 we can know that leadership has low direct effect in shaping knowledge management that is equal to 0.357, while the indirect effect through organizational culture just get a value of 0.084. While the organizational culture has a strong influence on knowledge management. So based on the above calculation, the total effect is equal to  $0.357 + 0.084 + 0.517 = 0.958$ . This suggests that leadership through organizational culture has very strong influence on knowledge management.

### **Research Limitations and Implications**

Based on the analysis that has been carried out and developed, it can be concluded as follows:

1. Leadership in State Owned-Port Company in good level, which means leadership that in this company considered suitable by their employees. Good leadership is expected to improve knowledge management activities through the captainship in motivating and an example for employees to get involved to share knowledge to their fellow colleagues.

The corporate culture at State Owned-Port Company in strong level, means the company has a culture where employees feel comfortable working at this company. Strong organizational culture may be further directed to the culture of sharing, where a culture of sharing can support knowledge management activities at State Owned-Port Company.

Knowledge management at State Owned-Port Company in effective level, which means that the company has been able to focus the activities that exist in knowledge management on the formation of the behavior and attitude of the employees, so that they can be aware and make sure knowledge of what they have and what knowledge can be distributed to the company.

2. Leadership has positive influence on knowledge management amounted to 12.8%, which means that any change in leadership will affect knowledge management.
3. Organizational culture has positive influence on knowledge management amounted to 26.7%, which means that the organizational culture provides a greater influence than the leadership, so that any change in the organizational culture will influence the knowledge management.

### **Practical Implications**

Based on the research that has been described above, the researchers gave the following recommendations:

1. To improve the leadership improvements needed for the leaders relating to the employment relationship with subordinate who was not conducive. Increasing the trust the leader to his subordinates to take important decisions, for example through the assignment or transfer of authority to subordinates so that in the end can build good trust from subordinates to superiors. If employees are given the freedom to take decisions in the work by their leader, the employee will feel that their leader was right to trust and responsibility a great job on their own.
2. To improve the organizational culture improvements needed in terms aggressiveness which shows that the company is still less allow employees to be competitive in the work. One way that can be done to improve the competitive spirit of employees is to provide a special reward for employees through knowledge management activities, such as holding a contest of innovation that idea came from knowledge management activities are carried out within the company.
3. To improve knowledge management improvement needed in terms of personal knowledge that shows that the knowledge of the individual employee cannot be grown through their own experience. In the knowledge management activities of the company

should further implement the best practices so that employees can immediately find an application directly from a knowledge of the job to then be applied to their daily work.

### **Originality/ Value**

#### **Leadership**

According to Kartono (2006: 10), leadership is an aspirational strength, strength of spirit, creative and moral force, capable of affecting the members to change attitudes, so that they become conform to the wishes of the leader. Meanwhile, according to Robbins (2003: 163), leadership is the ability to influence a group toward the achievement of goals. Leadership is a process that affects in determining the organization, motivating followers to achieve the objective behavior, influence to improve the group and its culture (Riva, 2005: 2).

According to Nawawi (2006: 128-169) leadership theory can be divided into trait theory, behavior theory, situational theory, and the theory of attribution. Preliminary studies on leadership conducted in the 1940s-1950s, focusing on the properties of the leader. The researchers tried to find individual characteristics that distinguish a successful leader and failed leaders. And finally tried to link characteristics such as personality, emotional, physical, intellectual and other individual characteristics of a successful leader in the past.

In contrast to the trait theory, the behavioral approach is focused on the effectiveness of a leader, not the appearance of the leader. Behavioral theory focuses on two leadership styles are task-oriented leadership style (task orientation) and orientation on employees (employee orientation). The orientation of the task is the behavior of leaders who emphasize that the tasks executed properly by directing and controlling strictly subordinate. Employee orientation is a behavior that emphasizes leadership to subordinates in carrying out their duties involve subordinates in decision-making processes relating to their duties, and develop friendly relations of mutual trust and mutual respect between the group members.

According to Bateman and Snell (2009: 450-453) either approach to nature or groups proved inadequate to express leadership theory thoroughly, attention redirected on aspects of situational leadership, as Fiedler's Contingency Model, Hersey and Blanchard's Situational Theory and Path-Goal Theory.

#### **Organizational Culture**

Organizational culture is a value that is believed to be the characteristics given to the members of an organization. According to George and Jones (2002: 531), organizational culture is informal values, norms, and beliefs that control how an individual and groups interact in organizations, both within the organization and outside the organization.

Bateman and Snell (2009: 75) says that organizational culture is a collection of various assumptions, goals, and activities relating to the organization of mutually shared by employees. Organizational culture gives an overview of how to organize and guide the behavior of employees in the work. Mangkunagara (2005: 113) concluded that organizational culture is a set of assumptions or system of beliefs, values, and norms developed within the organization guiding the behavior of its members to address the problems of external adaptation and internal integration.

Based on the definitions described above generally state that organizational culture is a system of values, beliefs, and customs within an organization owned jointly by all members of the company, which later in the process will affect the behavior of employees in doing the job. Cultural organizations also serve as a differentiator between companies because of the special characteristics formed by the culture.

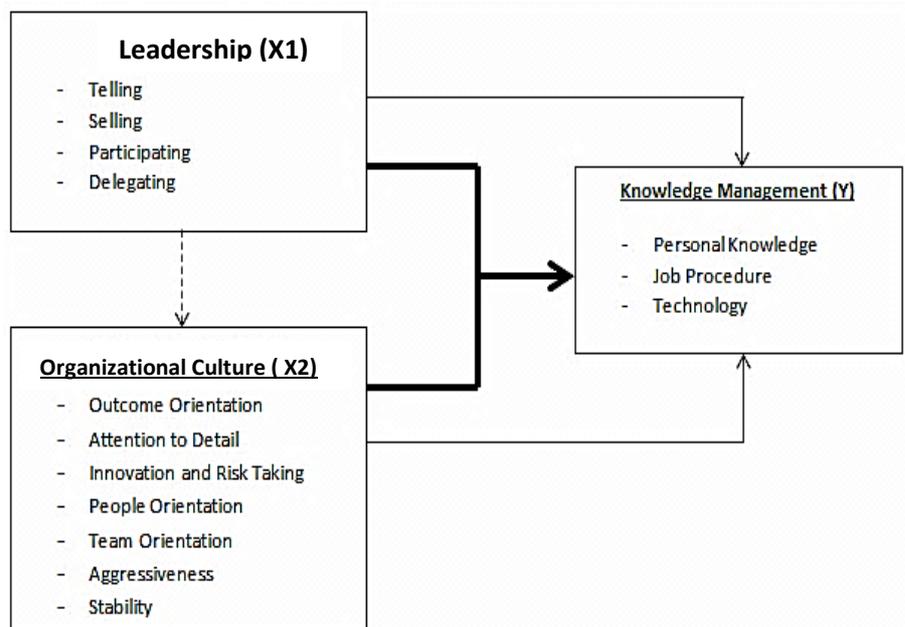
### Knowledge Management

Knowledge management is an organizational activity in managing knowledge as an asset, where the various strategies exist channeling the right knowledge to the right people and in a short time, until they can interact, share knowledge and apply it in their daily work in order to improve organizational performance. Dalkir (2005: 2) say knowledge management is a systematic approach is used to ensure the use of knowledge in the organization to do the maximum, in which knowledge is combined with the expertise, competence, ideas, innovation, and personal ideas of employees in order to create an organization that is more effective and efficient.

Tiwana (2000: 5) says that knowledge management as knowledge management company can generate sustainable competitive advantage (sustainable competitive advantage) by optimizing the process of creating, communicating, and applying all the knowledge required in order to achieve business goals. According to Swann in Loermans (2002: 286), knowledge management is the process of creating, acquire, share, and use knowledge in order to improve the learning and performance of the company.

According to Honeycutt (2002), knowledge management is a discipline that treats intellectual capital assets managed. Bateman and Snell (2009: 9) says that knowledge management is an activity that aims to discover and utilize the intellectual resources within an organization. Knowledge management aims to find, store, distribute and share broadly crucial resource that is owned by an organization, such as employee skills, skills, network connections and existing policies. Thus, it can be concluded that knowledge management is a process to search for, locate, store, and distribute knowledge (expertise, skills, experience, and network) owned by individuals within an organization to organizations and individuals that were provided in the organization.

The theories and the opinion of the experts above illustrates the influence of organizational culture on knowledge management. The author describes the relationship in the following research model.



**Keywords:** Leadership, Organizational Culture, Knowledge Management

## Conclusion

Nowadays, company placed knowledge as the source of the driving force of the organization, to become a competitive organization and for competitiveness. When a person leaves the company, the company must realize that they are left with very valuable knowledge. All companies face the same problem, namely how to use knowledge more effectively than their competitors. In an organization, the knowledge obtained from individuals or groups of people who have the knowledge or knowledge that are sometimes in organizational routines. Knowledge gained through structured media such as books, documents, portals, person to person relationships that range from mild to scientific talks, and others

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# Financial Performance and Systemic Risk Effect on Stock Return: Case Study on Oil and Gas Companies Listed in IDX Year 2011-2016

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## **Abstract**

This study aims to determine whether the return on assets, debt to equity ratio, and systematic risk effect on stock returns on oil and gas companies listed on the Stock Exchange period 2011-2016. The research method used is descriptive method verifikatif with research sample as much as 5 oil and gas company. The technique of selecting the sample using purposive sampling, While the method of analysis used is analisis regresi panel data at significance level 5%, by using Eviews9. Partial result shows that ROA is not influential to stock return and DER have negative and significant effect to stock return, while Beta have positive and significant effect to stock return and simultaneously ROA, DER, and beta have positive effect to stock return.

**Keywords:** Number One, Number Two, Number Three, Number Four, Number Five

## **INTRODUCTION**

Each country has a big influence on the existence of the capital market, because the capital market becomes one of the means for effective investment activities to accelerate the development of the state. Through the capital market the company can obtain funds to conduct economic activities, this is evidenced by the increasing number of new investors in the capital market until the end of 2016 amounted to 23.47% (BEI : 2016). Capital market is a place where various parties, especially companies selling stocks and bonds with the purpose of the sale will be used as an additional and or strengthen the company's capital (Fahmi ; 2013 : 55). Activities in the capital market include the sale and purchase of securities such as stocks, mutual funds and bonds. Oil and gas stock prices are currently under pressure as oil prices slump nearly three percent as US output increases and OPEC exports increase.

CEO of Longview Economics, Chris Watling makes an analysis with predicts that world oil prices could decline to US \$ 10 / barrel in the next 6 to 8 years, as the development of alternative energy is more attractive to investors. The development of electric vehicles made by various countries in the world became a factor of falling oil prices. Because 70% of the world's oil use is for transportation. International Energy Agency (IEA), said the world oil market in 2018 will improve and there is hope for prices to rise again. OPEC's world oil exporters are also confident that there will be price stability ahead. World oil prices fell from their highest level of US \$ 120 / barrel in June 2014 due to weakening demand, strong US dollar, and the boom of shale gas in the US. This condition makes OPEC members cut production, and invite manufacturers outside OPEC. Indonesia's oil production in 2018 is predicted to decline, due to lower world oil prices. Minister of Mineral Resources Energy, Ignasius Jonan, said in the 2018 State Budget

Draft Plan, Indonesia's oil price is set at US \$ 48 per barrel with a production target of 800 thousand barrels per day and 1.2 million barrels of gas. The decline is due to the condition of Indonesia's oil well production and oil search activities due to the unfavorable world oil prices. Profits are the goal of investors in the capital market, production and oil prices that will decrease will have an impact on investors because investors will not invest in companies that are experiencing problems and must consider the various information the company's condition is reflected through the company's performance.

The financial performance of the company is important because it can be used as a tool to know whether the company is developing or not, Fahmi states (2012: 2) financial performance is an analysis conducted to see how far a company has implemented by using the rules - the rules of financial implementation good and right. The company's financial performance can be measured in various ways, which is commonly used is to use financial ratios that is the ratio of liquidity, activity, profitability, and leverage. In this research use indicator Return On Assets and Debt to Equity Ratio because: 1). Often used to predict stock prices and measure the effectiveness of companies in generating profits by utilizing assets owned. 2). Reflects the company's ability to fulfill all its obligations indicated by what part of its own capital is used to repay the debt.

One of the investment instruments traded in the stock market is stocks, stock prices affect the profit level the higher the stock price, the higher the rate of return earned investors. Investors use various means to obtain expected returns, either self-analysis or utilizing the tools provided by capital market analysts such as brokers and investment managers. Return is the profit earned by the company, individual, and institution of the result of the investment policy it undertakes. Tandililin (2012: 102) states that the stock return is one of the factors that motivate investors to invest and is also a reward for the courage investors bear the risk of investments made.

### **IDENTIFICATION OF PROBLEMS**

1. How is the development of the company's financial performance measured by Return On Assets (ROA) and Debt to Equity Ratio (DER) ratio of Oil and Gas Companies listed in Indonesia Stock Exchange (IDX) for 2011-2016 period?
2. What is the development of Systematic Risk in Oil and Gas Companies listed in Indonesia Stock Exchange (IDX) period 2011-2016?
3. How is the Development of Stock Return on Oil and Gas Companies listed in Indonesia Stock Exchange for 2011-2016 period?
4. What is the influence of the company's financial performance as measured by Return on Assets (ROA) and Debt to Equity Ratio (DER) and Systematic Risk to Return of Shares of Oil and Gas Companies listed in Indonesian Stock Exchange (BEI) for 2011-2016 period?

### **RESEARCH PURPOSES**

1. Knowing the development of the company's financial performance as measured by return on assets and debt to equity ratio ratio of oil and gas companies listed in Indonesia stock exchange period 2011-2016.
2. Recognize Systematic Risk Development in Oil and Gas Companies listed in Indonesia Stock Exchange period 2011-2016.
3. Knowing the development of Stock Return on Oil and Gas Company listed in Indonesia Stock Exchange period 2011-2016.
4. To know the influence of company's financial performance as measured by Return On Assets ratio and Debt to Equity Ratio and Systematic Risk to stock return on Oil and Gas Company listed in Indonesia Stock Exchange period 2011-2016.

Research methods Type of research used in this research is explanatory research. Explanatory research is a research that intends to explain the position of the variables studied and the relationship between one variable with another. The research method used is descriptive method with verifikatif approach.

### **LITERATURE REVIEW**

Tandelilin (2010: 26) says that: "The stock market is a market for trading securities that generally have more than one year of age, such as stocks and bonds Sunariyah (2011: 4) states: "The capital market in general is an organized financial system, including commercial banks and all financial intermediaries, and overall securities in circulation." Based on that understanding. The conclusion is that capital markets are those with shortages or excess funds can trade securities systematically and organized through intermediaries and securities companies that have been issued. Fahmi (2012: 2) states financial performance is: Financial performance is an analysis conducted to see how far a company has implemented by using the rules - the rules of financial implementation properly and correctly ". Rudianto (2013: 189) explains that: Financial performance is the result or achievement that has been achieved by the company's management in carrying out its function of managing the company's assets effectively for a certain period ". Juningan (2012: 239) states the financial performance of : Financial performance is an illustration to see how far the company has implemented by using the rules of financial implementation as well and correctly as in making a financial statement that has met the standards or provisions in the Financial Accounting Standards or Generally Accepted Accounting Principles. Financial Performance Measurement In financial decision-making, financial managers first know the financial condition of the company. To know the company's financial condition it is necessary to analyze the company's financial statements. This analysis aims to compare the company's current financial performance with plans / budgets and with financial performance in the past, or compare with the financial performance of competitors.

Financial ratio analysis can be used to measure and evaluate company's financial performance, according to Sutrisno (2012: 215) financial ratios obtained by linking elements of financial statements.

### **DATA AND METHODS**

This research was conducted on Oil and Gas Company listed in Indonesia Stock Exchange period 2011-2016. Data analysis method used in this research is panel data regression analysis to get a comprehensive picture about the influence of Return On Assets, Debt to Equity Ratio, and Systematic Risk to Stock Return using EViews 9 program.

This journal uses multiple linear regression analysis because the independent variables are more than one which requires simultaneous testing using F count. Regression is used to determine the relationship between two variables, namely: the independent variable (Y) and the independent variable (X). In other words, regression analysis is an analysis to determine the form of functional relationships. Significance is determined by comparing F count with F table or see significance on output result.

To find out whether there is a significant influence of some independent variables on the dependent variable. In this study used panel data regression is data that has the number of cross section and the number of time series.

**RESEARCH RESULT AND DISCUSSION****1. Development of Return On Assets on Oil and Gas Companies Listed on Indonesia Stock Exchange Period 2011-2016.**

Companies that have the highest ROA value in 2012 when compared with other companies are PT. Ratu Prabu Energi, Tbk with ROA value of 6%, where the company has the highest net profit that can be obtained by using all the assets owned by the company. The lowest ROA value in 2013 is PT. Medco Energi Internasional, Tbk with ROA value of 0.80%, where the company can maintain the value of ROA from the previous year which is the year 2012. Companies that have the highest ROA value in 2014 are PT. Elnusa, Tbk with ROA value of 10%, where the company has increased the value of ROA in 2013 which is 5.45% to 10% in 2014 or increased by 4.55%, where the company has the highest net profit that can be obtained by using all assets owned by the company. The lowest ROA value in 2013 is PT. Medco Energi Internasional, Tbk with ROA value of 0.80%, where the company can maintain the value of ROA from the previous year which is the year 2012. Companies that have the highest ROA value in 2014 are PT. Elnusa, Tbk with ROA value of 10%, where the company has increased the value of ROA in 2013 which is 5.45% to 10% in 2014 or increased by 4.55%, where the company has the highest net profit that can be obtained by using all assets owned by the company. Companies that have the lowest ROA value in 2014 are PT. Medco Energi Internasional, Tbk with ROA value of 0.30%, where the company has decreased the value of ROA in 2013 which is 0.80% to 0.30% in 2014 or decreased by 0.50%. The decrease in the value of ROA occurred due to the decrease in net profit of the company in 2013 which was \$ 170,273,000 to \$ 37,036,000 in 2014 or decreased by 78.25%.

Companies that have the highest ROA value in 2015 are PT. Elnusa, Tbk with an ROA value of 8.52%. Although the highest in 2015, but PT. Elnusa, Tbk has decreased ROA value in 2014 which is 10% to 8.52% in 2015 or decreased by 1.48%. Companies that have the lowest ROA value in 2015 are PT. Medco Energi Internasional, Tbk with ROA value of -6.50%, where the company decreased the value of ROA in 2014 that is 0.30% to -6.50% or decreased by 6.80%. Companies that have the highest ROA value in 2016 are PT. Elnusa, Tbk with ROA value of 7.42%, the company has decreased ROA value from 2015 ie 8.52% to 7.42% in 2016 or decreased by 1.10%. The decline in ROA value occurs due to the decrease in net profit of the company in 2015 amounting to Rp 718,810,000,000 to Rp 614,585,000,000 in 2016 or decreased by 14.50%. While the lowest ROA value in 2016 is PT. Ratu Prabu Energi, Tbk with value of ROA equal to 0.00% where the company does not get profit by using all owned wealth. Based on the above table, companies tend to decrease ROA from 2014 to 2016. PT. Elnusa, Tbk, PT. Radiant Utama Interisco, Tbk, PT. Ratu Prabu Energi, Tbk, and PT. Benakat Integra, Tbk companies are decreasing almost every year. Only PT. Medco Energi Internasional. Tbk recorded an increase in 2015. Low ROA indicates that the company earns a small net profit from assets or assets owned by the company. While the high ROA indicates that the company's ability to obtain net income from assets or assets owned by the company.

**2. Development of Debt to Equity Ratio of Oil and Gas Companies Listed on BEI Period 2011-2016**

Companies that have the highest DER value in 2012 when compared with other companies are PT. Radiant Utama Interisco, Tbk that is with the acquisition value of DER of 3.94% where the company most loans compared with other companies. Companies that have the lowest DER value in 2012 are PT. Elnusa, Tbk by acquiring DER value of 0.54% where the company has the least amount of loan or debt compared to other companies. Companies that have the highest DER value in 2013 when compared with other companies are PT. Radiant Utama Interisco, Tbk by acquiring DER value of 3.88%, although the company experienced a decrease in the previous DER value in 2012 by 3.94% or decreased by 0.06%, where the company borrowed

the most from other companies. Companies that have the lowest DER value in 2013 are PT. Elnusa, Tbk that is with the acquisition of DER value of 0.34%. The Company has decreased DER value in 2012 by 0.54% to 0.34% in 2013 or decreased by 0.20%. In this case the increase in DER value occurs due to a decrease in loans or debts made by the company that is Rp 649,516 million in 2012 to Rp 562,014,000,000 in 2013 or decreased by Rp 87,502,000,000. Companies that have the highest DER value in 2014 are PT. Radiant Utama Interisco, Tbk that is by acquisition of DER value equal to 3.07%. Although the highest, but the company has decreased the value of DER from the previous year which is 3.88% to 3.07% in 2014. This is due to the increase in the company's own capital of Rp 261,898,000,000 in 2013 to Rp 303,595,000,000 in 2014, meaning that companies prefer to run their business by using the cost of their own capital compared with loan capital so that companies do not face big risks. Companies with the lowest DER is PT. Elnusa, Tbk of 0.17%, where the company has the least amount of loans or debts compared to other companies.

Companies that have the highest DER value in 2015 when compared with other companies are PT. Medco Energi Internasional, Tbk by acquiring DER value of 2.30%, where the company experienced an increase of DER value from the previous year which is 1.30% in 2014 to 2.30% in 2015 or increased by 1%. This is due to an increase in loans or debts of \$ 1,780,700,000 in 2014 to \$ 2,208,200,000 in 2015. While companies with the lowest DER value in 2015 are PT. Elnusa, Tbk with DER value of 0.28%, where the company experienced an increase in DER value from the previous year which is 0.17% to 0.28% in 2015. This means that companies prefer to run their business by using the cost of loan capital compared with own capital even though the company faces a great risk. Companies that have the highest DER value in 2016 compared to other companies are PT. Medco Energi Internasional, Tbk with DER value of 2.20%, the company with the lowest DER in 2016 is PT. Elnusa, Tbk with DER value of 0.19%, the company has decreased DER value from 2015 that is 0.28% to 0.19% in 2016 decreased by 0.09%. This is because the increase in the company's own capital is \$ 701,593,859 in 2015 to \$ 890,508,856 in 2016, meaning that companies prefer to run their business using the cost of their own capital than the cost of borrowing companies will not face a big risk.

Companies are likely to see DER decline seen from PT. Radiant Utama Interisco, Tbk, PT. Elnusa, Tbk, and PT. Ratu Prabu Energi, Tbk charts showing that these companies are decreasing almost every year. While PT. Medco Energi Internasional, Tbk and PT. Benakat Integra, Tbk tend to increase every year. Companies with the highest DER during 2012 to 2014 are PT. Radiant Utama Interisco, Tbk. PT. Radiant Utama Interisco, Tbk continues to decrease DER value annually until 2016, while companies earning the lowest DER are ELSA in 2013, 2015 and 2016. The low DER indicates that the debt the company uses is lower than its equity, meaning the company's burden to pay interest on the loan can be reduced. A high DER indicates that companies are more likely to use debt than their own. This means that the company's burden to pay interest on loans is greater.

### **3. Systematic Risk Development of Oil and Gas Companies Listed on Indonesia Stock Exchange Period 2011-2016**

The beta value of each firm fluctuates, in which the increase or decrease in beta can be seen differently in each year. From 2012 to 2014 the ups and downs of beta values tend to be stagnant except PT. Elnusa, Tbk which recorded the highest beta value in 2014. In 2015 - 2016 up and down the value of beta occurred significantly where PT. Benakat Integra, Tbk recorded the lowest beta value of -5.62 and PT. Medco Energi Internasional, Tbk recorded the highest beta value of 2.39 in 2016. Beta is a measure of risk stemming from the relationship between the profit rate of a stock and the market. This risk stems from some of the fundamental factors of the company and the market characteristics of the company's stock. Beta is a useful gauge and stock price variability is very important in considering risk assessment.

#### **4. Development of Stock Return on Oil and Gas Companies Listed on Indonesia Stock Exchange Period 2011-2016**

The highest share return occurred in 2015, namely PT. Ratu Prabu Energi, Tbk 0.140%, where only in 2015 the company has a positive return value, whereas in the previous three years that is 2012, 2013, and 2014 ARTI has a psychositive return value as well but low value. PT. Ratu Prabu Energi, Tbk also recorded the lowest share return value in 2016 is -0.070%. While other companies namely PT. Benakat Integra Tbk, PT. Elnusa Tbk, PT. Medco Energi Internasional Tbk, and PT. Radiant Utama Interisco, Tbk jurstu showed a significant increase of stock return value. The ups and downs in stock returns are caused by ROA, DER, and market risk of a company. In accordance with the existing theory that the higher the ROA and the risks faced by the company will be higher also investors expect the return of shares but the opposite if high DER will decrease the stock return.

#### **DESCRIPTIVE STATISTICS TESTING RESULTS**

Descriptive analysis aims to know the description of each variable used in research. Descriptive statistics used in this study include the average value, maximum value, and minimum value. Return On Assets (ROA) which is the ratio to assess how much the return of assets owned by the company shows an average value of 2.18. This means that the average sample company earned a net profit of 2.18 of the company's assets. The maximum value of ROA is 8.8500 which is owned by PT. Elnusa, Tbk in 2014 and the minimum ROA is -6,4000 owned by PT. Medco Energi Internasional, Tbk in 2015. Debt to Equity Ratio (DER) is a ratio that describes the ratio of total debt to total equity of the firm showing the average value of 1.7426. This means that the average sample company has total debt greater than the total assets owned by the company. The maximum value of DER is 3.9400 which is owned by PT. Radiant Utama Interisco, Tbk in 2012 and the minimum DER is 0.2000 owned by PT. Benakat Integra, Tbk in 2012.

Beta is a measure of risk stemming from the relationship between the profit rate of a stock and the market showing an average value of 0.4810. This means the average rate of profit share risk with market conditions. The maximum value of Beta is 2,3900 owned by PT. Medco Energi Internasional, Tbk in 2016 and the minimum value of Beta is -1.0300 owned by PT. Ratu Prabu Energi, Tbk in 2013. Return of shares is the profit received by the investor on the investment policy performed shows the average value of 0.0086. This means that the average amount of profit received by investors amounted to 0.99%. The maximum value of stock return is 0.1010 which means the highest profit received reaches 10.1% owned by PT. Ratu Prabu Energi, Tbk in 2015 and the minimum value received is -0.076 owned by PT. Ratu Prabu Energi, Tbk in 2016.

Based on the above table then the regression model in this study are:

$$Y = 0.001 + 0.0001ROA - 0.004DER + 0.029BETA$$

Interpretation of regression analysis results are:

1. The regression model constant of 0.001 indicates that if ROA, DER and Beta of oil and gas companies listed on the BEI are zero, then Stock Return will rise by 0.001.
2. The value of the regression coefficient of ROA is positive 0.0001 indicates if ROA increases by one unit in oil and gas companies listed on the Stock Exchange, then the Share Return will increase by 0.0001.
3. The DER regression coefficient value is negative at -0.004 which indicates if DER increases by one unit in the oil and gas companies listed on the BEI, then the Stock Return decreases by -0.004.

4. Beta regression coefficient value is positive equal to 0.029 which indicate if Beta value increase by one unit in oil and gas company sector listed in BEI, then Return of Stock up by 0,029.

## **DISCUSSION**

### **Influence Return On Assets On Stock Return**

Test results show that ROA does not have a significant effect on stock returns on oil and gas companies listed on the Stock Exchange period 2011-2016. This research is in line with previous research conducted by (Husein and Mahfud, 2015) stating that ROA has no effect and significant to stock return. This means that larger ROAs tend to have lower stock returns. Mining companies such as oil and gas tend to have high ROA but the profit generated preferably used by companies for exploration and investment in other mining sectors.

### **The Effect of Debt to Equity Ratio Against Stock Return**

The test results showed that the DER variable has a negative and significant effect on stock returns on oil and gas companies listed on the BEI period 2011-2016. The results of research are in line with previous research conducted by (Giovanni Budialim, 2013) which states that DER has a significant effect on stock returns. This means that the higher or lower DER will not affect the stock return rate obtained. In oil and gas or mining companies, the company's activities are mostly derived from third party funds. In this case the third party is considered a debt. Where in this study debt funds tend to rise and fall with a stable. So that the increase and decrease of debt does not affect the oil and gas companies listed on the Stock Exchange period 2011-2016.

### **The Effect of Systemic Risk (Beta) On Stock Return**

The result shows that the variable of beta value have positive and significant influence to stock return on oil and gas company registered in BEI period 2011-2016. This result is not in line with previous studies conducted by Inggit Nugroho Sukhemi, 2015) and (Giovanni Budialim, 2013) which states that systematic risk negatively and significantly affects partially or jointly on stock returns. The systematic risk or condition of a market will affect the rate of profit gained, the greater the systematic risk the greater the expected rate of return of the investment by the investor.

### **Research Implications**

The results of this study indicate that the increase and decrease of ROA and DER does not affect the level of profitability obtained by the company. Company's financial performance is used to see how far the company has implemented by using the rules of financial implementation properly and correctly. The company's financial performance that can measure stock return is profitability ratio and solvency ratio. According to some studies hinted that ROA as a ratio that represents profitability and DER representing solvency ratios can affect the financial performance of the company. ROA has no effect on stock returns on oil and gas companies listed in the 2011-2016 period. The results indicate that the DER or the amount of debt compared to the capital itself and the risk that exists on any investment that is affecting the overall or systematic risk that affects the stock return of oil and gas companies is beta. Beta is a systematic measure of risk of a securities or portfolio relative to beta market risk (Jogiyanto, 2010: 381)

Increase and decrease ROA ratio has no effect and significant to stock return. Show that the size of the ROA does not affect the return rate received by investors. These findings are in line with research conducted by a number of previous researchers and can be taken into consideration for investors in making investment policy decisions on shares - shares in the

Indonesia Stock Exchange. DER ratio has influence and significant to stock return. Show that the higher or lower DER will affect the stock return rate obtained. In oil and gas or mining companies, the company's activities are mostly derived from third party funds or debt, investors should still pay attention and consider the investment policy that will be done. Investors are always expecting profits from the investment but certainly can not be separated from the risks that exist. It is reasonable if the investor expects the highest return from the investment but must consider the risks to be borne by the investment.

The results show that beta has a positive and significant effect on stock return of oil and gas companies listed in BEI period 2011-2016, the condition of an existing market will affect the level of profit obtained. Companies incorporated in the Indonesia Stock Exchange is a company whose shares are in great demand by investors and potential investors who expect the company to be in a stable condition so profitable in conducting investment activities.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Conclusions**

1. The development of Return On Assets companies tend to decrease in value from 2014 to 2016. Financial performance measured through ROA that represents profitability ratios have no effect and significant to Return Shares in oil and gas companies listed on the Indonesia Stock Exchange period 2011- 2016.
2. The development of Debt to Equity Ratio (DER) tends to decrease in value every year until 2016. Financial performance measured through DER representing solvency ratio has a negative and significant effect on the Return of Shares in oil and gas companies listed in Indonesia Stock Exchange period 2011 -2016.
3. The beta value of each firm fluctuates, in which the increase or decrease in beta can be seen differently in each year. Systematic risk measured through beta has a positive and significant effect on Stock Return on oil and gas companies listed in Indonesia Stock Exchange period 2011-2016.
4. Financial performance measured through Return On Assets (ROA) and Debt to Equity Ratio (DER) and Systematic Risk as measured through Beta together have a significant influence on Stock Return.

### **RECOMMENDATIONS**

1. Doing research by adding another variable for similar research both from fundamental factor and also economic condition factor.
2. Doing research by adding another variable for similar research both from fundamental factor and also economic condition factor.

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# The Color Meaning in *Go Green* Logo: A Semiotics Study

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## **Abstract**

Signs are around us. The alphabets, colors, pictures, shapes, sizes are some of the examples of signs. Every color has their meaning, and this meaning absolutely relates to the linguistics area especially to the semiotics. *Go green* is an effort to preserve and save the planet from the various damages. Logo as sign nowadays becomes popular as identity of group, society and even a country. The analysis of this research basically concerns issue of the color meaning which is depicted through the sign systems found in the *go green* logo. Principally, the research is a descriptive qualitative research with Charles Sanders Peirce's semiotics as the main tool to examine the data. The findings indicate, the color which is used in all logo are commonly using white and green as their dominant color which is white symbolized as "purity", and green symbolized as "peace"

**Keywords:** Color, Go Green, Logo, Semiotics

## **Introduction**

Humans use language to express their thoughts and feelings and to communicate each other. To support the process of communication, language must be able to represent ideas of speakers and be understood by the hearers. Due to those requirements, language is dynamic; it develops rapidly, showing its creative side as stated by O'Grady (1997:1) "*because communication is not restricted to fix set of topics, language must do something more than provide a package of ready-made messages. It must enable to us to produce and understand new words, phrases and sentences as the need arises. In short, human language must be creative, allowing novelty and innovation in response to new experiences, situation and thoughts*".

As a mean of verbal communication, the language used in conversation should be suitable with the situation where the conversation takes place. Kridalaksana (1993: 184) divides verbal communication into three levels: formal, casual and substandard. First, formal level (*ragam resmi*) is *ragam bahasa yang dipakai bila kawan bicara adalah orang yang dihormati oleh pembicara, atau bila topic pembicaraan bersifat resmi*. This is to say that formal level occurs when the opponent is respected by the speaker or in formal forum. Second, casual level (*ragam santai*) is *tahap situasional dari bahasa lisan, sebagian ditandai oleh penggunaan slang dan ellipsis dan dipergunakan dalam lingkungan yang akrab*. It can be stated that this level occurs in an informal situation where the usage of slang and ellipsis is allowed. The last is substandard. This level is *dipergunakan dalam pemakaian tak resmi dan dikalangan orang yang saling mengenal*. It can be stated that this level occurs in less informal conversation.

Languages can exist physically as speech or writing, but they cannot be understood simply by collecting example sentences, because languages are productive systems and so there is an infinite number of possible sentences in all languages. Languages are known by individual people, and so can be seen as mental phenomena, in which individual people know the rules which constitute the language. Chomsky (1972:213) has emphasized that languages can be

seen primarily as psychological phenomena, in that the ability to use and understand language is an ability which we have as individual people.

One of the other forms of psychological phenomena is color which consists of non-verbal meaning. Every color has their meaning, and this meaning absolutely relates to the linguistics area especially to the semiotics. As a semiotics concerning to the meaning in a sign, or anything that has non-verbal elements, so the semiotics could solve the problem in relating to the color. Sign and symbols in broad meanings can be studied as Myers (2008:243) stated, :Signs and symbols can be studied not only in language (both written and spoken forms) but also in rituals, culture, images, art and color- in fact, anything that can be 'read as text'. Accordingly, the decision of using semiotics is based on a consideration that semiotics method has been found useful in the explanation of numerous phenomena of mass communication (Eco, 1976:13). Based on Chandlers (2002:217), the advantage of using semiotics in analyzing color is as it helps us to realize that meaning is not passively absorbed but arises only in the active process of interpretation.

Any forms of communication human execute is basically a meaning making process. This process is then closely related to creation and interpretation. Therefore in studying the sign created, Peirce (1992) has offered the triangle theory of semiotics which consists of three elements, and there are sign, object and interpretant. A sign as anything which is so determined by something else, called its object, and so determines an effect upon a person, which effect I call its interpretant, that the latter is thereby mediately determined by the former.

In this case, the colors are related to *go green* logo. *Go green* is defined as making more environmentally friendly decisions such as to "reduce, reuse and recycle." (<http://www.yourdictionary.com/go-green>). This study conducted to figure out the color meaning which are used as the logo of *go green*

Starting from the consideration above, merely single question to be answered in this research is "what are the color meanings which are used as the logo of *go green*?"

## Literature Review

### Color

Color The human eye distinguishes colors using light sensitive cells in the retina. These sensors are rods and cones. The rods give us our night vision and can function in low intensities of light, but cannot distinguish color. So the colors relate to the eye and the perception of one thing or something that impress the eyes. The producers of the products use this theory to impress the customers in purchasing their products. Color is one of the main elements in the packages of the product. It function is as the impressive point to the customers. In this research, the researcher explains about the meaning of the color and also the relationship between the color and linguistics.

A basic color term in the Berlin and Kay (1969: 2) classification exhibits the following four characteristics: it is monolexic, its signification is not embraced by another color term, it is psychologically salient, and has a broad scope of application. Color terms that do not possess at least one of these properties are non-basic (e.g. Crimson, snow-white, and tawny). According to these criteria, English has a complete inventory of eleven color terms including white, black, red, green, yellow, blue, brown, purple, pink, orange, and grey.

### Color Meaning

There is a fundamental distinction to be drawn and maintained between categorical colors and the coloredness of colored things, between something having a color of a definite kind (as

opposed to some other kind) and its merely being colored (as opposed to being colorless). Color terms are simply words which are used to denote the property of color, and in most languages, a special subset of such words can be identified, which Berlin and Kay (1969) named basic color terms. Berlin and Kay (1969) listed a number of criteria which they used to distinguish basic color terms from other words used to denote color.

They considered color terms to be basic only if they were known by all speakers of the language and were highly salient psychologically, and if they did not just name a subset of the colors denoted by another color word and their meanings were not predictable from the meanings of their component parts. Levinson's (2000) color naming has produced the first experimentally documented example of a language lacking a set of basic color terms that partitions the perceptual color space.

The former implicates knowledge, the vehicle for which is language. The latter is a visible property of things closely related to other such properties such as shape, size, and texture. The researcher attributes colors to objects according to a conceptual scheme acquire in the course of learning a vocabulary and grammar of color. It is manifest in participation in the customary practice of identifying colors, with reference to public samples and in accordance with the grammar of the language. The grammar of color is antecedent to all theories of color, and is presupposed by them. However, grammar does not – cannot – tell us anything about the physical nature of colored things or how these are causally discriminated in sight.

This is the province of natural science. Conversely, the knowledge that informs identification when we categorize a color is not accessible to traditional methods of scientific investigation. Only an analysis of the logic of color concepts can do this. The concept of color is the creation of language under the influence of culture (Gage 1993, Lyons 1995; in Heryono: 2011:30). Hence, if we are to refer to colors as such, we must have at our disposal a language with a color vocabulary. The matter of what is and what is not a color word, however, is not a straight forward one. Not all cultures acknowledge color categories. Unlike Western cultures, whose languages have profuse color referring terminologies, the historical product of developments in art and craft, as well as in philosophy and in science, many non-Western cultures have languages that refer to colors and to color only sparingly (Lyons 1995). In these cultures the category of color may be indistinguishably mixed up with other experiential categories, for example, what we would separately call texture, luminosity, freshness, and so on (Conklin 1955). Eiseman (2000) categorized the colors based on the meaning. Here are the colors and their general meaning:

1. RED in its various incarnations has more personal associations than any other color. It can typify the lowly stop sign, or the inference of a bordello. Recognized as a stimulant, red is inherently exciting, and can be useful in restaurants and other high-power settings. The volume of red is directly related to the amount of energy perceived. Small amounts can add vigor to an otherwise calm space, without the negative connotations of broad use. *Some common words associated with red: power, energy, excitement, strength, hot, seductive, passionate, aggressive, attention-getter, fire, blood, danger.*
2. ORANGE, a close relative to red, sparks more controversy than any other hue. There is usually a strong positive or negative association ranging from juvenile plastic toys, the fruit of the same name, or the radiant colors of a sunset. Orange has more broad-based appeal in forms such as rust, terra cotta, or apricot and is powerful as a component in “ethnic” palettes. As with red, small doses can be very energizing and flattering. It can also bring needed warmth to cold climates, or windowless environments. *Some common words associated with orange: radiant, bold, warm, flamboyant, vibrant, happy, harvest, autumn, fruity, friendly, garish, juvenile.*

3. **YELLOW** is traditionally associated with enlightenment, and its close associate, gold, with wealth and success. In its many variations, from custard to mellow amber to the very active primary, yellow will advance from surrounding colors and instill energy and optimism. The color of the sun, yellow will warm and lift spirits, raise expectations and is appropriate to areas that require this related mood or where attention is needed. *Some words associated with yellow: friendly, joyful, light, free, open, vigorous, sunny, stimulating, cheery, fun, luminous, and exuberant.*
4. **GREEN** requires two discussions. As green occupies more space in the spectrum visible to the human eye. It can cover a lot of territory of perception. Green is so pervasive in the natural world, landscape and seascape that it is the ideal backdrop because we are so used to seeing it everywhere as such. The “natural” side of green, from forest to lime, is seen as refreshing and tranquil, with a natural balance of cool and warm (blue+yellow). There is, however, the “institutional” side of green, associated with illness, or Government Issue. Aside from the more slimy, or bilious greens that conjure up negative associations, green is second only to blue as a favorite color. *Some words associated with green: restful, tranquil, soothing, cool, refreshing, traditional, stable, conservative, calm, spacious, and relaxing.*
5. **BLUE** is the overwhelming “favorite color.” It is the sky and the promise of beyond. It is the color of no-frills, honest, working-class uniforms. The collective color of the spirit, blue invokes the qualities of rest. The distant receding character makes blue ideal for small spaces, or places for study and reflection. The calming qualities of blue inherently slow down activity and cool down hot surroundings. *Some common words associated with blue: clean, relaxing, serene, refreshing, classic, conservative, traditional, hospitable, professional, dependable, confident, and nautical.*
6. **PURPLE** embodies the balance of red stimulation and blue calm. This dichotomy can cause unrest and uneasiness unless the undertone is clearly defined, and the blue or red-based purple can then be characterized by the prevailing undertone. A sense of exclusivity and the mystic and royal qualities associated with purple come from its early rarity and expense. *Some words associated with purple: regal, sophisticated, rich, dignified, magic, spiritual, mysterious, exotic, and melancholy.*
7. **WHITE** in both English and Chinese, whites denote purity and innocence. This is why the brides are dressed in white in western countries. A white lie in English is a lie that does no harm to others and it is merely more convenient or polite than telling the truth. In Chinese it is explicitly associated with purity and innocence. It is also associated with meaning of invalidation and terror. In English, white is sometimes associated with something bad. In English expression such as white elephant, white feather and white night, white has bad or unpleasant connotation. White elephant is something useless, seldom used, or too costly to be worth maintaining. White feather, derived from cock fighting in which a game cock displaying the white rim of feather under his hackles acknowledgement defeat and wants to give up, is a symbol of fear, cowardice or timidity. A white night is simply a sleepless night.
8. **BLACK** is often associated with negative qualities such as illegality, darkness, hardship, and sadness. For instance, black market. In other words, black is associated to the eternity and the strength.
9. **PINK** is often associated with the feminine and fragility. Pink usually signifies women and its sort of things related to them. Sensitive is also signified by pink.

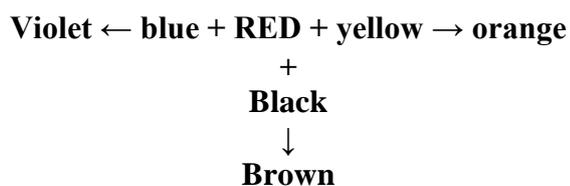
Based on Kandinsky (1972), colors are discussed in the context of ‘opponent pairs’ in groups in which a single major color is bordered by two others derived from it.

1. Yellow: Yellow is regarded by Kandinsky as a basic color that is inherently ‘warm and powerful’ and its effect is ‘eccentric’. The radiant intensity of this color increases with lighter coloration, i.e., upon increasing addition of white to the yellow. Yellow is maddening, psychologically unsettling and angry looking.
2. Blue: According to Kandinsky, blue is a basic essentially warm color, (but he later contradicts himself and sees blue as cool). It is a ‘concentric’ color and hence its effect is self-centering. Kandinsky states that blue arouses sensations of purity and longing for the infinite and with increase of tone, i.e. with the addition of black; the above described qualities assume connotations of sadness and mourning. On the other hand, as blue becomes lighter by addition of white it induces the apathy and silence that can be experienced when observing far distant skies.
3. Green: Green is the intermediate between yellow and blue with all the implications thereof. According to Kandinsky’s approach, on the artist’s palette green is obtained by cooling yellow by the addition of blue. Upon the mixing of a small amount of blue with yellow a ‘non-tangible sickly’ hue is produced, but if an additional amount of blue is added, ‘normal’ green appears. Green implies utter complacency and absolute rest; this being so since the all-energetic yellow is countered by the complacent blue. It therefore follows that green pleases the eye of the weary observer since it elicits only static quietude: however, prolonged viewing leads to boredom. Despite the above, Kandinsky states that green are potentially reassuring, a property arising from its two constituent components.

Kandinsky terminates his outline of color theory with the statement that what he describes is ‘the outcome of experimental and spiritual feelings and is not based upon any positive scientific foundations’. Those colors are formed in the spiritual relationship of the author. There are colors that imply to the scientific color such as the Berlin and Kay and also the Bayesian color that actually have their own calculation and formula to calculate how hard or how saturate the colors are. In this research, the researcher does not apply the Bayesian theory in calculating color because the researcher has no background of math program.

Here are the Kandinsky theories about the mixture of colors:

The Red-Violet-Brown-Orange Complex: This complex can be schematically presented as follows:



**Diagram of Kandinsky**

1. Red is considered a lively warm color and arouses increased unease. It lacks the proclivity to frivolity and discomfort of the eccentric yellow. Red tends to concentricity and signifies male maturity.
2. Brown: As seen in the above scheme, brown is comprised by the darkening of red by black. The latter modifies the former, but nevertheless brown contains a certain amount of ‘curbed force’.
3. Orange: Indicates that orange is to be had by supplementation of red with yellow. Red, which is basically concentric and ‘self-containing’, is partially metamorphosing d to eccentricity. Kandinsky thus states that orange symbolizes a quiet, self-contained strong person who is fully conscious of his own powers.

4. Violet: Obtained by addition of blue to red. This combination has a cooling effect on the red and thereby converts it to a frayed sickly hue and consequently in certain parts of the world violet is the color of mourning garb, as is black.

### ***Go Green***

Based on (<http://www.yourdictionary.com/go-green>) *go green* is defined as making more environmentally friendly decisions such as to "reduce, reuse and recycle."

The reasons for *go green* are:

1. Endangered animals, deforestation, global warming and growing landfills are having a detrimental effect on planet earth, and some day may make the planet a very unpleasant place to live.
2. *Go green* involves taking steps to minimize the damage humans are doing; to live an environmentally responsible life, and to make choices that will help preserve the earth and its non-renewable resources instead of destroying them.
3. By eating natural, organic, locally produced foods, you save on carbon emissions, limit the use of dangerous pesticides and have a healthier meal.

### **Logo**

Nowadays, logo is used as identity of group, society and even a country. Besides, logo functions as a symbolic and graphic representation of the main features of a company, a product/service, or a website. It is the single element which can provide feedback to the customer base. When creating a logo for any media it needs to instantly connect the target customers to a particular company or product.

Furthermore, logo which is created should be easily understood and memorized by everyone. The human mnemonic value is one of the most important considerations when it comes to creating a successful logo. Each logo has its own meaning. Based on Murphy, John and Michael Rowe (1998) logo is formed from four elements, there are: line, shape, color, and typography. Logo as an art work will always connected to the fine art which has made it.

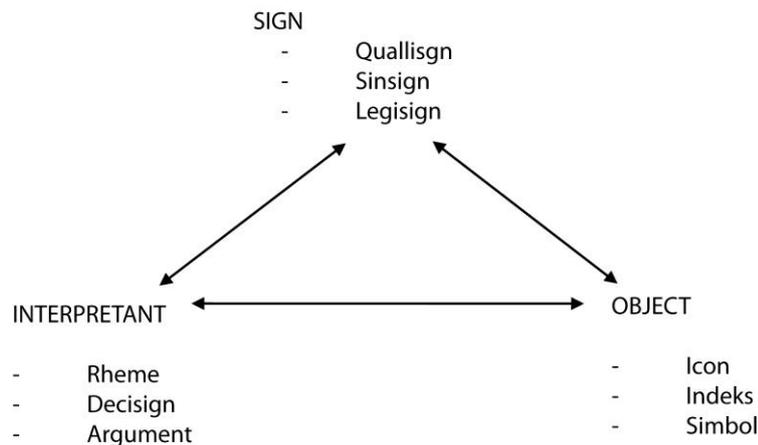
### **Semiotics**

The study of semiotics categorically is further phase of structuralisms (a study of internal structure of literary works). Terminologically, semiotics is from Greek "semelon" that refers to sign. The shortest definition of semiotic, in simple way, is a systematic study of sign (Eagleton, 1996:87). On the other hand, semiotics, on one of the broadest definitions based on Eco's (1976: 7) perception, is deal with everything that can be taken as a sign. Wibowo (2011:7), in addition, similarly argues that semiotics can correspondingly be identified as a study which examines the wide series of objects, events, and cultures as a sign. Therefore, derived from the explanations above, semiotics noticeably implies a study which its fundamental belief is that every single phenomenon reflects a sign system fulfilled of significance.

Broadly speaking, discussing semiotics extremely cannot be isolated from the semiotic experts' viewpoints about the sign system, such as Ferdinand de Saussure, Charles Sander Pierce, and Roland Barthes. Ferdinand de Saussure offers a model that is a sign system operates in the dyadic tradition in which the two parts of the sign system consist of a 'sign vehicle' and its meaning (Chandler, 2007: 14). The sign system according to Saussure is composed of a 'signifier' (the form that the sign takes) and a 'signified' (the concept to which it refers). In this case, the sign is the whole that fundamentally is generated from the association of the signifier with the signified. Moreover, the relationship between the signifier and the signified is referred to as 'signification'.

In contrast to Saussure’s theory of the sign system in the form of dyadic model, Charles Sanders Peirce formulates his own model of the sign system; that is a triadic (three-part) model (Chandler, 2007: 29). In this model, a sign system substantially consists of ‘representamen’ (the form which the sign takes), ‘interpretant’ (the *sense* made of the sign), and ‘object’ (something beyond the sign to which it refers). To qualify as a sign, all three elements according to Peirce are enormously essential. The sign is a unity of what is represented (the object), how it is represented (the representamen) and how it is interpreted (the interpretant). Furthermore, the interaction between the ‘representamen’, the ‘object’ and the ‘interpretant’ is referred to by Peirce as ‘semeiosis’.

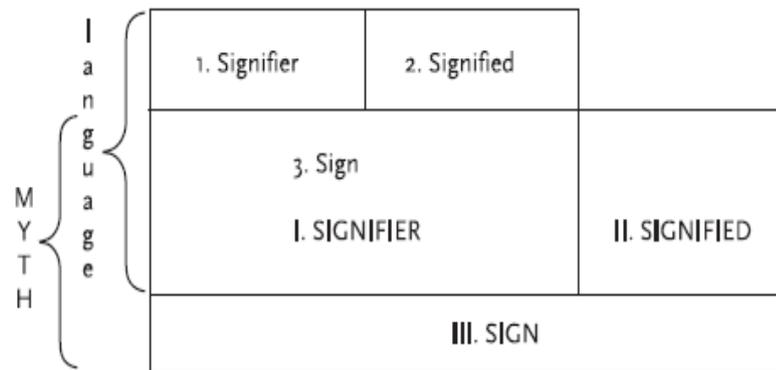
Peirce formulates a prototype of triadic model schema as follows:



Roland Barthes, concerning the sign system, reiterates Saussure’s view that semiology is comprised of three terms: those are ‘signifier’, ‘signified’, and ‘sign’ (Habib, 2005: 639). Specifically, the signifier is an acoustic (mental) image; the signified is a concept; and the sign a word and consists of the combination of signifier and signified. Barthes, in this semiological system, proposes two order significations, which are language level and myth level. Accordingly, an entire sign in the first system (language level), according to Barthes, becomes a mere signifier (only one component of the sign) in the second system (myth level).

Barthes (1972: 113) extensively describes a sign as a system which consist of (*E*) an expression or signifier in relation (*R*) to content or signified (*C*). Such kind of this system, according to Barthes, can be regarded as a primary sign system which then can turn into an element of a more comprehensive sign system (a secondary sign system). Specifically, it can be noticed that if the extension is one of content, the primary sign system ( $E_1 R_1 C_1$ ) becomes the expression of a secondary sign system – which in a simple pattern can be;  $E_2 = (E_1 R_1 C_1) R_2 C_2$ .

Consequently, to show metaphorically the specialization of the pattern, Barthes formulates a prototype of semiology Cal schema as follows;



The schema implicitly demonstrates that a primary sign system is denotative, while a secondary sign system is connotative. For that reason, the Barthes' model specifically is such kind of two order signification (Habib, 2005: 639). The denotation reflects the first order signification, which is the relation between signifier (expression) and signified (content) in term of the relationship of a sign toward the external reality (language range). In contrast, the connotation implies the second order signification, which describes interaction occurring when the sign deal with reader's feeling, emotions, or culture value (Meta language range).

On the issue of this second order signification, that of meta language range, Barthes (1972: 113) gives an illustration that is a sign primarily works through a myth. The myth, in this circumstance, is not defined by the object of its message, but by the way in which it utters this message. In the same way, the myth is equally ideological operation, which has a function to express and verify the various dominant values which are valid or being in effect at a certain period of time (Endaswara, 2013: 40). This impression then, in Wibowo's (2011: 18) perspective, proves that the myth categorically refer to the way how culture explains or understand several aspects of reality or natural phenomena.

### Method

Methods are very important in conducting the research because they consist of systematic steps to make it easier to reach the goals as it implied by Djajasudarma (1996: 9) that states:

*“Metode penelitian deskriptif adalah metode yang bertujuan membuat deskripsi; maksudnya membuat gambaran, lukisan secara sistematis, faktual dan akurat mengenai data, sifat-sifat serta hubungan fenomena-fenomena yang diteliti.”*

Descriptive method has the purpose of describing facts and characteristics of certain data systematically. The benefit of doing a descriptive analysis is that detailed and factual information can be identified and justified.

### Method and Technique of Data Collecting

In every way, there is a lot of research or basic models for the analysis of data on research results. The method used in this research is descriptive analysis. It describes the types of color meaning of the *go green* logo.

Similarly, Marvasti (2004: 7) states qualitative research describes and analyzes the quality of human experience. In addition, Ritche and Jane Lewis (2003: 3) say that qualitative gives directives in providing depth understanding of the social world of research participants through learning their social values, their experience and perspectives. Furthermore, Woods (2006: 2) says that qualitative focuses on natural setting, has interest in meaning, perspectives and understandings, and gives great consideration on process.

The first step is collecting the logo of *go green* as the data. Those logos are taken from the internet and after that the logo identified into the color meaning.

## Result and Discussion

### Data1.



### Analysis:



R: 000, G: 150, B: 075

There are two colors found in data 1. The first color is dark green which has code R: 000, G: 150, B: 075. Green is defined as a natural, health, and renewal. Some words associated with green: peace, restful, tranquil, soothing, cool, refreshing, traditional, stable, conservative, calm, spacious, and relaxing. The second color is white, means as purity and innocence. The dominant color in this logo is dark green.

### Data 2.



### Analysis:



R: 165, G: 205, B: 060



R: 000, G: 150, B: 075

There are three colors found in data 2. The first and second colors are light green and dark green. Light green has code R: 165, G: 205, B: 060 while dark green has code R: 000, G: 150, B: 075. Green is defined as a natural, health, and renewal. Some words associated with green: peace, restful, tranquil, soothing, cool, refreshing, traditional, stable, conservative, calm, spacious, and relaxing. The third color is white, means as purity and innocence. The dominant color in this logo is light green.

**Data 3****Analysis:**

R: 165, G: 205, B: 060



R: 000, G: 150, B: 075



R: 000, G: 000, B: 000

There are four colors found in data 3. The first and second colors are light green and dark green. Light green has code R: 165, G: 205, B: 060 while dark green has code R: 000, G: 150, B: 075. Green is defined as a natural, health, and renewal. Some words associated with green: peace, restful, tranquil, soothing, cool, refreshing, traditional, stable, conservative, calm, spacious, and relaxing. The third color is white, means as purity and innocence. The fourth color is black, means as death, mystery and fear. The dominant color in this logo is dark green.

**Conclusion**

This study conducted to figure out the color meaning which are used as the logo of *go green*. The findings indicate, the color which is used in all logo are commonly using white and green as their dominant color which is white symbolized as “purity”, and green symbolized as “peace”.

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# Risk Determinants on Foreign Exchange Banking Based on Endogenous Variable Using Probit Models

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## Abstract

**Purpose:** This study intends to conduct an empirical investigation to find the factors that determine risk on foreign exchange banks using endogenous variable in Indonesia.

**Design/methodology/approach:** The method used in this article is using probit model.

**Findings:** The findings show that the probability default risk of foreign exchange banks in Indonesia is influenced by credit quality and interest rate factors that influence the performance of foreign exchange banks. Bank is one of financial institution that has a vital role in the economy of the State, especially for countries that an economy is still depend on the presence of banks as a source of financing of economic activities. Foreign exchange bank in international payment traffic has an important role as a bank obtaining a letter of appointment from Bank Indonesia to conduct banking activities in foreign currency.

**Research limitations/implications:** This research uses secondary data from foreign exchange banking statistics for 76 months from January 2011 to April 2017 in Indonesia

**Practical implications:** In the context of regional banking industry competition, attention is paid to the potential and competitive strategy of the Foreign Exchange Bank. The performance of Foreign Exchange Bank requires structuring the strategy to be able to face and excel in regional industry competition. The greatest challenges arise from identifying factor probability default risk on foreign exchange banks based on endogenous variable using probit model.

**Originality/value:** This study lies in the issue of credit risk, especially default risk with the foreign exchange bank subject. This study can be said as an original study because it has never been done anywhere in the world.

**Keywords:** Default Risk, Probit Model, Foreign Exchange Banks

## Introduction

The role of banks in meeting the needs of business people and individuals is very important and makes banks very vulnerable to risk. In carrying out these business activities the bank faces various risks including credit risk. The global financial crisis that has been running since the late 1990s in Asia until 2010 has become the center of attention of stakeholders, including academics. In mid-1997 was the worst banking condition and provided valuable lessons for Indonesia. The costs used to save and restore the banking industry were so large that they

reached more than fifty percent of Indonesia's GDP at that time (Hadad *et al.*, 2003). Various studies were conducted to find a solution so that a similar crisis would not be repeated.

The economic impact caused by bank failures in risk management is a very important topic because most of the core activities of each bank are credit financing. Non-performing loans can affect the profits received by banks (Puspitasari, Setiadi, & Rizkiyanti, 2015). Strict competition in the banking industry requires banks, especially foreign exchange banks, to be able to compete in regional industry competition (Puspitasari, Setiadi, & Febrian, 2017). This study contributes to identifying risk determinants in foreign exchange banks, particularly credit risk.

### **Literature Review**

The risk of financial instability is divided into endogenous risks and exogenous risks (Hauben, Kakes, Schinasi, 2004). This statement was reinforced by Bank Indonesia (2007) who argued that endogenous risk is a source of financial instability. Endogenous risk is the risk that depends on the actions of components in the financial system, therefore including the risks that exist in the financial system. Hauben, Kakes and Schinasi (2004), Schinasi (2005) they stated that there are 3 types of endogenous risks in the financial system, based on specific banks, markets and infrastructure. Non Performing Loan (NPL), credit volume risk and bank size including risks that are specific to financial banks. Interest rates include risks that occur in the market and capital requirements including risks that exist in the infrastructure.

Credit risk or often referred to as default risk is related to the possibility that when it is due, the counterparty fails to fulfill its obligations to the bank. Risks can arise due to several things, including:

- 1) the possibility of loans provided by banks or bonds (bonds) purchased by banks are not paid;
- 2) non-fulfillment of obligations, in which the banks involved can meet with other parties, for example failure to fulfill obligations on derivative contracts;
- 3) settlement with exchange rates, interest rates and derivative products.

The impact of default risk is:

- 1) **increase reserves for loan losses** (Waemustafa & Sukri, 2015; Bennet, et.al, 2014; Ayeni & Oke, 2012; Gordy, et.al, 2000)
- 2) **profit reduction** for banking industry (Kithinji, 2010)
- 3) **bankruptcy** of individual banks (Dermine & Carvalho, 2005)
- 4) **leads to systemic risk** for financial system stability (Fiordelisi & Ibanez, 2011)

Based on previous studies, the result shows relationship between default risk and endogenous risk is as follows:

Table 1: Correlation Between Default Risk and Endogenous Risk

Researcher	Endogenous Risk				
	NPL	Bank Size	Credit Volume	Interest Rate	Capital Requirement
Puspitasari, Setiadi, Febrian (2017)					
Puspitasari, Setiadi, Rizkiyanti (2015)	+		+		+
Waemustafa & Sukri (2015)		+		+/-	+/-
Bennet, et.al (2014)	-	+/-	-	-	+/-
Ayeni & Oke (2012)	+	+	+		
Vasquez, et.al (2012)			+	+/-	
Puspitasari, Setiadi, Hasrantih (2012)	+	+			+/-
Fiordelisi & Ibanez (2011)	+	+/-		+	
Fadare (2011)	+		+	+	
Puspitasari, D.M (2011)	+		+	+	+
Kithinji (2010)	+		+		
Filippaki & Mamatzakis (2009)	+		+		+/-
Ahmad & Ariff (2007)	+				+
Altunbas, et.al (2007)	+		+	+	+
Dermine & Carvalho (2005)			+		
Altman, et.al (2003)		+/-	+		
Mingo (2000)	+	+/-	+		+
Altunbas (2000)	+	+		+	+/-
Gordy, et.al (2000)	+	+	+		-

Source: Summary of Previous Research Results

Endogenous risk in this research is represented by NPL, bank size, credit volume, interest rates and capital requirements.

### Method

This study uses descriptive verification which uses secondary data from foreign exchange banking statistics for 76 months from January 2011 to April 2017. This study using probit regression with independent variables is NPL, bank size, credit volume, interest rates, capital requirements. While the dependent variable is default risk.

The hypothesis proposed partially is as follows:

H1 : NPL influence default risk

H2 : Bank size influence default risk

H3 : Credit volume influence default risk

H4 : Interest rate influence default risk

H5 : Capital requirements affect default risk

The hypothesis proposed simultaneously is as follows

H6 : NPL, bank size, credit volume, interest rate, and capital requirement influence default risk simultaneously.

The simple probit regression equation for one variable is as follows:

$$I_i = \beta_1 + \beta_2 X_i$$

Assuming normality, the probability of  $I_i$  that is smaller or equal to  $I_i$  can be calculated based on the following normal CDF distribution:

$$P_i = P(Y_i = 1|X_i) = P(I_i^* \leq I_i) = P(Z_i \leq \beta_1 + \beta_2 X_i) = F(\beta_1 + \beta_2 X_i)$$

$P(Y_i = 1|X)$  is the probability of default risk event at a value  $X$  (variable independent) and  $Z_i$  is a standard normal variable that is  $Z_i \sim N(0, \sigma^2)$ .  $F$  is a standard normal CDF that can be written:

$$F(I_i) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{I_i} e^{-z^2/2} dz$$

$$= \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\beta_1 + \beta_2 X_i} e^{-z^2/2} dz$$

The theoretical framework is as follows:

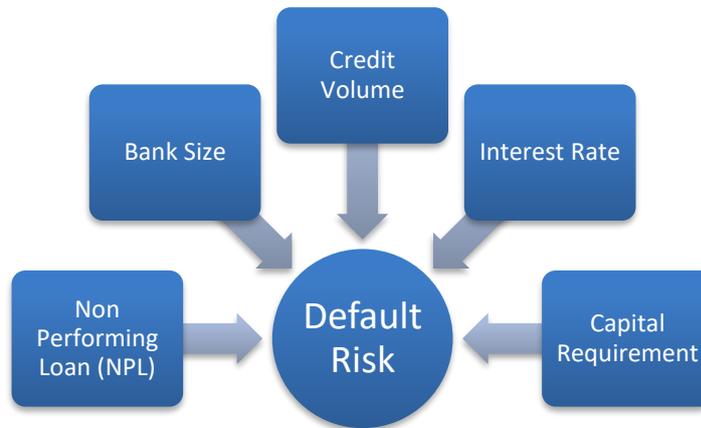


Figure 1: Theoretical Framework

Source: Summary of Relationships Between Variables from Previous Studies

### Findings

The partial probit regression test is presented in table 2 below:

Table 2: Probit Model Regression Test Results

Variable	Coefficient	Std. Error	z-Statistic	Prob.	Conclusion
C	-3.010078	7.243850	-0.370183	0.5292	
Capital Requirement	13.91729	8.479558	0.353120	0.1321	Accept Ho
Interest Rate	157.9719	71.1341	1.957712	0.0275	Refuse Ho
Non Performing Loan	-14.18087	35.87766	-0.302311	0.5682	Accept Ho
Credit Volume	-17.28501	10.79861	-0.446609	0.0082	Refuse Ho
Bank Size	-8.801713	27.35793	-0.237198	0.6166	Accept Ho

Source: Data Processing Results

From table 2, it can be seen that partial probit regression test that only interest rate and credit volume variables influence default risk using probit regression, where both probabilities are smaller than 5%, it means that  $H_0$  stated that interest rates and credit volume do not influence default risk that is rejected. While  $H_1$  is accepted which means that capital requirements and interest rates influence default risk. Variable capital requirement, *NPL*, credit volume and the

size of the bank does not significantly influence default risk because the probability is greater than 5%. The Probit Regression Model that is formed is as follows:

$$\text{Default risk} = -3.010078 + 13.91729 \text{ capital requirement} + 157.9719 \text{ interest rate} - 14.18087 \text{ NPL} - 17.28501 \text{ credit volume} - 8.801713 \text{ bank size}$$

Likelihood Ratio (LR) Statistic test use the following hypothesis:

$$H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$$

$H_1$  : not all  $\beta_i$  ( $i = 1, 2, 3, 4, 5$ ) equal to zero.

The results of processing data show as follows:

Table 3: Likelihood Ratio (LR) Statistic Test

	Score	Prob.
<i>Likelihood Ratio</i>	21.00465	0.000808

Source: Data Processing Results Using Eviews

Based on table 3, Likelihood Ratio (LR) statistic shows 21.00465 which is significant at the level of 5% with a probability 0.000808. Simultaneously, capital requirements, interest rates, NPLs, credit volume, and bank size, influence default risk.

McFadden R-squared test in table 4 shows that capital requirements, interest rates, NPL, credit volume, and bank size variables influence default risk 37,98%, others 62,02 % influenced by other variables not examined in this study.

Table 4: McFadden R-Squared Test

	Score
<i>McFadden R-squared</i>	0.379883

Source: Data Processing Results Using Eviews

The probit regression model to determine the default risk that is formed and fit with the following hypothesis:

$H_0$ : The probit regression model fit

$H_1$  : The probit regression model does not fit

Table 5: Goodness of Fit Test Result

	Score	Prob.
Hosmer-Lemeshow Statistic	1.9491	0.9825

Source: Data Processing Results Using Eviews

Based on table 5, Hosmer-Lemeshow statistic result shows 1,9491 with probability 0,9825. It means  $H_0$  accepted and it can be stated that the regression of the probit model has met the criteria of good fit.

Accuracy of Prediction probit regression presented on table 6. Observation of 34 foreign exchange banks with categorized 0 (no default risk occurs), 32 observed accurately predicted below the cut off value ( $P \leq 0,5$ ) ( $P \leq 0,5$ ) and 3 other observations missed above the cut off value ( $P > 0,5$ ). Observation of 34 foreign exchange banks with categorized 1 (default risk

occurs), 32 observed accurately predicted below the cut off value ( $P \leq 0,5$ ) and 2 other observations missed above the cut off value ( $P > 0,5$ ). In conclusion, 44 observations were examined as many as 34 observations including accurately predicted and as many as 10 remaining observations are predicted to be lost, so that the percentage accuracy of the prediction is  $0,8684 = 86,84\%$ . The results of data processing show test the accuracy of the prediction as follows:

Table 6: Accuracy of Prediction Result

<b>Success cut off: C = 0.5</b>			
	<b>Estimated Equation</b>		
	<b>Dep=0</b>	<b>Dep=1</b>	<b>Total</b>
P(Dep=1) $\leq$ C	32	7	39
P(Dep=1) $>$ C	3	2	5
Total	35	9	44
Correct	32	2	34
% Correct	95.52	22.22	86.84
% Incorrect	4.48	77.78	13.16
Total Gain*	-4.48	22.22	-1.32
Percent Gain**	NA	22.22	-11.11

Source: Data Processing Results Using Eviews

Based on partial probit regression test, interest rate and credit quality variables influence the default risk in foreign exchange banking. This is consistent with the results of preliminary research on table 1. Bolton and Jeanne examined using variable interest rates and credit volume indicating both variables influence default risk. It shows differences with Bolton & Jeanne research, both variables show positive significant influence whereas in this study, credit volume is negatively related to default risk. Bennet (2014), Vasqueza, Tabakb, Souto (2012), Fadare (2011), Puspitasari (2011), Altunbas (2007) shows the relationship between default risk and interest rates and credit volume.

In this study capital requirements, non performing loan, and bank size, do not influence default risk. Likelihood Ratio (LR) Statistic test states that capital requirements, interest rates, NPL, credit volume, and bank size influence default risk, simultaneously. McFadden R-squared test shows that capital requirements, interest rates, NPL variables, credit volume, and bank size, influence default risk 37.98%, others 62,02 % influenced by other variables not examined in this study. The low value of McFadden R-squared test is due to many factors that can influence default risk and this research only uses banking data. There are many institutions in the financial system.

Goodness of fit test states that the regression of the probit model has met the criteria of good fit. Based on goodness of fit test shows the percentage level of accuracy of the prediction regression model is 86,84%.

### Discussion and Conclusion

All variables (capital requirement, interest rate, NPL, credit volume, and bank size) fluctuated during the study period January 2011- April 2017. Probit regression method for default risk on foreign exchange banking, partially shows only interest rate and credit volume variables influence default risk with a negative correlation on credit volume and with a correlation on interest rates. Simultaneously, all variables influence default risk 37,98%. This study has meet goodness of fit test in the amount of 86,84%.

This study contributes to observers and researchers and develops this issue using different methodologies, variables, data, proxies. caused by the topic of this research is still rarely done in Indonesia although it is a problem in all countries in the world. Also, this study contributes to senior banks, financial services authorities, banking practitioners to monitor the possibility of default risks, especially interest rates and credit volume in the economy so that stability occurs in the financial system.

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# The Influence of Store Atmosphere on Repurchase Interest in Indonesia: Study on the Takigawa Cafe Meatbar in the Sky

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## Abstract

**Purpose:** The purpose of this study is to find out how consumers' buying interest in Takigawa cafe and to figure out the influence of store atmosphere in Takigawa cafe re-purchase interest.

**Design/methodology/approach:** The method used in this research is quantitative descriptive. The sample in this study is Takigawa cafe consumers, for sampling researcher using incidental sampling techniques, with 100 respondents and used multiple linear for technique analysis.

**Findings:** Based on the results of hypothesis testing simultaneously store atmosphere has a significant effect on consumers' repurchase interest in Takigawa. Partially sub-variables of *store layout* is not significant. This is evidenced by T count 0.658 smaller than T table 1,985. Based on the coefficient determination, store atmosphere influences the interest on repurchasing as much as 51.26% and the remaining 48.74% is not explained in this study.

**Research limitations/implications:** Store atmosphere in the Takigawa Cafe as a whole rated good in the eyes of consumers who obtained an average score total of 68.53%. This indicates that Takigawa Cafe has given the atmosphere of the store (store atmosphere) good in the eyes of consumers, but in a variable store atmosphere there are sub variables with values percentage average median smallest total score total of 63.17% in sub variable exterior.

**Practical implications:** The management of Takigawa Meatbar In The Sky should be able to maintain elements of the store atmosphere that has been considered a good practice by the consumer, such as maintaining a unique theme, do the friendly service, neat and nimble, and create unique themes and romance on special days for promotional activities. Then make improvements on elements of the store atmosphere that still lacks good implementation such as, installation of the marker Café that more clearly, adding entertainment means to enhance consumer convenience and serves food and drink with a unique presentation of the concepts so that consumers feel impressed. It is expected to have an impact on consumer interest in making repurchase and re-visits.

**Originality/value:** Use other data analysis methods, which can provide data with better accuracy, and if the results are found to be not significant, then the researchers need to conduct interviews with some respondents back previously selected at random. Increase the number of samples as well as expand the population into things that can be done in the research in the future.

**Keywords:** Store Atmosphere, Repurchase Interest, Takigawa Cafe, Multiple Regression, Indonesia

**Introduction**

In the current era of globalization, creativity and innovation are the main things that must be put forward, this condition creates great opportunities, but in addition opportunities can also make competition in all fields of business more stringent because companies with similar industries will always compete to get the same market. At this time the development of the creative economy in Bandung showed a significant increase. This has become a driving factor in competition in the business world, thus requiring business people to continually improve and innovate products (Valentine, 2014).

Bandung are known as a tourist destination that offers a variety of tourist entertainment options. Culinary tourism is a popular business in Bandung. Today there are many cafes and restaurants. Changes in lifestyle directly, make entrepreneurs have to find new ideas that are considered more modern and will be preferred (Valentine, 2014)

Today cafes and restaurants are easily found in the city of Bandung. The function of this restaurant is not just enjoying food and drinks. Price, quality, and service are no longer the main consideration for culinary connoisseurs, now the atmosphere is an important factor for a consumer in choosing a place to eat. Supporting facilities such as live music, spot selfies and free wifi has become a compulsory supporting facility that must be provided so that visitors feel comfortable (Ardiansyah, 2015). One of the unique cafes that utilizes the Bandung City view is Takigawa Meatbar In The Sky, which is located on Jl. Bukit Pakar Timur IV No. 8, Dago Pakar. According to Levy and Weitz (2012: 613) store atmosphere is a combination of store characteristics (such as architecture, layout, signs and displays, color, lighting, temperature, sound, and smell), which together make images in the customer's mind. Intention (intention) according to Soderlund and Ohman in Setyaningsih (2011: 36) is an attitude statement about how someone will behave in the future. Repurchase intention is a consumer commitment that is formed after the consumer purchases a product or service. This commitment arises because the positive impression of consumers is satisfied with the purchase, according to Hicks et al in Setyaningsih (2011: 36).

The perceived experience when consumers visit a cafe into consideration today's consumer in choosing the cozy Cafe, which will give you more value at current location or after leaving the location of the restaurant. So the store atmosphere becomes the main concern of the cafe or restaurant manager in satisfying its customers in order to win the competition.

Store atmosphere will create the experiences obtained from the consumer directly when a visit to a cafe. To create such experiences, for any industrial Cafe in order to organize there store atmosphere through a unique physical evidence, exciting, and fun so that it can become a driving factor for the formation of occurrence repurchase interest. Based on the explanation, the writer is interested in knowing whether store atmosphere is an important factor to influence consumers to repurchase. So, the author made a study entitled "the influence of store atmosphere on repurchase interest (study on the takigawa cafe meatbar in the sky bandung)".

**Literature Review**

In this section the author discusses about store atmosphere, repetitive buying interest and the relationship between store atmosphere and repeated buying interests.

***Store atmosphere***

Store atmosphere or design is an important thing that must be considered in building a retail business. The design created will create a comfortable atmosphere, making every customer who visits to shop feel at home in a shop. Utami (2012: 279) states that Store Atmosphere is the creation of an atmosphere that means the design of the environment through visual communication, lighting, color, music, and fragrance to design the emotional and perceptual responses of customers and to influence customers in buying goods. Meanwhile, according to

Levy and Weitz (2012: 490) states "Atmospherics refers to the design of an environment through visual communications, lighting, colors, music, and scent that stimulates customers perceptual and emotional responses and ultimately affect their purchase behavior."

It can be concluded that the atmosphere is defined as the physical character of the store that projects an image of the consumer. Based on the opinion of experts, it can be concluded that store atmosphere is a physical characteristic of the store. It plays an important role in building a business, which refers to the atmosphere of the store, from lighting, color, music and aroma, aiming to lure customers to visit and make it comfortable while in the store. to make a purchase.

**Buying decision**

According to Hasan (2013: 180) purchasing decisions are "Understanding consumers about the desires and needs of a product by assessing existing sources by setting purchase objectives and identifying alternatives so that decision makers to buy accompanied by behavior after making a purchase".

**Theoretical Framework and Hypothesis Development**

According to Levy and Weitz (2010:530) that Store Atmosphere is an environmental design through the design and visual communication, lighting, color, music and to stimulate the olfactory perception and emotion and can eventually affect customer behavior their spending. Store atmosphere aims to indicate the identity stores, as well as indirectly become consumers ' attention through the towing and that already exists in the store. Store atmosphere is one strategy that can be used as a means of promotion of a company in order to its marketing activities. In the implementation on the consumer the important elements of the store atmosphere should be applied as well as interior, exterior, general store, and interior layout display (Berman & 2010:508 Evans). Based on the above description, it is a good atmosphere in the store is able to affect the behavior of repurchase interest. From that explanation, the researcher is designing a research model as follows:

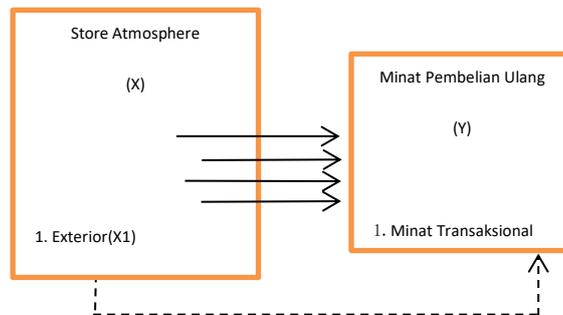


Figure 1: Theoretical Framework

**The research hypothesis as follows:**

- H1: There is a significant influence of exterior, interior, general store layout and interior display against the repurchase interest.
- H2: Partially exterior effect significantly to repurchase interest.
- H3: Partially general interior effect significantly to repurchase interest.
- H4: Partially store layout effect significantly to repurchase interest.
- H5: Partially interior display significant effect against the repurchase interest.

### Method

In this study the author uses descriptive and causal research type because, this research aims to analyze the relationships between variables in describing the results of research. According to Sugiyono (2014:89) a descriptive research is the research if the researcher does not make the comparison of variables against the other samples, and find that variable relationship with other variables.

In this study, the population are consumers Cafe Takigawa Meatbar In The Sky. In this study the procedures of sampling using a non probability sampling method. Due to the number of population in this study is not known with certainty, then the sample size is determined using the formula of Bernoulli (Kurniawan, 2014:84) as follows:

$$n = \left[ \frac{\left( \frac{Z_{\alpha}}{2} \right)^2 p \cdot q}{e^2} \right]$$
$$n = \left[ \frac{(1,96)^2 \times 0,5 \times 0,5}{(0,1)^2} \right] = 96,04$$

Obtained results  $n = 96.4$ , for easy sharing of questionnaire then the number of samples rounded upwards into 100 respondents.

### *The Testing Data Technique*

Test the validity of the processed by using IBM SPSS software 22 with a confidence level of 5% ( $\alpha = 0.05$ ). A questionnaire is said to be valid if the value of coefficient correlation product moment count greater than the value of coefficient correlation product moment table i.e. 0,361. That is,  $r$  is said to be valid if  $r > 0,361$  (Sugiyono, 2008:178).

In measuring the reliability of a research instrument, the most commonly used technique is the method Alpha Cronbach. A research instrument is said to have a reasonably good level of reliability in the Alpha Cronbach coefficient of at least 0.70.

### *Methods of Data Analysis*

Data analysis techniques used in this research is the analysis of multiple regression. The regression equations in this research is to find out how big the influence of independent variables namely Exterior (X 1), General Interior (X 2), Store Layout (X 3), Interior Display (X 4) towards the dependent variables: repurchase interest (Y) on the Takigawa Meatbar cafe. Hypothesis testing is done based on Simultaneous Hypothesis Testing (test F) and hypothesis testing Partially (T-test).

### Findings

Multiple linear regression equation as follows:

$$Y = 0,593 + 0,294 X1 + 0,366 X2 + 0,065 X3 + 0,192 X4$$

- Constants of 0.593 stated that if interior, exterior, general store layout and interior display value 0 (zero) and there is no change, then interest will be worth repeated purchases of 0.593.
- Value for X1 exterior features, has regression coefficient 0.294, that meaning if exterior increased, while general interior, store layout and interior display constant, then the predicted interest in the purchase will be increased of 0.294 units.
- The value for X2 general interior, has regression coefficients 0.366, that meaning if the general interior increases, while the exterior, store layout and interior display constant, then interest in the re purchase will be increased by 0.366 units.
- The value of X 3 store layout, having a coefficient of regression 0.065, meaning that if the store layout is increasing, while the exterior and interior, general interior display constant, then interest in the re purchases will increased by 0.065 units.

e. The value of X 4 interior display, have a coefficient of regression 0.192, meaning if the interior display is increasing, while the exterior and interior, general interior display constant, then interest in the re purchases will increased by by 0.192 units.

#### ***Hypothesis Test (Test F)***

The value of F Count = 25.018, the criteria say that the  $H_a$  is accepted if F count (25,018 > Ftable (2,467) and the value of the Sig (0.000) < 0.05. This means the store atmosphere that consists of exterior, interior, general store layout, interior and display simultaneously positive and have significant effect against the buying decision process.

#### ***Hypothesis Test (Test T)***

Partially sub variable store layout has no positive effect and not significant. This is evidenced from a significant T count value smaller than 0.658 T table 1.985. However, other variables such as the sub's exterior, general interior, interior display effect positively and significantly to the buying decision process.

#### ***Coefficient Of Determination***

The coefficient of determination function to know the magnitude of the role or influence of free variables against variable depends. Determination of the coefficient is essentially the magnitude measures the percentage of the actual influence of all the variables in the regression model independent against the dependent variable. The magnitude of the value of the coefficient of determination in the form of a percentage, indicating the percentage of the variation in the dependent variable value which can be explained by the regression model. The magnitude of R square ranges from 0-1 which means that the smaller the magnitude of R is square, then the relationship of these two variables is getting weak. Conversely, if R square 1, then getting closer the second variable relationship getting stronger. Based on the results of the analysis of the determination coefficient, obtained as a result of the influence of free variables that store atmosphere against the variable of interest is the purchase of 51.26% while the rest 48.74% explained by other variables that are not examined in this study.

#### ***Summary Based On The Results Of Research***

Store atmosphere in the Takigawa Cafe as a whole rated good in the eyes of consumers who obtained an average score total of 68.53%. This indicates that Takigawa Cafe has given the atmosphere of the store (store atmosphere) good in the eyes of consumers, but in a variable store atmosphere there are sub variables with values percentage average median smallest total score total of 63.17% in sub variable exterior. This is due to the variable sub exterior has a deficiency in item statement name sign, but whilst the smallest value that was provided to the consumer on that variable was still in the good category.

The interest of the purchase in the Takigawa Cafe as a whole is judged to be good enough in the eyes of consumers. The values obtained in the average score a total of 64.9%. This shows that the interest on the purchase of products offered Takigawa Meatbar In The Sky and store atmosphere given Takigawa Meatbar In The Sky on the consumer is in compliance with the wishes of the consumer.

Based on the results of the test F simultaneously store atmosphere effect significantly against the interest of the purchase. It is based on the hypothesis test results views simultaneously (F) retrieved store atmosphere that consists of exterior, interior, general store layout, interior and display simultaneously effect significantly to repurchase interest of consumer om Takigawa Meatbar In The Sky. The magnitude of the influence of store atmosphere simultaneously against re-purchase interest seen from the calculation of the coefficient of determination of 51.26% and the rest of 48.74% is affected by other factors not examined in this study.

The T-test based on partially includes exterior, interior, general store layout, and display interiors from the four sub variables which do not affect significantly the is store layout, this is because the store layout has value t calculate 0.658 smaller than t table 1.985. Exterior, interior, and general interior display effect significantly to repurchase interest in Cafe Takigawa Meatbar In The Sky.

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# Factors Inhibiting Public Participation in corruption Prevention through E-Government Application in Indonesia

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## **Abstract**

**Purpose:** This study aims to examine the factors that hinder the level of public participation in e-government in Indonesia

**Design/methodology/approach:** The method used is the study of literature

**Findings:** Public participation in the implementation of e-government is still low, because lack of public awareness of government data and information has not significantly accounted for its contribution to fighting corruption.

**Research limitations/implications:** this research is only a literature study, based on existing studies

**Practical implications:** this research is expected to be useful to improve the e-government system, so that the public can increase participation in government which will have an impact on reducing the level of corruption

**Originality/value:** this research combines several research results and can deduce factors that hinder public participation in the implementation of e-government

**Keywords:** Indonesian E-Government, Public Participation, Corruption

## **Introduction**

Corruption is a problem that is very detrimental to the people of Indonesia. Unfortunately the government has not succeeded in overcoming the problem. Based on research conducted by Transparency International, the corruption perception index in Indonesia is currently ranked 96th out of 180 countries. This condition is also the same as the previous year. The corruption perception index shows the number 37. Transparency International's corruption perception index uses a scale of 0-100. The value 0 means the most corrupt, while the value of 100 means the cleanest. The analysis results indicate that there is no development at all to reduce the level of corruption (detikNews, 2018).

The Corruption Eradication Commission (Komisi Pemberantasan Korupsi, KPK) is targeting that by 2019, Indonesia's Corruption Perception Index will increase compared to the previous year. According to Laode M Syarif, Deputy Chairperson of the KPK, one of the efforts to encourage the improvement of the corruption perception index is by issuing a presidential regulation (Perpres) on National Strategy Prevention and Eradication of Corruption. There are three main focuses in this Perpres namely state finance, licensing, and law enforcement and bureaucratic reform. State finances include state revenues and expenditures, starting from

planning and implementation. In the case of licensing, it must be done transparently (Kompas.com, 2018).

Another effort taken to prevent corruption in government is by implementing e-government. Alexander Marwata, Deputy Chair of the Corruption Eradication Commission, stated that the KPK encourages the implementation of e-government to improve the quality of public services, and prevent corrupt practices. E-government can accelerate work and be able to provide transparent information and accountability. (Republika.co.id). The implementation of e-government will not be effective in preventing corruption without public participation in the form of supervision of government activities. Several facilities have been provided to enable interaction between the government and the community, such as the People's Online Complaint Aspiration Service (LAPOR) initiated by the Presidential Staff Office, the Clue application located in Jakarta Smart City, a command-center owned by the Surabaya City Government. This application has provided an opportunity for the public to actively participate in the development and improvement of the quality of public services. The community is expected to play an active role in reporting violations or frauds (Soegiono, 2018). Unfortunately, the level of participation of the Indonesian people as measured by using e participation index ranks 92 of 193 countries in the world.

Based on the above description, this study aims to examine the factors that hinder the level of public participation in e-government in Indonesia. The method used is the study of literature.

## **Literature Review**

### *Definition of E Government*

E Government is the use of computer information technology by the government, society, political institutions to invite the public to participate in providing feedback so that the community can play an active role in the government process in various government institutions. E government aims to improve administrative efficiency and reduce corruption (Bhatnagar Subhash, 2004).

### *Forms of E Government Applications:*

Various forms of application of e-government use are:

- e-budgeting,

e-budgeting is the application of computer information technology for budget functions, procedures, or services throughout the budget cycle (planning, programming, budgeting, allocation, control, and evaluation of financial resources).

- e-procurement,

e procurement is a procurement system. This system is able to control the procurement of goods. This system helps financial officers match purchases with purchase orders, receipts, and job cards. The e-procurement system also manages tenders through the website.

- e-audit,

e-udit, is a computer-assisted audit that uses electronic records to complete all or part of the audit. E audit can be done if the institution uses a computer to record its activities.

- e-catalog,

An electronic catalog in online publications in the form of graphic and graphic interfaces, generally in the form of html pages where the products and services offered by the company are displayed.

- e-payment,  
e payment is an electronic payment system by paying goods or services electronically, rather than using cash or checks.

- e-participation  
e-participation is a term that refers to participation supported by ICT in the processes involved in government and public. "This process is related to administration, service, decision making and policy making.

#### *Purpose of Application of E Government*

The purpose of implementing e government (Brown, 2013):

- Availability of government information through the internet, such as regulations, schedule of public hearings, summary of problems, budget and realization, government performance reports.
- Creating two-way communication between the government and citizens, businesses or other government institutions.
- Make it easy for people to make transactions, such as for payment of taxes, application for grant services, processing of permits.
- Enabling the transition of citizens from passive information access to active citizen participation

#### *Classification of E-Government*

E-Government is classified into four levels, namely:

- The first level is the government publishes information through the website
- The second level is the interaction between the community and the representative office via email
- The third level is that the user community can conduct transactions with reciprocal government offices
- The last level is the interaction in all government offices, where the community can conduct transactions with all government offices that have used a shared data base

#### *Public participation through e government*

One of the goals of government is to prevent corruption by creating two-way communication between the government and citizens. Citizens need to be involved in public policy and decision-making processes by using technology of e-participation and good governance practices to help the government successfully implement policies, programs and projects related to development goals in the economic, social and environmental fields. Research on e government conducted by the United Nation shows that the level of participation of the Indonesian people as measured by using the e participation index is still low, which is ranked 92 of 193 countries in the world.

#### *E - participation Index (EPI)*

With the development of e-participation as part of e-government, it is expected that there will be an increase in citizens' access to information and public services, increased participation in public decision-making that has an impact on the welfare of the community, both in general and especially to individuals. The United Nation has developed a measure to measure the level of community participation called E-participation Index (EPI). The EPI includes availability:

- E-information: Activates participation by providing public information to citizens and access to information without or on request
- E-consultation: Involving citizens in contributions and considerations regarding public policies and services
- E-decision-making: Empowering citizens through co-design facilities to provide opportunities for communities to determine policy and co-production options to improve existing policy components.

EPI is a comparative and qualitative assessment of the mechanisms implemented by governments in each country. Although this metric is not an absolute thing, it is expected that with this EPI, performance can be measured the performance of each country. EPI is calculated as follows:

$$\text{EPI} = (\text{lowest participation rate of a country}) / (\text{total value})$$

The participation value is calculated based on the answers to the questionnaire which includes questions about information provided by the government for citizens, online opinion polls, and online discussion forums.

#### *Examples of application of E participation*

Some examples of the application of e participation in several countries:

##### Korea

Korea has provided an application called Online Citizen Participation Port and Administrative Information Disclosure System. This application has been made since 2006. Online Citizen Participation Portal provides services where citizens can submit complaints, policy proposals, engage in policy discussions, and form online communities integrated with all ministries and institutions. The Administrative Information Disclosure System is an integrated service where citizens can view a list of government documents and request information needed online (Shim and Eom, 2008)

##### Republic of Armenia

Research conducted by Filatova, et al (2017) shows that web sites in Armenia only fulfill two characteristics of EPI namely e-information and e-consultation.

Citizens can only influence government decision-making through an internal forum. Interestingly, websites sometimes have information available about public participation regarding ministries sponsored by a particular institution. However, there is no mechanism for citizens to be able to interact with the government.

##### Russian Federation

The Russian website has a complete structure. There is information about ministries, documents and public relations. The Russian Federation's government website meets the standards of e-participation in decision making, which has the characteristics of information about events, public participation using e-voting or technology referendum. But users can only engage with communication services e-mail. The website has also been integrated with social media Filatova, et al (2017).

## **Findings**

### *E Participation in Indonesia*

The government together with the coalition of civil society has launched an open government program through Open Government Indonesia in 2017. The program is expected to be implemented in Ministries, Institutions and Local Governments. The aim of this program is to realize a more open, participatory and accountable government. This Open Government program is an institutionalization of public participation that is arranged in a participatory manner, to capture public aspirations through partnership between the government and the public. It is hoped that the government will get input from the public, so that the government-issued policies are truly needed by the public (GeoTimes, 2017).

Based on Putra's research (2017), in Boyolali district, the Investment and One-Stop Services (Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu, DPMPTSP) have implemented public service innovations in the form of online licensing. In its application, DPMPTSP has provided very adequate facilities so that people can easily use the facility. However, the level of community participation is still very low. The factors that influence the low participation of the community in using the online system are the low level of community knowledge due to the low level of socialization about the online system, the ability of the community to use supporting infrastructure that is not optimal, the inadequate quality of internet networks in some areas, low online services and often there is a conflict between people who want change and a static society.

Research conducted by Aprianti (2016), in the Sambutan sub-district, Samarinda, e-government implementation has been carried out and there has been a direct socialization of the implementation of e-government to community leaders and is expected to be communicated to the wider community, but based on direct interviews, some communities still not familiar with the implementation of e-government in the Sambutan sub-district office. Community knowledge about e government is still very limited. In addition, the website is still difficult to access and there are still errors and limitations. The interaction between the sub-district government and the community which is related to the disclosure of the majority of service information is still offline.

The results of Abadi's (2014) research on e-government in Sidoarjo Regency show some obstacles in terms of community participation. This is because the on-line network is often damaged, there is a transfer of position to staff who have knowledge about e government and the slow response to requests and information delivery to the public.

## **Discussion and Conclusion**

Corruption is a very detrimental thing for a country. To prevent this, the Indonesian government has developed e-government applications. With the development of the application, public can help participate in providing feedback to the government. Unfortunately, public participation is very low. This is due to the lack of public awareness of government data and information has not significantly accounted for its contribution to fighting corruption. Low public participation is caused by:

- the low level of socialization about e government
- the low level of public knowledge
- the website is still difficult to access and there are still errors and limited information provided. The interaction between the sub-district government and the community related to service information disclosure is still largely offline.

Because there are still many weaknesses in public participation, the government should reduce the existing weaknesses. With the improvement in the e government system, it is hoped that public participation can be increased, public can help participate in providing feedback to the government, so as to reduce the level of corruption in Indonesia.

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# The Effect of Self-Efficacy, Creativity, and Motivation on Entrepreneurship Interest in FBM Students of Widyatama University, Indonesia

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## **Abstract**

This study aims to analyze the effect of self-efficacy, creativity, and motivation on entrepreneurial interest. The type of research method used is an explanatory survey. Sample withdrawal technique using simple random sampling technique. The number of questionnaires that can be processed is 256 respondents from 260 questionnaires distributed. The statistical data analysis used is the validity, reliability, correlation coefficient, and determination coefficient. The results of data processing between self-efficacy, creativity, and motivation variables on entrepreneurial interest in the Main Business and Management Faculty students showed a correlation coefficient of 0.737 which means that self-efficacy, creativity, and motivation have a very strong relationship with significant entrepreneurial interests. The determination coefficient value is obtained at 0.543 which means that the magnitude of the contribution of self-efficacy, creativity and motivation to the interest in entrepreneurship is 54.3%, the remaining 45.7% is influenced by other variables not examined in this study. Partial testing shows that there is a strong relationship between self-efficacy and motivation with a significant interest in entrepreneurship with a positive relationship. Then there is a sufficient relationship between creativity and entrepreneurial interest significantly with a positive relationship. Limitations in this study only include some internal factors and do not include external factors that influence entrepreneurial interest. The results of this study are expected to provide input in determining entrepreneurial material to increase interest in entrepreneurship for students.

**Keywords:** Self-Efficacy, Creativity, Motivation, Entrepreneurial Interest, FBM Student

## **Introduction**

Unemployment is a problem that must immediately be addressed to reduce the poverty level of a country. The current unemployment is not only unemployment caused by the lack of a person's education but also unemployment increases due to a large number of university graduates who are not offset by available employment opportunities. For this reason, there are currently many universities offering study programs by conducting entrepreneurship education.

Through the implementation of entrepreneurship education, it is hoped that it can change the mindset of students so that after graduation they are not dependent on finding a job but able to create jobs for the wider community. According to Rumawouw (2010), that the presence of entrepreneurship can help improve a country's economic growth by maximizing entrepreneurial potential, it will strengthen the economy, because in the entrepreneurial process it can create added value and development in various aspects.

FBM Widayatama University is one of the colleges that offers an entrepreneurial concentration in its curriculum in each Management Study Program S1 and D3. The curriculum changes that are made are in line with one of its missions, namely to organize education programs in the fields of Management and Business sciences that are academically qualified and professional or vocational with quality and personality and entrepreneurial spirit. Referring to this mission, the FBM provides entrepreneurship lectures for a minimum of two semesters for D3 Management study program and four semesters for S1 Management study programs. This is done with the aim of fostering students' interest to be entrepreneurial.

Currently, students who take entrepreneurial concentration are still small compared to those who take HRM concentrations for example. This condition is caused by the assumption that entrepreneurship is only a trader, so it is less prestigious than working for a large company. Therefore, the study program must be able to change the mindset of students to think of being entrepreneurs. If students are able to take risks for entrepreneurship with the ability that has been learned, then the problem of unemployment can be minimized. According to Wulandari (2013), the interest in entrepreneurship is the desire, interest, and willingness to work hard or be strong-willed to try optimally in meeting the needs of his life without being afraid of the risks that occur, and willing to learn from the failure of his business.

Furthermore, according to Aritonang (2008), someone with an interest in a high field will show high achievement in the field. So that when interest is already there, then someone will try to find a solution to the problem at hand. A person's interest in entrepreneurship can be measured by looking at the structure of the formation of interest in behavior, namely the cognitive, affective, and conative components (Sumarwan, 2003). A person's interest in entrepreneurship is influenced by intrinsic and extrinsic factors. Intrinsic factors are factors that arise because of the influence of the individual itself, while extrinsic is a factor that influences a person because of external stimuli such as entrepreneurial learning.

The process of learning directly or indirectly will develop self-efficacy in him. Self-efficacy is a person's trust in his ability to complete work. High self-efficacy will help a person to make decisions, directional thinking, strong self-confidence and be prepared to face all risks. Therefore, self-efficacy is an important factor in influencing entrepreneurial interest (Indarti, 2008). Besides self-efficacy, according to Alma (2011), the main capital of entrepreneurship is creativity, tenacity and an unyielding spirit. Creative entrepreneurs can turn challenges into opportunities. A successful entrepreneur has a strong motivation, so as to encourage their actions. They know well the motivations and maintain the motivation in every action (Rosmiati, et al, 2015).

The three factors above are needed in developing the entrepreneurial interest of students. Students are qualified resources because they are equipped with entrepreneurship education. With effective entrepreneurial education, it is expected to be able to foster entrepreneurial interest in students so as to create employment opportunities for the wider community. Therefore the purpose of this study is to examine the effect of self-efficacy, creativity, and motivation on entrepreneurial interest in students of management study programs at the Faculty of Business and Management.

## Literature Review

Entrepreneurship is one of the supporters that determines the economic backwardness because the entrepreneurial field has the freedom to work and be independent. If someone has the will and desire and is ready for entrepreneurship, it means that someone is able to create their own jobs, and does not need to rely on other people or other companies to get a job. Entrepreneurs are defined as someone who runs entrepreneurial activities, or someone who starts and operates a business (Daryanto, 2012). While according to Zimmerer (2008) defines an entrepreneur is a person who creates a new business, by facing risks and uncertainties, which aims to achieve profit and growth through identifying opportunities through a combination of resources needed to benefit.

In entrepreneurship must have a high commitment in running its business, according to Suryana (2006) there are several characteristics of entrepreneurship, namely:

- a. Confident and optimistic
- b. Task-oriented and results
- c. Dare to take risks and have challenged
- d. Leadership
- e. Originality
- f. Future-oriented

Through entrepreneurship education is expected to be able to foster entrepreneurial characteristics. According to Lestari and Wijaya (2012) that entrepreneurship education not only provides a theoretical foundation for the concept of entrepreneurship but shapes the attitude, behavior, and mindset of an entrepreneur. Thus the goal of entrepreneurial education is to foster student interest in entrepreneurship.

### 1. Entrepreneurial Interest

Entrepreneurial interest is the desire, interest, and willingness to work hard or be strong-willed to strive optimally in meeting their needs without feeling afraid of the risks that will occur, and strong-willed to learn from the failure of their business (Wulandari, 2013).

Someone's entrepreneurial interest in Sumarwan (2003) can be measured by looking at the structure of the formation of interest in behavior, namely:

- a. The cognitive component, which is formed from the knowledge and information received which is then processed produces a decision to act
- b. Affective component, which is related to the subjective emotional social problem of an object in general, this component is equated with the feeling of an object
- c. The conative component shows how the behavior or tendency to behave in a person is related to the object of the attitude he faces.

There are two factors that influence interest. According to Darpujiyanto (2010), these two factors are:

- a. Intrinsic factors, namely factors that arise due to the influence of the individual itself
- b. Extrinsic factors, namely factors that affect individuals because of external stimuli

### 2. Self-efficacy

A person is encouraged to take action targeted at a stimulus that is related to individual needs and influences attitudes and behavior to act. Attitudes in receiving a stimulus vary in each person. This depends on the experience and way of thinking on the object's attitude that is expressed into cognitive, affective and behavioral processes that can further influence personality characteristics to behave. Between the attitudes and behavior of self-efficacy or

self-confidence in the abilities possessed can lead to one's success. Self-efficacy is a person's trust or ability to complete work (Indarti, 2008)

According to Bandura (2003), Self-efficacy consists of several dimensions that are magnitude (level of difficulty) leading to the level of difficulty of the task, strength leads to individual abilities, generality related to individual behavior and beliefs. Self-efficacy of one's career can be an important factor in determining whether an entrepreneurial interest in someone has been formed at an early stage in someone starting his career. In entrepreneurship there will be many tasks and jobs that must be completed, self-efficacy plays a role in giving confidence in the individual's ability to complete their tasks and work (Indarti, 2008) Self-efficacy can increase a person's confidence to get through the most difficult situations that are uncertain in entrepreneurship so as to achieve achievement in entrepreneurship.

### **3. Creativity**

An entrepreneur is required to be able to complete tasks and challenges in a variety of ways. Therefore, creative steps are needed to solve problems faced in entrepreneurship. According to Munandar (2012), creativity is the result of interaction between individuals and their environment. Often people interpret creativity as extraordinary special talents. A creative lifestyle can be seen from the way a person perceives the world, uses all of his abilities and develops sensitivity to environmental problems.

According to Guilford (in Munandar, 2012) that creative people have more divergent ways of thinking which use many alternative answers in solving their problems. Creativity from the entrepreneurial spirit will produce new products, new ways, and new opportunities. The central role in entrepreneurship is a strong ability to create something new.

### **4. Motivation**

Motivation is in someone. People who have high motivation will try to improve their ability to achieve. A person's motivation in entrepreneurship varies, depending on the goals to be achieved. According to Yunal and Indriyani (2013) that entrepreneurial motivation is a driving force in oneself that gives rise to the creation of an activity by looking at the opportunities that exist around acting bravely in taking risks, doing activities that are innovative and profit oriented. Meanwhile, according to Suryabrata in Djaali (2012) motivation is a statement contained in a person to do certain activities in order to achieve a goal.

According to Dimiyati and Mudjiono (2013), there are two types of motivation, namely:

- a. Intrinsic motivation, which is an individual's inner drive that causes the individual concerned to participate in an activity. This encouragement is innate from birth so it cannot be learned. Factors that influence it can come from (1) needs both psychologically and biologically, (2) expectations of success that are self-satisfaction, (3) interest is a sense of preference and race of desire on a thing without anyone telling
- b. Extrinsic motivation, namely encouragement from outside the individual that causes individuals to participate in activities. Factors that influence it are (1) encouragement from the family, (2) the environment in which he lives, (3) rewards so that the person wants to do something.

Entrepreneurial motivation is not brought from birth, but a process that is learned, trained, improved and developed. Entrepreneurial motivation is a situation that arises in a person to take action or achieve goals in the field of entrepreneurship. According to Saiman (2009), there are four people's motivations for entrepreneurship, namely:

- a. Profit can determine how much profit is desired and what must be paid to other parties or employees

- b. Freedom, free in managing time, free from supervisors, free from pressing rules, and free from organizational culture
- c. Personal dreams, free to achieve the expected standard of living, apart from repeated work routines, because they must follow the vision and mission
- d. Independence, having a proud race because it can be independent in everything, such as capital, independent in management or management, independent in supervision and being a manager of itself

Motivation is a fundamental psychological process and is one element that can explain a person's behavior. Motivation is one of the determining factors in achieving goals. Motives arise because of the need. Needs are seen as a lack of something and this requires the immediate meeting to get a balance. Maslow's theory is a theory known to understand human needs. Abraham Maslow's hierarchy of needs consists of (1) physical / basic need needs, namely physical needs in the form of food, drinks, clothing and home, (2) the need for safety / safety needs, namely the need for safe in family and community life with the fulfillment of aspects protection through business success, (3) social needs / social need, gaining flexibility and greater opportunities to make social contacts in building friendships and business relations, (4) need for self-recognition / self-esteem, obtaining community recognition for their useful work for the benefit of many people.

### **Theoretical Framework and Hypothesis Development**

Entrepreneurship is one of the factors that can support a country's economy because it can open wider jobs. Entrepreneurship is a person who creates a new business, by facing risks and uncertainties, which aims to achieve profit and growth through identifying opportunities through a combination of resources needed to benefit (Zimmerer, 2008). An entrepreneur must have strong characteristics in entrepreneurship which can be indicated by the interest in entrepreneurship. Interest in entrepreneurship can be measured by looking at the structure of the formation of interest in behavior, namely the cognitive, affective, and conative components (Sumarwan, 2003). The factors that influence interest in entrepreneurship are intrinsic and extrinsic factors (Darpujiyanto, 2010). There are several intrinsic factors that influence entrepreneurial interest, namely self-efficacy, creativity, and motivation. Self-efficacy is a person's trust or ability to complete work. In entrepreneurship there will be many tasks and work that must be completed, self-efficacy plays a role in providing confidence in the ability of individuals to complete their tasks and work (Indarti, 2008). The results of the research by Hapsah and Savira (2015), Ananta, et al (2014), Maftuhah and Suratman (2015), and Wulandari (2013) show that self-efficacy has a positive and strong relationship with the interest in entrepreneurship. Besides self-efficacy, creativity is an aspect that must be possessed by an entrepreneur. Creativity is the result of interaction between individuals and their environment. (Munandar, 2012). A creative lifestyle can be seen from the way a person perceives the world, uses all of his abilities and develops sensitivity to environmental problems. The results of the research by Hapsah and Savira (2015), Ananta, et al (2014) and Hasan (2013) that creativity has a positive relationship with the interest in entrepreneurship. The higher the creativity of a person, the higher the interest in entrepreneurship. Hadiyati (2011) found that creativity affects entrepreneurship. Furthermore, motivation can be a driving force for individuals to become entrepreneurs. Entrepreneurial motivation is drive in oneself that gives rise to the passion for the creation of an activity by seeing the opportunities that exist around acting bravely in taking risks (Yunal and Indriyani, 2013). The results of the Pratama et al (2017) study stated that internal and external motivation had a positive effect on entrepreneurial interest. Likewise with the study of Saputri et al (2016) which states that motivation has a positive relationship with

an interest in entrepreneurship. Based on the above description, the following hypothesis can be drawn:

H1: There is an influence between self-efficacy, creativity, and motivation on entrepreneurial interest

### **Method**

This research is an explanatory type of research because it aims to examine the characteristics of variables and relationships between existing variables. The population in this study were students of the Faculty of Business and Management at Widyatama University who were taking entrepreneurship courses II as many as 711 students. Determination of the number of samples using Slovin method so that the number of samples taken is 260 students. The sampling technique used is simple random sampling with a measuring instrument used in the form of a questionnaire distributed to respondents. The research instrument uses a Likert scale on each variable dimension. Questionnaires distributed have been tested for validity and reliability. An item is declared valid if it has a probability value of less than 0.05, while an item is declared reliable if it has a Cronbach Alpha value above 0.6 (Santoso, 2002). Data analysis uses multiple correlation analysis to determine the relationship between the four variables.

### **Findings**

Based on the questionnaire distributed to respondents as many as 260, indicating that the questionnaire that can be processed is 256 questionnaires while 4 questionnaires cannot be processed because it is incomplete in filling out. To analyze the effect of self-efficacy, creativity, and motivation on entrepreneurial interest using correlation test and coefficient of determination. Before testing the correlation, the questionnaire distributed was tested for validity and reliability first. The test results show that the item self-efficacy statement consisting of six statement items shows a probability value smaller than 0.05 with a Cronbach Alpha value of 0.759 so that the self-efficacy statement is declared valid and reliable. Then the statement of creativity which consists of five statement items shows the probability value is smaller than 0.05 with the Cronbach Alpha value of 0.834 so that the statement of creativity is declared valid and reliable. Furthermore, the motivation statement which consists of eight statement items shows the probability value is smaller than 0.05 with the Cronbach Alpha value of 0.819 so that the motivational statement is declared valid and reliable. Likewise, the statement of interest in entrepreneurship which consists of six statements shows the probability value is smaller than 0.05 with the Cronbach Alpha value of 0.803 so that the statement of entrepreneurial interest is declared valid and reliable.

Based on the results of data processing between the variables of self-efficacy, creativity, and motivation towards entrepreneurial interest in the Main Business and Management Faculty students showed a correlation coefficient of 0.737 which means that self-efficacy, creativity, and motivation have a very strong relationship with the interest in entrepreneurship significant. The determination coefficient value is obtained at 0.543 which means that the magnitude of the contribution of self-efficacy, creativity and motivation to the interest in entrepreneurship is 54.3%, the remaining 45.7% is influenced by other variables not examined in this study. The results of this study are in line with the research of Hapsah and Savira (2015) that self-efficacy, creativity, and motivation have a relationship with entrepreneurial interest.

The partial test results indicate that the variable self-efficacy with interest in entrepreneurship has a correlation coefficient of 0.714 with a significance value of 0.000. This means that self-efficacy has a significant relationship with an interest in entrepreneurship. The results of this study are in accordance with the research of Hapsah and Savira (2015), Ananta, et al (2014), Maftuhah and Suratman (2015), and Wulandari (2013) that self-efficacy has a positive and strong relationship with the interest in entrepreneurship. If someone is sure of his ability to

complete various tasks, it will encourage someone's interest to start a business immediately. Individuals with high self-efficacy show a desire to complete their tasks, have confidence in their abilities, focus on what they do and are able to face risks (Indarti, 2008).

Then the results of testing the variable creativity with interest in entrepreneurship have a correlation coefficient of 0.395 with a significance of 0.03. This means that creativity has a sufficient relationship with the interest in entrepreneurship significantly. The results of this study are in accordance with the research of Hapsah and Savira (2015), Ananta, et al (2014) and Hasan (2013) that self-efficacy has a positive relationship with the interest in entrepreneurship. The higher the creativity of a person, the higher the interest in entrepreneurship. Hadiyati (2011) found that creativity affects entrepreneurship. So the higher the level of individual creativity will drive the entrepreneurial process. The results of the study found that creativity is more influential when individuals have done entrepreneurship because tasks in entrepreneurship are so diverse that they require creative problem-solving steps. Creativity in entrepreneurship can be demonstrated through innovation made in entrepreneurship.

Furthermore, the results of testing the variable motivation with interest in entrepreneurship have a correlation coefficient of 0.657 with a significance of 0.00. This means that motivation has a strong relationship with the interest in entrepreneurship significantly. The results of this study are in accordance with the research of Pratama et al (2017) which states that internal and external motivation has a positive effect on interest in entrepreneurship. Likewise with the study of Saputri et al (2016) which states that motivation has a positive relationship with the interest in entrepreneurship. Entrepreneurial motivation is the desire of individuals to progress and develop independently, but it can create jobs for others. By understanding this, it will encourage an individual to carry out activities to open a new business. So with motivation, it will provide encouragement and effort for students to make creative, innovative and useful efforts by developing ideas and resources to determine opportunities and improvements in life and engage in business competition.

### **Discussion and Conclusion**

Based on the results of the study, it can be concluded that there is a relationship between self-efficacy and interest in entrepreneurship. The relationship between self-efficacy and interest in entrepreneurship occurs because the challenges of the task in entrepreneurship are very diverse and with high self-efficacy individuals will be more confident in their ability to complete their tasks so that individuals have high entrepreneurial interests. This is certainly because individuals have confidence in their ability to deal with the risks that exist when entrepreneurship.

Then there is a significant relationship between creativity and interest in entrepreneurship. The relationship between creativity and interest in entrepreneurship is quite caused because the population in the study is students who all have not started entrepreneurship. In addition, students are still thinking of working in a large company as a choice of career, so that students have not been able to develop their creativity in running entrepreneurship. Creativity will play a role when entrepreneurship starts because an entrepreneur is faced with a variety of diverse problems that require creative solutions.

Then there is a relationship between motivation and interest in entrepreneurship. The relationship between motivation and interest in entrepreneurship occurs because of a motive to meet the needs and desires of the individual. A person's motivation depends on the strength of the motive. Motives with enormous strength will determine a person's behavior. Motivation is closely related to meeting a need, acting to meet the needs and attainment of those needs so that a person does not feel that the need is fulfilled, then he tends not to do something to fulfill

those needs. If someone does an activity he will feel happy. Therefore it can be said that between needs, actions, goals take place because of a motivation.

Based on the conclusions described above, a number of suggestions can be made relating to the results of the research. The suggestions that can be submitted are as follows:

- a. The definition of interest in entrepreneurship in this study is still general, so it is suggested that interest in entrepreneurship is more specific, such as being interested in businesses in the field of services, culinary, fashion etc.
- b. Motivation in this study has not been distinguished intrinsically and extrinsically, so it is recommended for further research motivation variables can be divided into two aspects so that it can measure which factors are more dominant in influencing entrepreneurial interest
- c. For researchers further can expand their research studies based on gender, age or ethnicity because these three aspects can distinguish self-efficacy, creativity, and motivation in relation to one's interest in entrepreneurship.

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# Sharia Accounting Theory in Indonesia in Moral Perspective

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## **Abstract**

The purpose of this research is to describe the theory of sharia accounting in Indonesia according to moral theory. The method used in this study is qualitative research with an ex post facto analysis approach with the type of literature study, namely the existing Islamic accounting theory literature is analyzed by moral theory. The results showed that sharia accounting theory in Indonesia was developed with the approach of applying sharia in a deductive and inductive way and because Indonesia is not a religious state, the application of sharia is emphasized on moral aspects so that the resulting sharia accounting has no power in the sharia side. This research has differences with other studies because this research was carried out in the view of moral science.

**Keywords:** Sharia Accounting Theory, Moral Perspective, Development

## **Introduction**

Islamic accounting is a relatively new field of science in Indonesia whose movements are evident since the establishment of Islamic banks. Islamic banks in Indonesia develop because there are developments in Islamic economic thought. Sharia economic activity in Indonesia as stated by Praja (Praja, 2012) is not done formally but has been acculturated in Malay culture. Malay culture has thus become one with the Islamic religion so that Indonesian society does not need Islamization in the economy in the name of Islam but Indonesian people are more in need of applying Islamic sharia in maintaining their economic and business life. The striking development of the Islamic economy represented by Islamic business has been seen since the 1990s. However, the development of sharia business is not accompanied by the development of knowledge of sharia economic actors in implementing sharia, including in the field of sharia accounting.

Islamic accounting theory as a tool for accounting practitioners in applying Islamic accounting in Indonesia has experienced rapid development of thought. Some scholars from Indonesia such as Sofyan Syafri Harahap, Iwan Triyuwono, Aji Dedi Mulawarman, Dudi Abdul Hadi and thinkers who are members of the association of accountants in Indonesia, namely the Indonesian Institute of Accountants (IAI) have formulated various sharia accounting theories formulated with the intent to accommodate Sharia business activities adequately in Indonesian society. Islamic accounting thinking in Indonesia according to Hadi (Hadi, 2018) is divided into two major streams namely deductive idealism represented by Iwan Triyuwono and Aji Dedi Mulawarman and inductive pragmatics represented by Sofyan Sjafrie Harahap and thinkers on IAI. This opinion is in line with what was stated by Rahmanti (Rahmanti, 2012) and Aji Dedi Mulawarman (Mulawarman, 2009). Thought that divides the two accounting theories with a deductive and inductive approach, however, is not in line with the culture of Indonesian society which only requires the application of sharia in economic activities including accounting. The need for the application of sharia according to the science of ushul fiqh clearly requires the establishment of sharia in a deductive and inductive manner, so that

the formulation approach is joint. Therefore, further study is needed to provide a clearer knowledge of what approaches have actually been taken by Islamic accounting thinkers in Indonesia.

## **Literature Review**

### **History of Sharia Economic Thought in Indonesia**

Islamic economics in Indonesia cannot be separated from the development of Islamic economics in the world. Islamic economics in Indonesia cannot be separated from the history of the entry of Islam into Indonesia. Sharia economic activities in Indonesia according to Praja (Praja, 2012) are inseparable from the conception of lingua franca, namely an economic activity that has been diffused in the culture of Malay society which is reflected in its language. The economic actors at the beginning of the arrival of Islam in Indonesia were dominated by Malays who had embraced Islam so that Malay became the language of trade and association. Malay language thus absorbs a lot of Arabic in its vocabulary. This absorption proves that Malay behavior has been influenced by Islam. The rise of the Islamic economy at the end of the 20th (twentieth) century at the next stage of economic life in Indonesia began with Islamic financial institutions, one of which was the emergence of the Islamic cooperative movement. The Islamic cooperative movement according to Praja (Praja, 2012) starts from students and boarding schools. This Islamic cooperative movement was followed by the establishment of Islamic banks. The first Islamic bank to be established in 1990 was Bank Muamalat Indonesia (BMI) initiated by the Indonesian Ulema Council (MUI) and the Association of Indonesian Muslim Intellectuals (ICMI). The establishment of Islamic banks is increasing in Indonesia because of the growing support of the government and society. Factors that support the rapid development of Islamic banks according to Praja (Praja, 2012) are due to legal certainty through the enactment of the Sharia Banking Act, then the Indonesian public's awareness of the benefits of Islamic banks and the political will of the government to develop Islamic banking.

The development of sharia business in Indonesia was not followed by an education on understanding the nature and behavior of sharia business both at the academic and community levels. Growing business turnover of Islamic banks is not followed by an understanding of the application of sharia in business behavior so that the sharia business that occurs is only up to the Islamization of the names of institutions and products, so it is not surprising that people who do not understand accuse Islamic banks are not different from conventional banks. But whatever the opinion of the people towards Islamic banks, the development of Islamic banks as part of the sharia business is evident in Indonesia.

### **History of Islamic Accounting Thinking in Indonesia**

Sharia accounting is an Islamic-based accounting. Islamic accounting is only used in Indonesia while the accounting community outside Indonesia calls sharia accounting as Islamic Accounting. Islamic accounting or Islamic accounting is an accounting based on Al-Quran and al-Hadith, ijma and qiyas of the ulama are also other sources of law. Accounting in Arabic is Al-Muhasabah derived from the word masdar hassaba-yuhasbu which means counting or measuring. In terms, al-Muhasabah has various origins, namely ahsaba which means "to keep" or "try to get" also comes from the word Ihtiasaba which means "expect reward in the hereafter by being accepted by someone's book from God", also means "making attention" or "account for it. If the word muhasabah is associated with ihtisab and its image is associated with recording, then it means that someone's actions continually arrive at the afterlife and through the scales (mizan) as the measuring tool, as well as God as the accountant. This statement is also supported by the opinion of Hadi (Hadi, 2018). In addition, if the revelations of Allah SWT listed in Sura al-Baqarah verse 282 are observed it turns out that Allah SWT ordered to write correctly for all transactions that have occurred during muamalah. From the results of the

writing it can be concluded that accounting can be used as information to determine what someone will do.

The International Islamic accounting community initially formed the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) to accommodate thoughts in sharia accounting previously called the Financial Accounting Organization for Islamic Banks and Financial Institutions (FAO-IFI) established on 1 safari 1410 H or 26 February 1990 in Aljiria. Which was later ratified as an independent non-profit organization in Bahrain on 11 Ramadhan 1411 or March 27 1991 (AC, 2014). In Indonesia on May 1, 2002, PSAK 59 Accounting for Islamic Banking and the Basic Framework for Preparing Sharia Bank Financial Statements were formally valid from January 1, 2003. The chronology of the depreciation of Islamic banking PSAK was explained by Ali Mauludi AC (AC, 2014) that in January- June 1999, the public began to propose accounting standards for Islamic banks. In July 1999, the proposal entered the agenda of the consultative council of Financial Accounting Standards (SAK). in August 1999, a Sharia bank SAK statement was formed. In December 2000, the drafting team completed the concept of the exposure draft. On June 1, 2001, the exposure draft was ratified regarding the Basic Framework for Preparation and Presentation of Sharia Bank Financial Statements (KDPPLK) and Statement of Accounting Standards (PSAK) for Accounting for Islamic Banking. On May 1, 2002, legalization of Sharia Bank KDPPLK and Sharia Banking Accounting SFAS. On January 1, 2003, the Sharia Banking Basic Framework applies. Sharia Bank financial statements and Sharia Accounting Accounting Standards. After three years of use, many people feel that PSAK 59 can only be applied to three types of entities as stated in the scope of Islamic banking accounting, namely that PSAK 59 is only used for Islamic Commercial Banks (BUS), Business Units, Sharia (UUS) and Sharia Rural Banks (BPRS). Finally, on October 18, 2005 IAI responded by forming a Sharia Accounting Committee (KAS) which was tasked with formulating Sharia Financial Accounting Standards. Within 1 year after the establishment of KAS, it tried to make a contribution by developing the principles of general Sharia Accounting (House of Generally Accepted Sharia Accounting Principles), the Basic Framework for Preparation and Presentation of Sharia Financial Statements, and six ED PSAK Sharia concepts. The products produced by KAS are targeted to meet three quality characters. First, it is the rules that reflect the elaboration and principles of sharia which are based on the Koran, as-Sunnah, and Fatwa Jumhur Ulama. Second, it refers to the accounting arrangements for sharia transactions that are supposed to be and not facilitate pragmatic conditions (practices) or habits that are not necessarily or unclear from the sharia foundation. Third, formulated by considering the principle of prudence and if necessary detailed in more detail to avoid interpretation and or Sharia Accounting. On September 19, 2006 the Financial Accounting Standards Board (DSAK) agreed to disseminate the Exposure Draft Sharia PSAK consisting of the Basic Framework for Preparation and Presentation of Sharia Financial Statements (KDPPLKS), PSAK 101 concerning the Presentation of Sharia Financial Statements, PSAK 102 concerning Murabahah Accounting, PSAK 103 concerning Salam Accounting, PSAK 104 concerning Istishna Accounting, PSAK 105 concerning Mudharabah Accounting, PSAK 106 concerning Musyarakah Accounting. Furthermore, on February 26, 2008 IAI also issued 3 Exposure Drafts of additional Sharia PSAK namely ED PSAK 107 concerning Ijarah Accounting, ED PSAK 108 concerning Accounting for Settlement of Murabahah Debt, and ED PSAK 109 concerning Accounting for Zakat and Infaq / Alms. The Financial Accounting Standards Board (DSAK) has even agreed on the block number group for Sharia PSAK, which is number 101 up to number 200, this shows the seriousness of IAI in responding to the development of accounting practices in Islamic financial institutions in Indonesia. The latest SAKS issued by IAI is SAKS which is effective as of January 1, 2017 with the revision of PSAKS 101 to 109 and the addition of PSAKS 110 concerning sukuk

**Ontology, Epistemology and Sharia Axiology in Indonesia**

Islamic accounting, as noted by Hadi (Hadi, 2018) is a reality. What these facts in the view of scientists can be said to be ontology. Ontology is part of the philosophy of science that examines the nature of the existence of an object both materially and formally (Bahrum, 2013). Islamic accounting is a noun phrase whose meaning is determined by the usefulness of sharia accounting itself, namely accounting based on sharia. Sharia in language means the way (Siregar, 2015) that brings people to safety. The safety in question is in the world and the hereafter. The special form of the road is religion. Islam is a religion that surrenders to the one who makes the path, namely Allah SWT. Islam contains three main elements that are the pillars of the Islamic path, namely belief, sharia and the last is morality (Al Balidi, 2015). Behavior can take the form of starting feeling in the heart, mind until the action is born. All of these behaviors lead to the act of birth. These actions are of religious value so that is an ethical action. Because one form of ethical action is accounting that aims to account for a belief, accounting itself is sharia in the form of activities to show accountability. But because the actions are carried out can be for the sake of mere creatures and are not in the way of Allah's sharia, then not all accounting is sharia but one of them is accounting. Accounting which is equivalent to Muhasabah in sharia terminology is rooted in the word reckoning which Allah used to use especially in the mention of the name of the day in the afterlife, namely yaumul hisab as stated in Al Quran Ghafir verse 27 and Shaad verse 16 (Al Quran, 2010) whose translation is "And they said," Our Lord, immediately the punishment that was destined for us before the day of reckoning. "Islamic accounting is thus the responsibility addressed to Allah SWT. Accountability before Allah SWT is done in the hereafter precisely at yaumul qiyamah where the court of Allah SWT was established on that day muhasabah was carried out in the sense of calculating charity to ask for accountability, proof and acknowledgment of one's charity before Allah SWT. This muhasabah day is done on yaumul hisab which is the day when the count of charity is produced, and this is a reality in Religion. The evidence that supports this is as the Word of Allah SWT in Al Quran Ghafir verse 27 and other verses that are the same or support the verse reckoning (Abu Ahmad, 2014) like the letter Al Qari'at verses 6 - 11 (Al Quran, 2010) the translation is as follows:

"Then as for the person who weighs the weight (his goodness) (6) then he is in a satisfying life (7) and as for the person who weighs the balance (his good) (8) then the place of return is hell (Hawiyah) (9) and do you know Hawiyah's hell? (10) (ie) very hot fire (11). "

The process of muhasabah begins when Allah SWT gives all humans a book or their charity record that is received with the right hand for the survivor or the left hand for the wretched, then reckoned (in the sense of being counted) to produce a reckoning (in the sense of count). Charity counts can be mild, namely charity that is accounted for by human beings a little because everything is done according to the shari'ah of Allah SWT and some are difficult, the charities that are accounted for are many and complicated and the latter is a charity that is judged, considered and saved because of the Grace and virtue of Allah SWT. the sinner. When this reckoning is shown to every human being, humans are asked to confess and reason for their deeds. (Al Qadhi, 2014). This is the activity of the Holy Prophet in the Hereafter. Hereafter life in Q.S. Al Bayyinah verse 8 is eternal. The eternal means in the full control of Allah and there is no human endeavor. The nature or the ontology of Islamic accounting thus occurs or exists when there is Allah SWT, there are humans, there are records, there are counting activities, considerations, recognition of human charity in the record, human charity assessment and request for accountability. This is the sharia of Allah SWT to establish His justice. Sharia is produced because Allah SWT is Al Musyri 'or sharia maker. The opinion that Allah SWT has' urf or customary habits to make sharia strengthened by many scholars, one of them is Abul Abbas Al Shanhaji (Al Shanhaji, 2001) while Allah SWT as a sharia maker is reinforced by the opinion of Abu Zahrah (Abu Zahrah, 1957), Khalaf (Khalaf, 2010), Al Zuhayli (Al Zuhayli,

1986) and Al Saqqaf (Al Saqqaf, 2005). Muhasabah of Allah SWT to humans must be believed by humans with faith in the Hereafter and in the Day of Judgment. Humans to avoid loss on the day of reckoning, humans must always do muhasabah an Nafs (interpreted as muhasabah self) which ontologically occurs when there is a spirit, there is reason, there is lust, and there is action. Actions are judged by the quality of reason, which when inclined to the spirit as a good and if the tendency to lust is counted as evil. This reality is in line with the theory of takhalluq bi akhlaqillah or having the character of Allah SWT (Noer, 1995) who performs reckoning in the afterlife. Muhasabah is not only self but also what is mandated that is property so that then another reality arises namely muhasabah maliyyah (which is defined as muhasabah assets). Muhasabah maliyyah occurs when there is a manager, there is a business, there is income, there is a burden, there is a calculation of profit and loss or sustainability.

The act of Allah SWT to demand accountability epistemologically can be known from the nature of Allah SWT, namely Al Hasiib, which means that it is reckoning. Whereas from the nature of Al Musyri 'or sharia makers epistemologically it is known that there is accountability because of the right standard of living called sharia. Allah SWT as the giver of grace to save the sinner is known from His Name which is also His Attributes as the Rahim. Allah SWT records and maintains all charity can be known from the Nature of Allah SWT Al Hafiidz (meaning that is to maintain). Allah SWT who rewards and tortures as a result of the existence of muhasabah is also a way of knowing the existence of reckoning. The belief in the occurrence of muhasabah is gained by using the knowledge of monotheism or with the faith. The certainty is passed by witnessing which is discussed in Sufism both through the witnessing of knowledge, wijdu and bashirah (inner vision). These three instruments of witnessing gradually occur when the state of the heart is in the state of Islam, faith and ihsan. The state of faith and righteousness is achieved when the servants of Allah SWT ma'rifah and mahabbah towards Allah SWT who also depends on the readiness for the tajalli of Allah SWT. Mahabbah means love of Allah SWT (Al Qusyairi, 2011). The mahabbah state which is meant in the relationship of love of a servant to his God is Allah SWT is not a man's love for a woman or vice versa but the situation that someone encounters in his heart is respect, willingness and continuity of dhikr in the sense of remembering in his heart to Allah SWT (Al Qusyairi, 2011) Imam Al Muhasibi added that with other indications, that is always the suitability of the condition of the servant with Allah SWT, both hidden and clear and always aware that the servant is always lacking in his love of Allah SWT (Al Qusyairi, 2011). This self evaluation is called muhasabah an nafs. Muhasabah nafs is understood as Sufism.

Sharia to do muhasabah treasures understood with fiqh and ushul fiqh. Both of these sciences are used to understand and explore the shara's practical laws, such as compulsory, sunnah, mubah, makruh and haram. The five laws were extracted from Islamic legal sources, namely the Qur'an, the Sunnah of the Prophet Muhammad, Ijma 'and Qiyas according to the ulum ulum (Khalaf, 2010). Besides the four sources of law, there are other sources of law, namely istihsan, maslahah mursalah, istishhab, shahabat shahab, syar'u man qablana, and 'urf. Islamic accounting can thus be understood using fiqh and fiqh ushul in accounting. The use of jurisprudence in accounting has also been carried out by Azharsyah (Azharsyah, 2010). Islamic accounting at the axiological level is thus a moral to account for accounting activities.

## **Method**

Research on what is Islamic accounting has also been discussed by Iwan Triyuwono (Triyuwono, 2015) through his mandate metaphor as well as Kusdewanti (Kusdewanti, 2016) through prophetic accountability. What is Islamic accounting and how to produce sharia accounting in this article is reviewed by an ex post facto design approach which according to Nworgu (Anyanwu, Ogboji, Etonyeaku, & Ihome, 2016) is a type of research when data is collected after the phenomenon studied. Qualitative literature study type research methods are

used to analyze existing literature on sharia accounting theory that represents pragmatic and idealistic streams selected and analyzed with literature on Sufism. The criteria for the chosen theory is that the theories are compiled by the originators by using sharia both in whole and in part in the theory. The theories analyzed were from Iwan Triuwono and Aji Dedi Mulawarman as representatives of idealistic thinkers. This idealistic flow is in accordance with the opinion of Napier (Napier, 2009) regarding the first group of thinkers that Islamic accounting really must be built on the foundation of Islam. Sofyan Syafrie Harahap and the Islamic Accounting Standards Board from IAI were selected for the originators and users of pragmatic accounting theory based on the opinion of Napier (Napier, 2009) including the second group of thinkers who wanted to have Islamic accounting for financial institutions. Whereas the third group of the three groups proposed by Napier (Napier, 2009) is a proponent of thought so that there is regulation for Islamic accounting grouped as part of a pragmatic flow. The selection of the sharia accounting thinkers was also strengthened by the opinion of Rahmanti (Rahmanti, 2012). The opinions of experts regarding the existing Islamic accounting theory are analyzed, supplemented and rearranged based on the moral theories used by Sufis to then produce an overview of sharia accounting theory in Indonesia.

### **Findings**

The accounting theory analyzed resulted in the finding that Islamic accounting is different from conventional accounting in that Islamic accounting contains elements of sharia in its accounting. Sharia thus becomes the foundation for laying down the structure of Islamic accounting theory. Sharia is a way that can be seen as a set of Allah SWT rules that are revealed in the form of aqeedah, morality, and sharia. These three foundations are part of the Islamic religion. The position of aqeedah is the highest position followed by sharia and morality. But this foundation hierarchy changes into the three highest Islamic accounting theory bases as outlined in the next paragraph.

The structure of sharia accounting theory proposed by Dudi Abdul Hadi (Hadi, 2018) contains monotheism as the foundation of his faith then sharia and morals by constructing sharia accounting theories from Sofyan Syafrie Harahap, Iwan Triuwono, Aji Dedi Mulawarman and IAI in the first order namely Al Quran and the Sunnah proposed by Sofyan Sjafric Harahap and IAI because the AL Quran and Sunnah are the sharia of Allah SWT which are permanent and eternal and there are 'urf syaari' in them in the form of muhasabah. The second sequence is the theory that explicitly includes the faith that is the structure of sharia accounting theory from Iwan Triuwono, Aji Dedi Mulawarman, IAI and Sofyan Syafrie Harahap through monotheism. The third order is the fatwa of the sharia council contained in the structure of the Islamic accounting theory of IAI and the purpose of muamalat for sharia accounting that takes into account the maqashid of sharia contained in the structure of the theory of Sofyan Sjafric Harahap as fourth. The fifth sequence is the moral aspect of the mahabbah concept contained in the structure of sharia accounting theory from Iwan Triuwono and Aji Dedi Mulawarman coupled with the principles of sharia accounting philosophy from Iwan Triuwono. The sixth order is the moral aspect in the form of sharia accounting philosophical principles from the structure of sharia accounting theory Iwan Triuwono. The seventh order is the moral aspect in accommodating the making of financial statements starting from the recognition, measurement, presentation and disclosure which in this case covers the theoretical basic concepts of sharia accounting: instrumental, socio-economic, critical, justice, all-inclusive, rational-intuitive, ethical, holistic welfare from Iwan Triuwono, Basic Concept of Sharia Financial Statement Preparation and Presentation (KDPPLK) from IAI, and SET as well as financial report trilogy with maisyah, rizqi and maal from Aji Dedi Mulawarman. The conceptual foundation will be translated into an operational basis in the form of sharia accounting standards resulting from the interaction of research, PSAK and PSAKS and

bulletins that are used as special reference for the field of sharia accounting such as the research conducted by Adnan and Abu Bakar in the zakah field (Adnan & Abu Bakar, 2009) and other studies. The eighth order is the sharia accounting standard that was previously contained in the structure of accounting theory from IAI. The ninth order is the practice of Islamic accounting which is also very te

## **Discussion and Conclusion**

### **Discussion**

Islamic accounting theories that are used as material to develop new sharia accounting theories are the theories of Iwan Triyuwono, Aji Dedi Mulawarman, Sofyan Sjafrie Harahap, and the Indonesian Institute of Accountants (IAI) on the grounds that all four theories have included aspects of faith, aspects the morality and aspects of sharia although vary in size of their use. Islamic accounting theory according to the idealist approach is represented by Iwan Triyuwono and Aji Dedi Mulawarman. Sharia accounting theory according to Triyuwono (Triyuwono, 2009) is a set of principles logically derived to be used as a reference in measuring the feasibility of accounting practices and in developing accounting that can provide guidelines for correct accounting practices. The correct accounting practice according to Iwan Triyuwono is of course that is in accordance with the three pillars of Islamic sharia and not just the aspects of sharia in the sense of sharia, but the meaning of sharia in the broadest sense. Iwan Triyuwono in his book entitled Sharia accounting: perspective, methodology and theory (Triyuwono, 2009) also mentions sharia as a source of ethical values and a form of Islamic ethical law. Sharia is thus a standard for muhasabah an nafs.

Sharia accounting theory according to Triyuwono (2009) accommodates aspects of muhasabah an nafs through a hierarchical structure that is the first is monotheism which means that humans must perspective khalifatullah fil ardh as the leader and manager of the earth of Allah SWT and has the duty to realize the values of divine justice, and bring humans to divine awareness through three elements, namely faith, knowledge and action. Faith means faith, knowledge means knowledge and action means charity. All three are trilogies of self-realization that will emerge in Islamic accounting practices. The form of accounting that emerged was humanist, emancipatory, transcendental and teleological accounting which meant that Islamic accounting would lead humans to be humane both mentally and spiritually, and be able to make changes to the emancipatory accounting theory and practice within the limits of sharia Allah SWT is broadly namely as khalifatullah fil ardh earlier, which manifests the goal of khalifatullah fil ardh itself is accountability to Allah SWT in the field of accounting (teleological) and the realization of this responsibility will be assisted by concepts from other sciences, because all knowledge it is from Allah SWT, to then realize the attributes of Allah SWT which is called asmaul husna totaling 99 names.

Sharia accounting theory proposed by Hadi (Hadi, 2018) also accommodates muhasabah an nafs at the level of human form. In the human form muhasabah an nafs is 'urf man inwardly which reflects 'urf syaari 'to always count self-deeds. This calculation of charity uses the tools of reason, lust and spirit. Nafs in the sense of self will use reason to calculate and take into account all aspects that hinder the self to taqarrub to Allah SWT, namely lust, including the strengths and weaknesses of reason in its efforts to always be in a deep acknowledgment and faith in Allah SWT. and deeds. Oral although it is a form of deed but in the sharia he is treated separately because it could be oral not in line with the action so that in fiqh is given a special position that is as a recognition tool can also be proven by the sharia of Allah SWT in the Quran Al Yasin verse 65 which means " on this day we keep their mouths shut, their hands will say to us and their feet will testify to what they used to do "which indicates that verbal, hands and feet are separate entities from actions that will be witnessed by humans whose deeds are muhasabah activity of Allah SWT. Oral, therefore, Islamic jurists were made a condition for

measuring faith as stated by the Syafiiyyah and Hanabaliyyah (Haqi An Nazili) Islamic scholars. In order to harmonize with the tools to understand 'urf syaari', verbal and deeds should be separated. The heart is also separated because the heart is the faculty of reason which is the place of knowledge and feeling which is the place of belief. Good knowledge is principled knowledge of syara'. This knowledge makes knowledge not as an aim but as a tool for charity. Knowledge must therefore be applied. The minimum belief that must be possessed to realize this knowledge into charity is that the slightest mistake has been avoided. Actions as an appearance of faith and ihsan consistency of a human being must fulfill the moral aspects of Islamic sharia derived from fiqh in the form of sharia worship and muamalah. Morals which are based on sharia and true aqedah will bring a servant to be able to cleanse himself from 'urf fasid both physically and mentally so as to make himself more holy and clearer in reflecting the divine presence to further be able to do takhalluq bi akhlaqillah which is the characteristic of mahabbah so that finally able to achieve a close position with Allah SWT loved by Allah SWT.

Sharia manifestations in the aspects of sharia in the theory of Iwan Triuwono (Triuwono, 2009) began to be seen in thinking about the basic concepts that accounting is instrumental, socio-economic, critical, justice, all-inclusive, rational-intuitive, ethical, holistic welfare that can be compared with the maqashid al sharia concept in fiqh science. The reason underlying this opinion is that the accounting objectives are as an instrument, or wash or intermediary in realizing overall human well-being both the world and the hereafter which is also full of goodness because it is based on ethical actions guided by rational nature or according to sunnatullah applicable to all groups are justly, always adjust to the changing times because being a new creature will always experience renewal and change both in terms of social and economic, or economic community which is the goal of establishing sharia. Islamic accounting theory from Iwan Triuwono seeks to encourage sharia accounting to become a facility to gain benefit through the last concept of the principle of holistic welfare and enter into the aspects of sharia.

Sharia in the theory proposed by Hadi is in line with fiqh science set with the intention that the maintenance of human benefit in terms of religion, self, reason, descent and wealth. (Abu Zahrah, 1957). This Maqashid sharia is a sign of the occurrence of muhasabah in the self to the treasure. The safekeeping of the benefit of the assets is regulated by the sharia muamalah. Humans who receive the mandate of property in the framework of takhalluq bi akhlaqillah will try to maintain their wealth from loss. Even if a human gets shortcomings in his property but he must remain in benefit by the way of confession of faith to Who Gives Help, that is Allah SWT through his oral also follows 'urf syaari' to love him to continue to live, as 'urf syaari' to forgive the sins of sinners and give him grace so that he enters heaven.

Welfare in the world and in the hereafter can be obtained if sharia accounting practitioners do muhasabah correctly, namely the position of assets must be properly classified as wealth, debt or capital, and measured correctly with honest and timely values. 'Urf Syaari' requires zakat so that human property is worthy of being the right of the owner to be entrusted by Allah's wealth. Debt also according to "urf syaari" must be recorded and paid so that the calculation of the wealth is clear. If the debt is not really unable to be paid then it should be released. This 'Urf syaari' again shows that the Grace of Allah precedes His wrath or the punishment is set aside if there is honesty and sustaining life is prioritized. Muhasabah companies like this produce a better life in accordance with the sharia of Allah SWT. Muhasabah is done, of course, by calculating the benefit of reason which means that muhasabah is done in the right way. Humans as natural copies certainly have a variety of accounting practices so that for humans to survive in the world, human urf is also implied in this theory because the proposed philosophical concept of sharia accounting requires an assessment of correct accounting practices.

Sharia accounting theory from Aji Dedi Mulawarman is formulated with the structure of sharia accounting theory in sequence, the first is the sharia accounting objective which means that sharia accounting is the realization of the love of Allah SWT so that accountability of recording until reporting mentally, spiritually must be in accordance with sharia values . (Mulawarman, 2009). This shows that there is a continuous effort takhalluq bi akhlaqillah to become a mahabbah habit. Mahabbah is a character that is f urf inner man in the theory of sharia accounting based on ‘urf from Hadi. Thus the concept of monotheism of Iwan Triyuwono, Sofyan Sayfri Harahap and Aji Dedi Mulawarman was identified as the thinking of these three experts to manifest the aspects of aqeedah and morals in Islamic accounting theory. The concept of monotheism is supported by the 42nd argument in the Qur'an, namely Ash Shura verse 11 which means "... There is nothing similar to Him. And He Who is the Hearing, the Seer, the difference with the creatures stated in the 112th Al-Quran, namely Al Ikhlas verses 1-4 which means (Al Quran, 2010) "Say (Muhammad), He is the One and Only God (1) ; God where to ask for everything (2); (Wahdan & Nofal) do not have children and are not begotten (3); And there is nothing equivalent to Him. "Mahabbah is supported by the proof in the 5th Al-Quran Letter, Al Maidah verse 54 which means (Al Quran, 2010)" O you who believe! Whoever among you is apostate from his religion, then later Allah will bring a people. He loves them and they love him ". Tawhid and Mahabbah in Islamic accounting theory based on ‘urf. Accounting theory in the view of thinkers with a pragmatic approach, represented by Sofyan Syafrie Harahap and IAI. Islamic accounting theory according to Sofyan Syafrie Harahap (Harahap, 2001) is a very important science in composing and testing accounting principles used in the preparation of financial statements that are made with the aim to be presented to the users so that it is more useful and in accordance with the sharia of Allah SWT. The structure of sharia accounting theory sequentially begins with monotheism (Allah SWT) which means that a Muslim as a reflection of his faith must trust the rules to be khalifatullah fil ardh whose meaning is the same as the meaning put forward by Iwan Triyuwono. In the akuntansi urf-based Islamic accounting theory, this stage of monotheism arises as ‘urf man but in the heart of being always takhalluq bi akhlaqillah. The second position in the structure of the accounting theory is the existence of the Qur'an and Al Hadith of the Prophet Muhammad. Under this concept, the existence of the verses of Sharia Allah SWT is reflected in the form of verses qauliyah and kauniah. Verse qauliyah means that Al Quran and Al Hadith are the main legal sources in the form of writing. Sharia Allah SWT which all people agree on in understanding the definite provisions of the Qur'an and Al Hadith is the verses of the Holy One. Whereas the rules which are mutasyabihat or which have a double meaning are represented in verse kauniah. Ayat Kauniah is verses relating to social phenomena or natural phenomena which in the aspect of sharia are laws that occur in the field of muamalah. The association of accountants is one of the manifestations of the phenomenon in the accounting field which is stated to cooperate with sharia associations, namely fiqh experts to formulate the objectives of financial statements in accordance with the social phenomena that occur. In this stage reflected the harmonization of accounting customs that have no sharia to become urf. Sofyan Syafrie Harahap seems to see that this aspect of the faith is antiseden from the concept of human urf. Whereas human urf is in the form of accounting practices under sharia.

The purpose of muamalat is the next element in the structure of sharia accounting theory Sofyan Sjafrrie Harahap. The goal to be achieved by Islamic accounting is Amar am'ruf nahi munkar with the meaning of ordering goodness and rejecting kemunkaran so that it is supported also by the principles of justice and truth covering truth in the form of social benefits in the form of cooperation among all economic and business actors as ordered by Al The Quran is helping each other in kindness as the Word of Allah SWT in the Holy Qur'an in the verse Al Maidah verse 2 (Al Quran, 2010) encourages zakat as the obligation of every Muslim who has fulfilled the requirements of tithe, removes usury which is not in accordance with the truth of Allah

SWT, and also to avoid waste. This opinion is in line with 'Izzuddin Ibni Abdus Salam in his book entitled qawa'id al kubra on juz 1 page 11 (Ibni Abdus Salam) which states that happiness that is most beneficial (in the good sense) is ma'rifat, faith and obedience to Allah SWT because all three will bring to good in the world and the hereafter. In life in the human world will get the happiness of life and in the hereafter will be facilitated to enter the heaven of Allah SWT. Diverse social phenomena do not change the purpose of financial statements, namely to realize the goal of sharia benefit for all humanity by supporting the vision of advancing good and rejecting evil. From the goal of social welfare that has been established, then the accounting profession association is described into various kinds of sharia postulates and accounting principles.

The postulates and basic principles of Islamic accounting derived from the purpose of financial statements that contain the objectives of the muamalat incident make the postulates and principles formulated are fundamental and support the measurement and disclosure of information to support benefit. This principle of sharia accounting is expressed in a statement that can be considered in implementing sharia accounting practices in the form of sharia accounting standards. Islamic accounting standards in the structure of sharia accounting theory Sofyan Sjafrie Harahap further implies that the standards derived from sharia combined with 'urf man become a codified operational aspect which contains recognition, measurement, presentation and disclosure of accounting events that can fulfill human responsibility towards Allah as the caliph or representative of Allah SWT on earth as stated in the tauhid aspect of the sharia of Allah SWT.

The theoretical basic concept of sharia accounting proposed by Aji Dedi Mulawarman (Mulawarman, 2009) states that accounting as a form of accountability to Allah SWT also brings horizontal implications in the form of accountability to all beings of Allah SWT. The next implication is that the entity formed carries the concept of sharia enterprise theory (SET) or an accounting entity theory that bases on the broad meaning of the company. But sharia in the sense of sharia is also accommodated in the case that every process and distribution of welfare must meet the criteria of halal, thayyib and free of usury. These three criteria are derived from sharia which is then used as the accounting principle and character of sharia accounting. The characteristics of sharia financial statements which are evidence of accountability to Allah SWT and creatures will contain the nature of balance between the material-spiritual aspects, for the self as well as society or egoistic-altruistic, which contains numerical information and quantitative or qualitative and compliant with sharia rules widely including State rules but must also continue to be innovated in the principle of balance of submission-creativity. The character of this financial report accommodates 'urf human because it is technical. Sharia financial statement technology has an impact on the emergence of the financial report trilogy, namely the first for aspects of maisyah or livelihood, in the form of cash flow financial statements, reports on the production of blessed rizqi in the form of value added reports and reports on maal conditions, namely assets owned in the form of balance sheets. The Islamic-based accounting theory as proposed by Hadi accommodates the need for human reason through the concept of human urf. When the human mind gives the thought of something to be done by humans in carrying out muhasabah maal as long as it aims to be in accordance with the maqashid sharia of Islam and the texts of syar'I in the Al Quran and Al Hadith do not prohibit it, the sharia is permitted. The argument used to establish sharia is because muhasabah must be done and is usually done by humans so that life can continue to be maintained according to the sharia of Allah SWT, namely hifdzun nafs so that the muhasabah value is 'urf or an outward habit of reporting activities will encourage absolute obedience towards Allah SWT in the form of behavior in accordance with 'urf syaari' that is to maintain the benefit of human life personally and in relation to other human beings as well as the lives of other beings around it. The basic concept of making a muhasabah maal with the

aim of safeguarding property can be proposed later on the principles of Abu Ja'far ad Dimasyqi (Kantakji, 2003), namely, firstly, it is not permissible to spend more than can be obtained from his work which is intended to balance in costs and income. The second asset issued cannot match its value with what can be obtained which aims to provide a reserve. The third is recommended not to rely too much on debt due to debt if it is not paid will be taken to the afterlife and reduce the value of charity. The fourth is that someone should not exploit his wealth to something that can slow down his expenses so that other people who need the assets become reduced which is intended not to utilize property to things that slow down the business turnover so they must be on target.

IAI as an institution that accommodates accountants as stated in Wiroso (Wirosa, 2011) states that the composition of the sharia accounting principles is as the Shari'ah Al-Quran of the Hadith namely the written news about the sunnah of the Prophet Muhammad. This Islamic foundation is 'urf syaari'. While Sharia fatwa is defined as sharia recommendations issued by fiqh experts who gather at the National Sharia Council (DSN). This fatwa in sharia-based accounting theory is part of sharia. Conceptual foundation that is named with the basic concept of sharia compilation and financial reporting (KDPPLK) contains a pyramid of sharia financial accounting framework which at its peak is a goal of sharia entity financial statements, then down includes qualitative characteristics and elements of financial statements then below, presentation, monetary units. Operational foundation or practice basis. Level 1 Sharia PSAK and ISAK and general PSAK and ISAK that are in accordance with Sharia. Level 2 International SAK / other countries that are in accordance with sharia, technical bulletins, government regulations for industry (regulation), industry accounting guidelines or practices (study of sharia associations). Level 3 Practices, conventions, and healthy reporting habits in accordance with sharia, teaching textbooks, conclusions of research, articles and expert opinions. This conceptual foundation is derived from fatwa. The fatwa further examines the feasibility of existing accounting practices to become the concept of Islamic accounting practice. The IAI conceptual foundation then became the conceptual aspect of Islamic accounting based on 'urf taken from f urf man because it is technical and pragmatic.

The sharia accounting theory put forward by Sofyan Syafrie Harahap and IAI has similarities in that syariah sources are explicitly included as part of the way a person practices sharia accounting including the sharia extraction process. Sharia accounting at the stage of sharia aspects starting from the fatwa of the national sharia board is then translated into sharia objectives from sharia accounting as a tool to maintain the benefit of religion in the form of holistic accountability in the concept of sharia enterprise theory (SET) in which all stakeholders of an accounting entity are involved both vertical, namely in relation to Allah SWT and horizontally in relation to all His creatures to achieve the benefit of all life. 'Urf-based sharia accounting theory also accommodates this thinking with the concept of humans as natural copies that become the spirit of nature so that human behavior will have an impact on nature. Good morals will certainly bring to the benefit of human life in the world. Likewise vice versa, bad morals will lead to evil in human life. Institutional management is of course not uniformed but given to the ever-changing human customs which, if later made into sharia, require legal sources, namely the concept of f urf. Likewise, zakat as the main product with sharia principles, of course, will cause the institution to be managed in a shar'i manner. The berbasis urf-based Islamic accounting theory proposed by Hadi also accommodates this thinking through 'urf man who is raised to be sharia.

Harmonization of conventional accounting practices into sharia accounting practices is accommodated by Sofyan Sjafric Harahap with the use of the concept of accounting habit phenomena that are placed as part of paragraph kauniah. The idea that verse kauniah is 'urf is in line with the position of man as the dhahir nuskhah of nature. So according to the contents of sharia accounting theory from Sofyan Sjafric Harahap (Harahap, 2001) through the concept

of paragraph Kauniah takes into account the use of 'urf because this concept states that social phenomena can be a source of Islamic accounting. Whereas the social phenomenon must be sharia and must be formulated as f urf.

IAI (Wirosa, 2011) in the structure of its sharia accounting principles, includes the main sharia sources namely Al quran and al Hadits added with sharia fatwas, but does not include 'urf or other Islamic sources such as ijma', qiyas, maslahah mursalah, istihsan. In the theory of Islamic accounting based on f urf, the position of the Qur'an and Al Hadith is placed as the first foundation because these two sources of Islamic law are 'urf syaari'. The aspect of belief in the building structure of accounting theory from IAI (Wirosa, 2011) is not included because of the possibility that the foundation of the creed has been accommodated by the inclusion of sources of Al Quran law, Al Hadith and ulema fatwas which are indeed the domain of the ulama's work to formulate it. Sharia accounting practices have been described in full covering all applicable practices, which are in accordance with sharia, the widespread use of these practices, and agreed upon by many parties both internationally and nationally with sources of thought, both from practitioners, academics, scholars, industry, government and associations the profession signifies the recognition of 'urf in the structure of the IAI theory. 'Urf in the term of ushul fiqh was widely understood and detailed in the operational basis. While the conceptual basis can partly use 'urf and some other Islamic sources. Conceptual aspects relate to ways of thinking to produce accounting products, namely financial statements that start from the purpose of making financial statements, elements of financial statements, types of financial statements, the nature of financial statements, limits, principles and assumptions as well as presentation. The sharia accounting theory of Sofyan Syafri Harahap in the concept of postulate and the basic principles of Islamic accounting is a sharia accounting concept which is also contained in the Sharia KDPPLK from IAI. While the objectives of Islamic financial statements and sharia accounting principles from Aji Dedi Mulawarman although the meaning is different, but conceptually its existence is the same as that stated in KDPPLK Syariah from IAI so that the structure of the new sharia accounting theory needs to include alternative concepts proposed by Sofyan Syafri Harahap and Aji Dedi Mulawarman other than those currently stipulated in Sharia KDPPLK from IAI. The conceptual and operational foundation thus becomes a causal condition due to the application of f urf in the sharia foundation which is a contribution of the Islamic accounting theory from IAI. The construction of Islamic accounting theory based on the four theories of sharia accounting above which are positioned based on sharia will be registered in a structure as listed in table 1. Accounting theory based on 'urf accommodates this conceptual aspect in the form of morals and not sharia because sharia has the element of punishment and rewards at birth. While the Indonesian economic system is not based on religious sharia, so the conceptual aspects are included as moral or moral advice. Moral aspects that get a greater portion of the conceptual aspects of financial statements along with their supporting elements in sharia accounting theory are also considered because to accommodate the understanding that sharia is broad and mankind's diverse manifold can be used to create new sharia accounting practices with conditions to meet the rules of Islamic creed, sharia and Islamic morality. Examples of the application of this theory are such as the accounting standards recommended by Abi Ja'far Ad Dimasyqi (Kantakji, 2003) in terms of maintaining money to be broad in livelihood, blessing in the world and increasing in the afterlife is that obtaining property must be from something known to mean that the work must real, the profit must be real which is obtained lawfully. The impact of this recommendation is more use of cash basis in Islamic accounting. The second standard is that assets are managed well, and the third is that investment must continue to be carried out on the property. Expenditures must be authorized by the owner, his family, his relatives or anyone in the afterlife will receive the benefits. These two standards require legal authorization and validity in the world but also in the hereafter when people who have to earn a living demand their livelihood. Any word and

anyone in the standard also about how to manage well can be handed over to human morality but which is 'urf which is having good and usually. Table 1 presents the results of the conclusions of the research conducted by Hadi (Hadi, 2018)

Table 1: Construction of New Sharia Accounting Theory with Platform Urf

No	Concept	Sharia
1	Ayat qauliyah dan Ayat kauniyah (Al Quran dan As Sunnah)	'Urf Syaari'
2	Tawhid which has indicators, namely: Faith, Knowledge and Action	Aqidah
3	Fatwa of the National Sharia Council Sharia	Sharia
4	The purpose of sharia accounting is the goal of muamalat with the contents of the maqashid sharia	
5	<i>Mahabbah</i>	Akhlaq
6	Philosophical principles: humanist, emancipatory, transcendental and teleological	
7	Basic theoretical concepts of sharia accounting: instrumental, socio-economic, critical, justice, all-inclusive, rational-intuitive, ethical, holistic welfare and Basic Concepts of Sharia and SET Financial Reporting and Presentation (KDPPLK) as well as maisyah-based financial report Trilogy, rizqi and maal.	Akhlaq
8	Sharia accounting standards	
9	Sharia accounting practices	'Urf humans

### Conclusion

Sharia accounting theory is an accounting theory that is intended to account for human actions in the field of management of assets entrusted to them to those who give responsibility in a manner that is appropriate and adheres to the sharia of Allah SWT. Sharia accounting theory in Indonesia turns out to be in line using the deductive and inductive approaches reflected in the Dudi Abdul Hadi sharia accounting theory (Hadi, 2018). Sharia Allah SWT consists of rules that cover aspects of aqeedah, sharia, and morals. Islamic accounting must therefore also contain these three elements. The aspect of faith makes Islamic accounting must contain monotheism to Allah SWT. Sharia aspects make Islamic accounting based on understanding to make accounting behavior have the value of rights and obligations, sanctions and rewards. Islamic accounting must therefore encourage monotheistic behavior which is carried out on the basis of sharia which is represented by the National Sharia Council Fatwa (DSN) under the Indonesian Ulema Council (MUI). This Sharia is implemented to realize maqashid sharia. This kind of behavior is in accordance with sharia, namely moral aspects. The making of the financial statements is carried out with sharia morality which has previously been described which then the principles are codified in a sharia accounting standard. Islamic accounting standards then become a principle in accounting behavior. Accurate behavior thus develops in accordance with the processing of human reason and when settled in the soul and is accepted by good character, the practice is seen as a moral practice of sharia accounting to later become a sharia. Islamic accounting is thus the syar'i accounting that keeps the sharia of Allah SWT and spreads the application of sharia in accounting.

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# Backend Challenges and Issues for E-Government in Indonesia seen through the Perspective of Infrastructure of E-Government Components Cube

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## Abstract

E-Government is a tool to make all of the information provided by the government to be more quickly accessed by the citizen. To achieve this goal, government needs the right strategy, but before determining what strategies to use, governments need to know what are the challenges and issues that occur at this time so that the government can determine the right strategy to provide the best service to the wider community in terms of e-government, especially in terms of infrastructure.

This research aimed to analyze the challenges and the issue of what happens today in the e-government infrastructure that should be a concern of government in order to improve public services to the people of Indonesia through the e-government component cube, literature studies and interviews.

The results of this research is to analyze the backend challenges of E-Government's infrastructure, from Portals, Network, E-Identification/E-Authentication, E-Procurement, Knowledge Management, Office Automation and Other Infrastructure and E-Government issues based on Funding, Management of Change, Privacy, Authentication, Interoperability, Delivery of Services, Standardization, Technology Issues and Use of Local Languages.

**Keywords:** E-Government, Component Cube, Infrastructure, Backend Challenges, Issues

## Introduction

E-Government in Indonesia began to use by 2001 since the emergence of Presidential Instruction No. 6 Year 2001 date. 24 April 2001 about Telematics (Telecommunications, Media and Information Technology) which states that government officials should use telematics technology to support good governance and accelerate the democratic process. But along the way the central government's initiative did not have the support and response of all stakeholders, namely governments characterized by the use of information technology is not maximized.

Based on the current data, the implementation of E-Government in Indonesia mostly just began on stage by the government or the publication of new sites on information provision, in stages of Layne & Lee is new entry in Cataloguing. Data in March 2002 showed 369 government offices have opened their websites. But 24% of these sites fail to maintain the continuity of operation time due to a limited budget. Currently only 85 sites are operating with complete choice. (Jakarta Post, January 15, 2003). Another indicator is the internet penetration reached 1.9 million people or 7.6 percent of the total population of Indonesia in 2001. In 2002 with 667,000 subscribers and 4.5 million Internet users computer and telephone, the percentage of Internet usage in Indonesia is very low [1].

In 2003, in the era of President Megawati Sukarnoputri, the Government introduced a policy that is more focused on the implementation of the E-Government, through Presidential Instruction namely Inpres No. 3 of 2003. This decree contains on Strategic Development E-

Government is also equipped with various Free on E-Government such as: Free Government Portal Infrastructure Development; Free Document Management Systems Electronic Government; Guidelines on the Implementation of the Regional Government website; and others. Similarly, guidelines have been produced by Depkominfo in 2004 that basically has become a reference for the implementation of e-Government in the center and regions. In this Instruction, the President firmly instructed all Ministers, Governors, mayors and regents to build e-government, in coordination with the Ministry of Communication & Information [2]. We can see that the implementation of e-government applications after the issuance of this Inpres it can be said that the progress of the implementation of the e-government is still far from expectations. Data from Depkominfo [3] shows that until the end of 2005 Indonesia only has:

1. 564 go.id domain;
2. 295 central and local government websites;
3. 226 website has started to provide public services via website
4. 198 government websites are still actively managed.

Some local governments are showing significant progress. Even the Surabaya City Government has begun to take advantage of e-government for procurement of goods and services (e-procurement). Some other local governments are also doing well in the implementation of e-government such as: Pemprov DKI Jakarta, Pemprov DI Yogyakarta, Pemprov Jawa Timur, Pemprov Sulawesi Utara, Pemkot Yogyakarta, Pemkot Bogor, Pemkot Tarakan, Pemkab Kebumen, Pemkab. Kutai Timur, Pemkab. Kutai Kartanegara, Pemkab Bantul, Pemkab Malang.

Meanwhile, in terms of infrastructure, fixed line is still below 8 million lines and the number warung telekomunikasi (Wartel) and warung Internet (Warnet), which continues to decline due to the unhealthiness of business competition. According to the Depkominfo, the data of cellular phone has reached 24 million. Although fixed telephone density in big cities could reach 11% -25%, telephone density in some areas that are lagging behind only reached 0.2%. Range of telecommunications services in the form of telephone access reached 65% of the total of about 67 800 rural villages throughout the country. The availability of public telephone number now is still far from the target of 3% of the total connections as targeted in the preparation of the Long Term Development Program II (Program Pembangunan Jangka Panjang II) long ago.

Meanwhile, the number of customers and the Internet users is still relatively low compared to the total population of Indonesia. Until the end of 2004, data compiled various by Asosiasi Penyedia Jasa Internet Indonesia (APJII) gives the number of Internet subscribers is still in the range of 1.9 million, while new users amounted to 9 million people. The low penetration of Internet is clearly not a good shape to reduce the width of the digital divide (digital divide) the Indonesian government agreed in meetings of the International to be reduced [1].

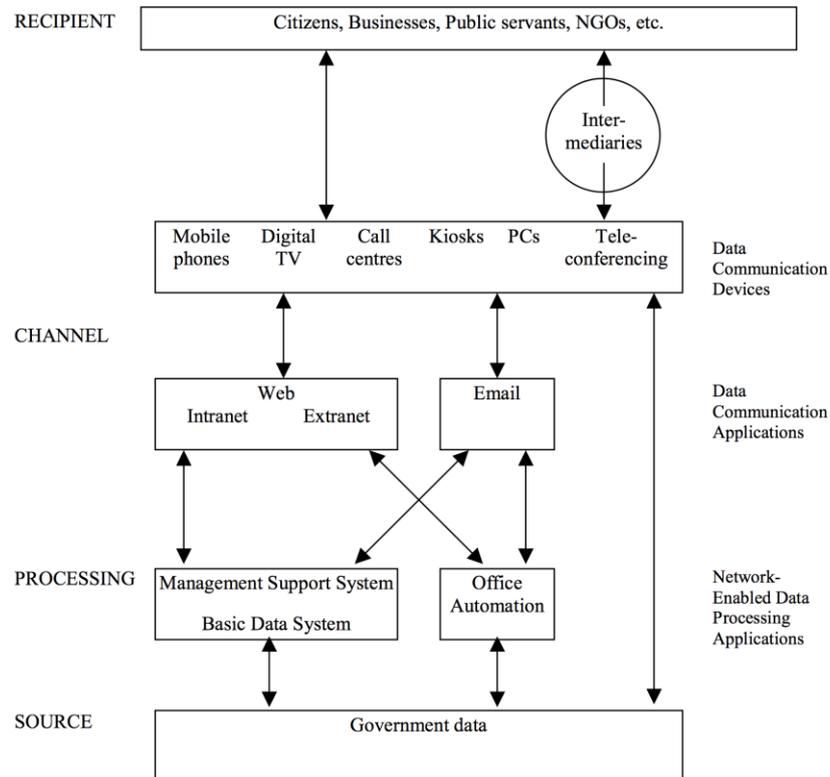


Figure 1: E-Government Architecture

One of the main obstacles in the implementation of e-government is the lack of availability of telecommunications infrastructure. The telephone network is still not available in many places in Indonesia. Fee for the use of telecommunication services are still expensive. Our common hope this can be resolved in line with the development of increasingly sophisticated telecommunications and increasingly cheap. Another constraint is still the number of public service providers in both the central and local public services are not accommodated with internet facilities. Especially in central institutions with technical executing unit and also with other institutions with the same service item (G2G = government to government). In other words it is not well coordinated and the strong interest in the respective sectors [6].

### Research Identifications

From the explanation above it is concluded that the problems faced today are:

1. The government pays little attention to the challenges and issues regarding the availability of telecommunications infrastructure in Indonesia so that e-government that there are now less than optimal.
2. The Government has yet to have a strategy to increase for public services in small

### Research Questions

1. how the current condition of the technological infrastructure of e-government in Indonesia?
2. What are the challenges and issues for the government obtained from point (1)?
3. What are the concern of the government to the challenges and issues in e-government infrastructure today?

### **Research Scope**

The scope of this research is to discuss the e-government infrastructure, the challenges and issues in Indonesia that occur at this time, and the data used from the interview and the references.

### **Research Objectives**

The purpose of this research are:

1. To know dan describe the current condition of technology infrastructure for e-government in Indonesia.
2. To know and describe what is the current challenges and issues for the current government of technology infrastructure for e-government Indonesia.
3. From points 1 and 2 will result in a strategy for government to focus in improvement and optimization the e-government especially in infrastructure section.

### **Research Methodology**

This research will analyse one of the components cube of e-government, infrastructure section, which is the parts of the infrastructure that will be analysed as follows:

1. Portals
2. Intra-governmental secure
3. Network
4. E-identification
5. Databases/authentic source
6. Interoperability tools
7. Knowledge management
8. Infrastructure
9. E-payment system

Below is the procedure of this research:

1. Literature Study  
The study of literature is done by searching for information and reference comes from handbooks and research publications, articles, journals, websites and other information resources related to this research the internet and other resources related to this research.
2. Data Collection Methods  
This research is conducted by collecting data directly to the object of research. Data is collected through:
  - a. Interview  
Used to get information and an overview of the problems that exist at the object.
  - b. Observation  
The process of data collection is done by observing the problems directly on the object.

### **Data Analysis**

This research is analysing data seen through the perspective of one of e-government's components cube named infrastructure. Steps of the analyse that have to do are:

1. Portals
2. Intra-governmental secure
3. Network
4. E-identification
5. Databases/authentic source
6. Interoperability tools

7. Knowledge management
8. Infrastructure
9. E-payment system

## **Methodology Literature**

### **E-Government**

E-Government is the use of information technologies by governing bodies to carry out government activities. E-Government applied in Indonesia to support the performance of a single government, and in running the E-Government has an obstacle in its development in order to make e-government more efficient and effective for the government. Coverage E-Government itself is not just for the sake of public authorities but also the needs of people who want to get the information needed by community. E-Government in Indonesia is expected to increase the efficiency, convenience, and better accessibility to public services. Therefore an evaluation of E-government is needed in order to assess developments in the implementation of E-Government in Indonesia [5].

E-Government is defined as the application of IT in the government aims to make the process work in government becomes simpler, more accurate, responsive and form a transparent government.

By E-Government allows the public to have access all government information and services through a website which is managed by parts of the administration. The operating profit and the implementation of E-Government for government and public sector enterprises such as reducing the use of paper, providing services available to its customers, reducing respond time and reduce errors in the service of E-Government for the community. Application of E-Government in Indonesia itself has obstacles or constraints that make the E-Government in Indonesia may fail in implementation. This can be detrimental to its own government and society because besides the huge cost and a long time but has not been able to provide services in the E-Government to the fullest.

Many factors that affect failures in the implementation of E-Government needs to know in order to find solution to make the whole process of government becomes computerized. Therefore, an evaluation of the application E-Government is in need to know the problem and the solution itself in order to make the E-Government in Indonesia can serve the public effectively and efficiently.

The development of e-government applications require substantial funding so that the necessary readiness of the human resources of government officials and the readiness of society. Surveys in several countries indicate that there is a tendency of government officials should not be held online, because they prefer the traditional method of service in the form of direct face, correspondence or telephone.

We must learn from the causes of the failure of e-government in some countries due to several factors, namely: the unpreparedness of human resources, information technology infrastructure, and lack of attention from the parties directly involved.

E-government is the use of information technology and telecommunications for efficient administration and effective, and provide transparent and satisfactory service to the community. All government organizations will be affected by the development of e-government.

### **1. The definition of E-Government.**

The essence of the notion of e-government is the provision of services by the government through the use of information technology [5]. E-government is also defined as a way of providing government services electronically, usually by relying on internet infrastructure

to reduce the physical character of customer transactions or by using Internet-based applications to improve the functioning of government [5].

So the core of the notion of e-government is the use of Internet-based information technology to support government implementation primarily related to the provision of services to the community. Information technology here is not just the use of hardware alone (eg computer and printer), but all the components of a good information technology hardware, software, networks, applications, and so forth. This is understood as information and communication technology (ICT).

## **2. The Aim of E-Government.**

Generally the purpose e-government is to improve the relationship between government services with various stakeholders, such as citizens, private sector, tourists and other government agencies. Globally, e-government is associated with an attempt to provide an opportunity to improve connectivity, availability and models of interaction between government and citizens. It is also associated with the transformation of government services at present mainly in an effort to increase efficiency, improve processes and automating tasks that were previously performed by government employees [5].

Speaking of connectivity, the main purpose of e-government does lead to service delivery system that is connected to the public (connectivity) is better and the system is functioning properly (efficiency). The purpose of connectivity is achieved when there is a cost savings in infrastructure investment, ICT output generating industrial growth and provide better opportunities to the community. On the other hand, the efficiency achieved when there is the overall cost savings, optimization of government revenues and the achievement of organizational efficiency. Socio-economic cohesion driven by the government's desire to achieve effectiveness through better services and opportunities for its citizens. This could be operationalized through increased user satisfaction, better yield opportunities for citizens, improvement of business environment and increased business opportunities. Other results are expected from e-government initiatives is the improvement of the democratic process in a country, with the main aim being the achievement of openness through good governance. Openness in government can be achieved through the construction of transparency and accountability, openness and participation as well as better administrative system [5].

With the use of e-government expected people to get easy access to government services. Besides the implementation of e-government can also improve the quality of democracy where people can take an active role in providing input and assessment of policies published in order to test the public. This is to achieve transparency in governance through transparency and accountability.

Through the implementation of e-government is expected to give effect to the social and economic conditions. Among the effects of the development of e-government is as follows [5]:

1. Increased interaction and accessibility, which include increased interaction with the wider community (openness), increase business opportunities (effectiveness), and organizational efficiency (efficient).
2. Enhanced cooperation and awareness, which includes the importance of the rule of law through the creation of legislation on e-government.
3. Connectivity better against public administration, administrative better connectivity seen from the reduction in connection fees to the public administration and administrative costs.
4. Increased opportunities for citizens, which is evident from the increasing life expectancy, increasing chances of public schools, information access better jobs, and the increased accessibility of citizens.

**Analysis and Implementation**

Nowadays, the challenge for the government is how to move from a focus on service delivery to providing application-centered people. In other words, the government's success depends on the effectiveness of communicating their information to citizens and to build a strong alliance with them to empower public participation in the decision-making process. At this point, the Internet has the potential to radically change the face of the government to improve communication between public officials with citizens. Currently, governments around the world have launched an ambitious plan to build applications and e-government services [6]. Application services and e-government aims to build an information society. An information society fully exploit the latest advances in information and communication technology (ICT). A key aspect of an information society service of e-government is fully functional. It is expected that e-government is beneficial to face major challenges such as to guarantee better service, increasing the chances of citizens for mobility and for business purposes, addressing climate change or terrorism, better security and better democracy [6].

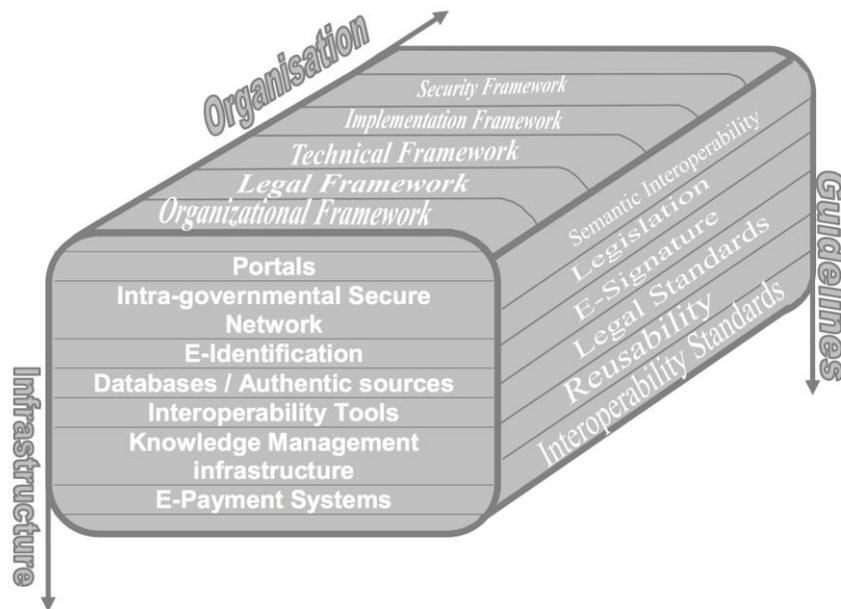


Figure 2: Component Cube of E-Government

E-Government component cube consist of 3 sections, first is organization has 5 sub sections, second infrastructure consist of 7 sub sections and third guidelines consist of 6 sub section as shown in picture above [4]. In this research only focus on infrastructure section, and the result of this research as shown on the table below.

Table 1: Current condition of E-Government in Indonesia

No	Challenges	Current Condition
1	Portals	Every ministry has own portal, not centralized yet, especially for local governments
2	Network	Internet connection speed still under average
3	E-Identification/E-Authentication	No e-identification/e-authentication, low security system
4	E-Procurement	still use traditional way
5	Knowledge Management	Employees skill still under average especially about technology
6	Office Automation	Majority still use traditional way
7	Other Infrastructures	Under development

Table 2: Backend Challenges for E-Government in Indonesia

No	Challenges	Expectation
1	Portals	Centralized, government portal for both local n ministry government, portal open data, government secure gateway
2	Network	Use DSL min 2Mbps
3	E-Identification/E-Authentication	Field of ID card using SSCD
4	E-Procurement	At least 75% already using E-Procurement
5	Knowledge Management	Every employee has IT Certification suit to their jobdesk and national G-CIO for the leaders
6	Office Automation	At least 75% already using Office Automation
7	Other Infrastructure	Suit to the requirement

And the issues of E-Government in Indonesia described below:

Table 3: Current Condition of Issues of E-Government in Indonesia

No	Issues	Current Condition
1	Funding	confidential
2	Management of Change	In progress
3	Privacy	In progress
4	Authentication	In progress
5	Interoperability	Majority still not integrated
6	Delivery of Services	Still use traditional ways
7	Standardization	In progress
8	Technology Issues	Still use old stuff
9	Use of Local Languages	Many app use Indonesian and English

Table 4: Issues for E-Government in Indonesia

No	Issues	Expectation Condition
1	Funding	BOO (Built Own Operate) or BOOT (Built Own Operate Transfer) basis
2	Management of Change	The changes accepted by the government, citizen and employees unions
3	Privacy	Have to keep personal information privately
4	Authentication	Secure ways for all transactions
5	Interoperability	integrated service delivery sites
6	Delivery of Services	The ability to access another major issue for citizens
7	Standardization	addressed
8	Technology Issues	to develop hardware and software platforms to address challenges
9	Use of Local Languages	Use bilingual or GIST

Based on the issues above, there is some strategies for E-Government Implementation in Indonesia:

1. Building E-Governance awareness and commitment
2. Building E-Governance strategic capacity
3. Building E-Governance Implementation capacity
4. Building infrastructure for E-Governance implementation
5. Government process reengineering
6. Building e-governance pilot projects
7. Evaluation of e-projects
8. Identifying projects with long term prospective
9. Global vision
10. Popularizing E-Governance

## Discussion and Conclusion

### Conclusion

The conclusion for this research are:

1. The current condition of the technological infrastructure of e-government in Indonesia still far away from average. Government have to be more concern because the infrastructure is the core of E-Government development. If the infrastructure is in the low level, the E-government will not work optimally.
2. The challenges and issues for the government in Indonesia is about to develop what already use through device, people and environment.
3. The concern of the government to the challenges and issues in e-government infrastructure today is the technology and management of change. It doesn't matter how high the technology that the government is using for E-Government, without management change, the goal couldn't be achieved.

### Suggestion

1. Synchronizing targets for national development in the telematics sector with some of the e-government program that will be implemented across agencies and departments. This step evaluation process as well as e-government program ever executed at all levels.
2. Increase public understanding of, private economic actors, including government officials on the potential that can be donated e-government programs in achieving national development targets and telematics sectors.

3. Complete a variety of major e-government program that has not been successfully implemented, and prioritize the e-government program that can create jobs and help the enforcement of good governance practices in a variety of public services.
4. Increasing access and a range of telematics infrastructure for all parties to give priority to the use of e-government in all socio-economic activities. Included in this is to set a tariff structure that is transparent and affordable for all circles. If necessary tariff differentiation can only be applied to all e-government applications.
5. Allocation of funds e-government needs to be improved to suit the stage that has been achieved. Funds may come from APBN/APBD, international cooperation, or also from the private sector
6. Assign only a few e-government application options -as an example of success- the priorities of development and development resulting in efficiencies in the delivery of public services.

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# Value Relevance of Accounting Information and Faithful Representation against Investment Decisions

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## **Abstract**

The research was aim to prove empirically the influence of the value relevance of accounting information, faithfull representation on investment decision. The background of this research is the existence of phenomena that declining in the value relevance of accounting information. Accounting information as a basis for decision making, investors also use other information in determining investment decisions. As a commitment of funds, investors should be able to determine the right investments, particularly estimate the intrinsic value of the investment to compare the estimates to the prevailing market price. For that need was to be tested how the response of investors to information. In an efficient market, the information responded quickly, meaning that market prices reflect information or no relevant information is overlooked market that does not delay the decision-making reaction resulting in delay their stock prices. It can be concluded that the relevance of accounting information and the accuracy of financial statements influence on decision-making in companies listed on the Indonesia Stock Exchange. Also, that the relevance of accounting information influence on decision-making in companies listed on the Indonesia Stock Exchange. Direct relevance of accounting information contributes influence on investment decisions on public companies in the Indonesia Stock Exchange. These results indicate that the accounting information used in making investment decisions. It can be concluded that the accuracy of financial statements does not affect the decision-making in companies listed on the Indonesia Stock Exchange. This shows that there are still a lot of investors who have not been able to catch the signal of reliability presented by the company, so as consequence transparency consequence, companies should be able to present the annual report is more complete and faster so that the information can be immediately responded by investor.

**Keywords:** Accounting Information, Faithful Representation, Investment Decision

## **Introduction**

Users of financial statements have interests and needs are different. Because of the different interests, a provider of financial statements face a trade-off between relevance and reliability as the qualitative characteristics of financial reporting information content (Qizam, 2010). In the Framework for the Preparation and Presentation of Financial Statements, the Indonesian Accountants Association (2012) stated that the purpose of financial reporting is to provide information that is useful in making economic decisions. To be useful, financial statements need to be characterized as quality financial statements. Characteristics of the information can be viewed as a hierarchy of quality. This is important, considering that Indonesia is a country that is deemed weak in protecting minority shareholders as the implications of the application of civil law (Subekti, 2012). One of the characters states that apply the civil law is the protection of foreign investors in the capital market is weak (Hung, 2000). The impact of the application

of civil law in the application of accounting is the unfairness to minority shareholders. This can be evidenced by the cases in Indonesia such as PT. Bank Century, which channelled most of the credit to his own business group (Miharjo, 2009).

Johnson (2005) states the relevance and reliability are the two main qualities that make accounting information to be useful in decision making. Relevance is a key element of the quality of accounting information. The relevance of the measured values of the strength of the association's financial statement figures with stock prices. Low relevance of accounting information cannot be used as the basis for economic decision-making by investors, potential investors, and other parties concerned because it shows that the low quality of financial reports (Dontoh et al., 2004). The relevance of accounting information in decision situations using accounting information as information that is important.

In recent years, the value relevance of accounting information had decreased (Darsono, 2013). Lako (2007) states that the decline in the value relevance of accounting information on the manufacturing company 2.1 percent till down about 8.5 percent. The results of the study in Indonesia showed the direction inconsistent. Sari (2004) reported a decline in the value relevance of accounting information on the book value of equity and net income, but Suwardi (2005) find evidence that the value relevance of accounting information from the book value of equity and net income increases. Fluctuations in the value relevance of accounting information were detected also by Lako (2007). His research suggests that there is a factor that is often regarded as a trigger to low relevance of accounting information in relation to the response in the capital market. Factor in question is the increasing number of non-accounting information in the form of disclosure by the company as part of the transparency and application of corporate governance. This non-accounting information is complementary as well as replacement of accounting information.

Another factor which also reduces the value relevance of accounting information stated by Darsono (2013) which states that the asymmetry of information can result in a number of financial positions are often too low so it does not describe the actual condition. As a result, the use of market value as an alternative to the historical value began to grow, especially in some European countries are starting to use fair value accounting. The use of this market value are to overcome the lack of relevance of accounting information but the use of fair value accounting will lead to earnings and equity becomes more volatile. If the relevant information is delivered in an amount not to be believed, then the information will not be helpful. Several studies have investigated how the value relevance of accounting information influences on investment decisions. Research Fazzari, Hubbard, and Petersen (2000), which examines the relationship of investment and accounting variables, there is evidence of a shift in capital markets. Another study showed that the accounting system provides additional information on investment opportunities in making investment decisions made by Morck, Shleifer, and Vishny (1990), Blanchard, Rhee and Summers (1993), Alti (2003). The results showed that the accounting variables provide information about investment opportunities outside of market information. Although the usefulness of financial information requires quality, research results show that turns financial information or accounting information is not always quality. These differences are important things that need to be studied further.

In addition to relevancy, reliabilities also need to be considered in the delivery of information to users. However, in practice, the relevance and reliability may not be displayed together in a maximum of object information in financial reporting, Qizam (2010). Thus, allowing the optimal condition is that at any given time only one of the characteristics of relevance or reliability may be more emphasized at the expense of other characteristics. His research states that if only emphasizes the reliability in measurement, recognition and presentation of accounting data, implications for the level of usefulness of financial statements because of diminishing financial statements become irrelevant. As a result, there will be financial

information that appears on the media other than the financial statements produced accountant. Conversely, if only emphasizes the relevance of the measurement, recognition and presentation of accounting data, users of financial statements no longer believe in the information submitted for the measurement, recognition and presentation of accounting data is not verifiable because it contains biased and inaccurate in symbolization posts in financial statements. As a result, the financial statements also face constraints usefulness for the user. Similar delivered by Suwardjono (2005) which also states that when the provider intends explores the relevance of financial statements, the reliability will be sacrificed and vice versa. Accounting largely bases itself on the historical value, for example in measuring assets, is one example of how the value relevance of accounting expense to improve reliability.

Reliability describes the ability of information to give confidence that the information is correct and valid. Reliability of information relies on the accuracy of financial statements. The accuracy of financial statements shows the compatibility between the measuring and representation as the physical condition, financial condition and economic activities of business entities (Suwardjono, 2005). Chief Executive of the Capital Market Supervisory Board Member of the Commissioner of Financial Services Authority (2010) stated that the regulator through BaPePam No. VIII.G.7 requires issuers to publish detailed information. This is done as a safeguard against investors on investment decisions. Because it affects the performance of the issuer, then the issuer must disclose the intact condition of the company. Presentation of the financial statements are not reliable can lead investors no longer make accounting information as a basis for decision making. Some cases regarding the financial statement presentation inaccuracy occurs in the case of PT Kaltim Prima Coal (KPC), which is one of the coal mining company in addition to PT Bumi Resources Tbk and PT Arutmin Indonesia, which does not reliably in the sales presentation to minimize taxes.

All issues relating to the accounting information that occur at this time give the big question for legislators, standard setters, accounting practitioners and other users of accounting information regarding the usefulness of accounting information as presented in the financial statements. These conditions provide a challenge whether we need a reform of accounting standards; add rules, or what can be done to create a more reliable accounting information in order to meet user needs. Observing the challenges faced, Miharjo (2013) warned, for Indonesia's important to implement a globally recognized standards, especially in the context of investment. After a investment climate was conducive in the country, investors usually always ask financial standards are adhered to, so that they can perform accurate global comparisons. Bushman and Smith (2001) stated that the financial information is essential for the efficiency of capital allocation. High quality of accounting information which will improve efficiency by providing useful information that allows managers to identify value creation opportunities with minimal error rate.

Specifically, the theory states that the increase in financial transparency has the potential to reduce the problem of investment and several studies support this prediction (Biddle and Hilary, 2006; Hope and Thomas, 2008; McNichols and Stubben, 2008; Biddle et al., 2009). Hope and Thomas (2008) examines the influence of accounting in the use of accounting information in making investment decisions. Chen et al. (2011) compared the use of accounting information systems between developed countries and developing countries. The results showed that the use of accounting systems in developing countries, expressed a lesser role. Nevertheless, the extent to which these findings apply to public companies, not further described. Ball, Kothari and Robin (2000) argued that the role of accounting information is more limited in an environment with characteristics of low investor protection and concentrated ownership structure. However, Hope et al. (2010) argues that the lack of alternative sources of information available, it would make the accounting information to be very useful.

In addition to accounting information as a basis for decision making, investors also use other information in determining investment decisions. As a commitment of funds, investors should be able to determine the right investments, particularly estimate the intrinsic value of the investment to compare the estimates to the prevailing market price. For that need was to be tested how the response of investors to information. In an efficient market, the information responded quickly, meaning that market prices reflect information or no relevant information is overlooked market that does not delay the decision-making reaction resulting in delay their stock prices.

### Method

The unit of analysis of this research is manufacturing companies listed in Indonesia Stock Exchange. The population in this research is manufacturing companies listed in Indonesia Stock Exchange in 2008 through 2012. The target population of this research into data determined as follows:

1. Manufacturing companies are already listed on the Indonesia Stock Exchange in 2008.
2. The company announced financial statements in a row from 2008 to 2012.

Based on the determination of the target population of companies manufacturing composed of three sectors, namely chemical and basic industry sectors, the various sectors of industry, and the consumer goods industry sector gained as many as 82 companies. So the number of observations in this study was 410 observations.

### Multiple Regression Analysis

The analytical method used in this research is multiple linear regression analysis. Multiple linear regressions are a tool used to measure the effect of more than one predictor variable (independent variable) on the dependent variable. The impact of the use of regression analysis is to decide whether the rise and decline in the dependent variable (Investment Decision) can be done through raising and lowering state independent variables (information value relevance, accuracy presentation, corporate actions).

Formulation multiple regression analysis was as follows:

$$D_{i,t} = a_t + b_{1,t} AQ_{i,t} + b_{2,t} KPI_{i,t} + e_{i,t}$$

Where:

$D_{i,t}$	The average delay is based on the stock price of each company regressed
stock	
	returns and stock returns do four lag
$a_t$	Constants
$b_{1,t}$	Variable coefficient to-i
$AQ_{i,t}$	Quality accrual
$b_{2,t}KPI_{i,t}$	Variable faithful representation
$e_{i,t}$	residual error

### Findings

#### Research Result

Descriptive analyses were performed on data derived from the annual reports that reveal both financial and non-financial.

**Relevance of Accounting Information**

Measurement of the value relevance of accounting information using the model developed by Kothari (2005) with a total accrual is calculated by calculating Whelan and McNamara (2004). Total accrual obtained from the difference between the net profit before exceptional items and cash flow from operating activities. The higher the value relevance of information, showed that accounting earnings closer economic profit. This means that the information conveyed by the relevant company.

**Faithful Representation**

Faithful representation (the accuracy of financial statements) is very important because it shows that the figures and explained in the financial statements represent what actually exists and happens. The accuracy of financial statements may include (Beest et al.,2009):

**1. Verifiability**

Verifiability is the ability to provide high confidence information to the user, including the form of information about the assumptions and estimates used in the annual report. Overall the company has provided specific information regarding the estimates used, but only a few companies that deliver detailed and comprehensive arguments regarding the selection of such estimates.

**2. Verification**

Verification states that financial information will have this level of usefulness and reliability of financial data when verifiable. Verification assessment conducted by the company reasons determining the choice of accounting principles and their election argument, the clearer presentation of determination principle to the implications of its implementation , verification will be better assessed. Level explanation of the choice of accounting principles in the period 2008 to 2012 annual reports of companies manufacturing increased, largely been explained in detail the reasons and consequences of the selection of accounting principles. Along with the awareness of the company to the accuracy of financial statements, some companies also delivered information and an explanation on changes in principle in a comprehensive manner.

**3. Neutrality**

Neutrality shows impartiality to certain groups. Measurements about the neutrality of views based on information about events in the company, including incident based on the strategy of the company. The information presented is information about the company's strategy. Most companies deliver information on corporate strategy, both general and specific, but tend to be a bit of conveying information about the company's strategy, the events that are positive and negative.

**4. Free from material error**

Free from material error meant that there was no abuse of a grain of accounting information. Measurement error free (free from material error) that is used is the auditor's opinion. Reasonable Opinion shows that the company has presented financial statements in accordance with generally acceptable accounting principles (GAAP) and are free from material error. It appears that the whole enterprise was declared free from mistakes and there are some which also presents information on the company's internal control. The number of companies who also delivered an explanation of the financial and internal control each year increased. This shows that the financial statements be delivered reliably.

**5. Completeness**

Completeness is intended that the information presented is complete both financial and non-financial and management. Supervision of the company's operations can periodically monitored by the bourse authority and strategic oversight is done through

various regulations that apply to capital market players. Information on the financial statements is thought to increase investor confidence in the Indonesian capital market so as to create a sense of security is higher. The information presented is supported information on corporate governance consists of information regarding the description of the implementation of the tasks of the board of directors, meeting frequency and attendance of commissioners, the description of the implementation of the duties of the audit committee, meeting frequency and attendance audit committee, a description of the implementation of the secretarial company, description of the implementation of the task force monitoring intern, description availability of access to information, and descriptions of the implementation of corporate governance. The number of manufacturing companies that provide information about the corporate governance shows increased quantities which originally submitted the percentage of full information included in the category enough (50.5%) or only partially supplied by the company to 62.2%.

### **Investment Decision**

In 2008 there were delays investment decisions made by investors, even the overall stock price index in the year 2008 experienced the lowest level that is equal to 1100. In 2009 the investment decisions made by investors reacted fast enough. This is not out of the company's fundamentals. Nevertheless, in 2010, investors turned cautious in making investment decisions because this year, capital market conditions had dropped by 18.7% in the second quarter.

The development occurred again in 2011, where the information appears to respond quickly the information in making investment decisions. One factor in the rise in response to a decision to invest is their good performance in 2010. The company's good performance gives confidence to investors to make investment. In addition, in 2011 started the implementation of IFRS where the company began presenting information based on fair value. Overall increase in investment in 2011 increased by 3% compared with 2010.

In 2012, the market began to be careful because of various factors, including external factors such as sentiment problems overseas and global financial market uncertainty. Therefore, although the company has presented the information well, but investors are not necessarily immediately make investment decisions.

### **Results of Multiple Regression Analysis**

Analysis of data using regression analysis model, the results of the regression analysis are as follows:

$$Y = 0,223 - 0,014X_1 + 0,92X_2 + \varepsilon$$

### **Correlation Coefficient**

The correlation coefficient indicates the extent to which the relationship between independent variables and the dependent variable. The results of correlation analysis as follows:

Table 1: Correlation Coefficient

Model	The value relevance of accounting information	The accuracy of financial statement
Correlations	1,000	-0,361
The value relevance of accounting information	-0,361	1,000
The accuracy of financial statement		
Covariances	4,61E-05	0,000
The value relevance of accounting information	0,000	0,19
The accuracy of financial statement		

The above table shows that the correlation coefficient value relevance of accounting information obtained at 1.000. This figure is included in the interval 0.00 to 0.199, so it can be said that the relationship between the value relevance of accounting information in investment decisions on companies listed in the Indonesia Stock Exchange is a relationship very high. The correlation coefficient for the accuracy of financial statements was -0.361. This figure is not included in the interval from 0.00 to 0.199, so it can be said that there is no relationship between the accuracy of financial statements with investment decisions on companies listed in Indonesia Stock Exchange.

Results of regression summary are as follows:

Table 2: Regression Result

Description	Investment Decision Dependent Variable (Di,t)		
	Unstandardized Coefficient	Standardized Coefficient	Significancy
Independent Variable			
The value relevance of accounting	-0,014	-0,229	0,49
The accuracy of financial statement	0,092	0,078	0,0511
Adjusted R Square			0,077
F			3,246
F significancy test			0,026

The test results showed that the adjusted R -square of 0.077 means that the variable accounting information relevance and accuracy of financial statements are able to explain the variation of 7.7 % investment decisions . If seen its F test that showed a significance level of 0.026, the model is suitable for use. Variable accounting information relevance and accuracy of financial statements together (simultaneously) effect on investment decisions at the 0.05 level. Thus the first hypothesis which states that the accounting information relevance and accuracy of financial statements, simultaneously affect the investment decision is received.

Results of regression statistics showed that the adjusted R-square of 0.077, or 7.7%, F value of 3.246, and the value of F significance of 0.026. This means that the relevance of accounting information and the accuracy of financial statements together influence the investment decision. The results adjusted R-square of 0.077, or 7.7% indicates that the amount of

investment decision can be explained jointly by the variable accounting information relevance and accuracy of financial statements, amounted to 7.7%, while the remaining 92.3% is explained by external factors or other variables. Another factor may be the company's fundamentals for example, the company's capital structure, ownership concentration, the voluntary disclosure index, and external factors.

If you pay attention to adjusted R-square of 7.7% is relatively low, however, because the purpose of this research is explanatory is to explain causal relationships between variables and does not intend to predict investment decisions, the coefficient is lower in this model can still be used to explain the relationship between the study variables.

## **Discussion**

### **Effect of Value Relevance of Accounting Information to the Investment Decision**

The result is consistent with the theory that hypothesized that the greater the relevance of accounting information is getting smaller delay investment decisions. The results of this study support the research Callen et al (2013), Biddle (2009), Almilia and Sulistyowati (2007), and Anggono (2002), which examines the value relevance to establish benefit accounting values of the equity valuation of the company. Their results stated that the accounting information affects investment decisions, in this case the purchase of shares. Callen et al (2013) reported accounting information determines whether or not the delay occurs in decision-making.

### **Effect of Faithful Representation of the Investment Decision**

This result is not consistent with the theory that hypothesized that the greater the accuracy of the higher presentation of accounting information delays the investment decisions. Moreover, these results also support the research Qizam (2010) which states that there is a trade-off between relevance and reliability. One must be sacrificed, as the company maintains the relevance of the reliability. These results are not in line with the perspective of information theory on usability decisions (Scott, 2003). Council standard setter (IAI) need to make arrangements so that the information generated in accordance with the needs so that the information is useful in decision making. In addition, the Financial Services Authority (FSA) should also determine what information is to be submitted within the framework of the protection of investors in making investment decisions so that the capital market, which is already efficient in weak form, can escalate into a semi strong.

The implication that allows investors pay attention to the signals given by the issuer company through the publication of the company's financial information. Investors should be cautious in capturing the signal information received that is not wrong in making investment decisions. On the other hand this study also provides insight to the company as a provider of information to consider the trade-off between relevance and reliability. The results of this study indicate that investor's would pick relevance, but nevertheless reliability may be maintained by the disclosure that does not misinterpretation of accounting numbers.

## **Conclusion**

Based on the formulation of the problem, on the basis of the development of hypotheses and theories related, and based on the analysis that has been discussed and presented in the previous chapters, so in this chapter we conclude the study as follows:

1. Based on test results, it can be concluded that the relevance of accounting information and the accuracy of financial statements influence on decision-making in companies listed on the Indonesia Stock Exchange.
2. Based on test results, it can be concluded that the relevance of accounting information influence on decision-making in companies listed on the Indonesia Stock Exchange. Direct relevance of accounting information contributes influence on investment

decisions on public companies in the Indonesia Stock Exchange. These results indicate that the accounting information used in making investment decisions.

3. Based on the test results, it can be concluded that the accuracy of financial statements does not affect the decision-making in companies listed on the Indonesia Stock Exchange. This shows that there are still a lot of investors who have not been able to catch the signal of reliability presented by the company, so as consequence transparency consequence, companies should be able to present the annual report is more complete and faster so that the information can be immediately responded by investor.

### **Suggestion**

Referring to the results of research that has been obtained, and then put forward some suggestions of research as follows:

1. For future studies, to consider more detailed measurements of the quality of financial reporting, so that data presented is able to capture accounting information more deeply and comprehensively.
2. Companies need to deliver quality information including accurate, timely, and transparent so that there is no misinterpretation and to avoid any errors in making investment decisions.
3. In addition, the company should deliver the information as often as possible, for example in the form of bulletins, so that more relevant information and does not depend on the annual report only.
4. Investors should be more critical in interpreting the accounting numbers and pay attention to information both financial and non-financial presented in the annual report in order to do the right investment decisions.
5. For the regulator, should be more pro-active creation of conditions more conducive business situations by applying IFRS as a whole in order to more relevant information and also provides sanctions against issuers hide information.
6. For a standard board, need to be lobbying to regulators concerning the application of financial reporting standards such as the filing of the application of an integrated corporate reporting that describes the company's activities as a whole so that the users of accounting information has the same perception and does not give rise to the beneficiary or adversely affected.

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# Environment Uncertainty and Management Accounting Information System in the Indonesian Commercial Private Bank: Empirical Analysis

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## Abstract

**Purpose:** The paper aims to investigate the impact of environment uncertainty toward management accounting information system in Indonesian commercial private bank.

**Design/methodology/approach:** survey is carried out on 33 Indonesian private commercial bank. through the use of a structured questionnaire.

**Findings:** The result of this research indicate that internal environment and external environment were found to have a positive significant influence towards management accounting information system.

**Research limitations/implications:** The paper focuses on the commercial private bank in Indonesian.

**Practical implications:** The results provide insights to the Indonesian Private Bank and other organizations of similar structures of how the organization is expected to be able to improve the ability of organizational personnel through education and training to improve the ability of personnel to analyze the environment so that the application of management accounting information can be optimized.

**Originality/value:** This paper is perhaps one of the first to investigate environment uncertainty in the private bank using a comprehensive set of indicators in investigating influences on Management accounting information system

**Keywords:** Environment Uncertainty, Management Accounting Information System, Private Bank, Indonesia

## Introduction

Environment factors can affect the application and design of management accounting information system (Ajibolade et al. 2010). According to Vijian (2005) changes of technology, competitiveness, and customer demand are some of the factors that affected the environment of company. In the environment full of competitiveness and global operation, the sustainable betterment is needed to survive (Chapman et al, 2007:171).

Ashley Wood (2012) stated the firm competitiveness between banks in Indonesian causes the increasing of competitiveness themselves. According to Chapman (2007:173) the environment changes full with competitiveness can be attached with strategic, organization design and technology which are related to non financial aspect. Joni Swastanto (2011) stated that there are vulnerable points in banking operations, one of which is information technology. The same thing was revealed by Josh Lukuhay (2011) the rampant burglary in the banking industry because of the weak technology used.

Abernethy and Guthrie (1994) stated that the application of management system accounting information on company is affected by uncertainty environment, and so, it is applied as a factor that is affecting management strategy, system information, and accounting (Mangaliso 1995, Chenhal and Morris 1986, in Ashill and David Jobber, 2005)

## **Literature Review**

### **1. Uncertainty Environment**

The uncertainty environment according to Conrat (1957) in Miliken (2001) is an inability to understand or predict the future consequences of decision.

Environment attaches with uncertainty, the source of uncertainty is external environment of company as unexpected thing (Miliken, 2001) and that are supplier, competitive, government, distributor and customer. This statement is also similar to Khan and Jain (2007:23) that the adds of uncertainty are probability of customer movement, rivalry acts, technology development and change in economy or politic environment. Azhar zsusanto (2008:29) stated that environment still depends on how well the perceptive of social aspect, economy changes, technology, politic or rules, and etc.

### **2. Management Accounting Information System**

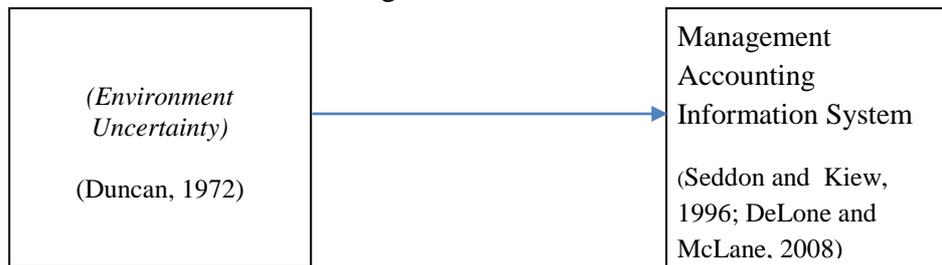
Management Accounting Information System (jeffrey and Lonnie, 2008:39) is application of system information provides report which is management oriented with same format. Management accounting information system is integrated from various harmonize components to process the data info information (Azhar Susanto, 2008:84). The objective from the management accounting system is to reveal significant relation that will reduce the uncertainty in organization decision making by increasing the use of organization resources (Nichols, 1990:7). According to Nichols, to achieve the objective, the decisions are needed to guide the business. Those decisions include knowledge about quality and variety of information that is needed in organization because the future of organization is decided by the information that is given to decision maker. to Understand and measure the succes of applyng management accounting information system can be use the D&M model which content are six dimension of success factor (DeLone and McLane 2008).

### **3. Uncertainty environment and Management Accounting Information System**

Ajibolade et al.(2010) stated that environment factor affects toward application and design of management accounting information system. Similar to Vijian (2015) the quality of applying management accounting is in the organization capability to adapt with environmental changes of company both internal dan external. This is also stated by Azhar Susanto (2008:29) that environment can powerfully affect the system. According to Lucey (2003:180) that system must adapt to environmeental changes. The similar statement from khandwalle (1972) in Vijian (2005) the uncertainty environment affects toward management accounting information system.

## Theoretical Framework and Hypothesis Development

Figure 1: Theoretical Framework



Hypothesis in this research will explain as follows:

The Environmental Uncertainty affects Management Accounting Information System

### Method

Method used in this research is explanatory research. Simple analysis linier regression used to resolved the problem research. This study was carried out on 33 Indonesian private commercial banks through the use of a structured questionnaire.

### Findings

Simple analysis linier regression is used to resolved the problem research.

#### 1. Multicollinearity Test

Table 1: Multicollinearity Test

Model	Collinearity statistics	
	Tolerance	VIF
Constant		
X	1.000	1.000

The table above, data achieved that tolerance value from every variables independent more than 0.1 and VIF value from every variables is not more than 10, and so it can be concluded there is no multicollinearity between independent changer in this reasearch.

## 2. Autocorrelation Test

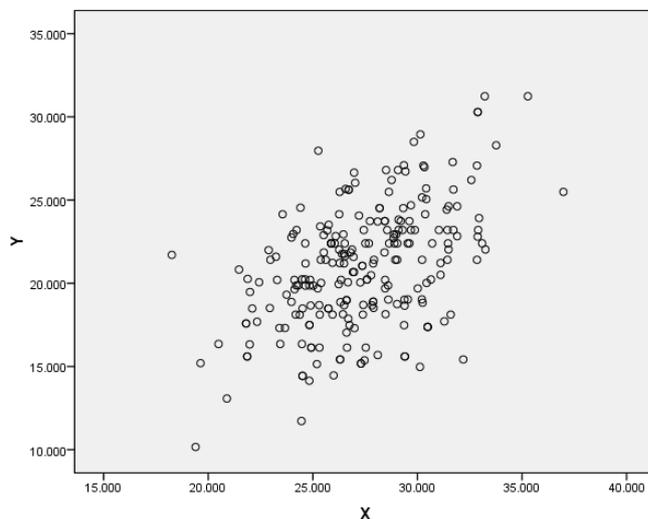
Table 2: Autocorrelation Test

Model	R	R Square	Adjusted R square	Durbin Watson
1	.489 <sup>a</sup>	.239	.236	1.727

The table above, data achieved that value DW -  $1.727 < + 2$  so it can be concluded there is no autocorrelation.

## 3. Heteroskedastisity Test

Grafik 1. Heteroskedastisity Test



The chart above, it can be seen that plot between regression adjusted predicted value with regression studentized residual spread randomly. It shows that there is no heteroskedasticity occurs, or the data is homogen variants.

## 4. Hypothesis test

Table 3: Hypthesis Test

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	733.480	1	733.480	72.964	.000 <sup>a</sup>
Residual	2332.198	232	10.053		
Total	3065.678	233			

- a. Predictors : (constant), X
- b. Dependend Variable : Y

The table above, it achieved that significance value data  $0.000 < 0.05$  and so it can be concluded that  $H_0$  is not accepted or in other word that the uncertainty environment is influencing towards management accounting of system information

## **Discussion and Conclusion**

### **1. Environment Uncertainty**

Based on the responder towards the environment uncertainty to the National Private Bank of Foreign Exchange (BSND) in Indonesia is seemingly on high-moderate uncertainty. This condition is marked along with external factor that is affecting less, similar, but it keeps changing such as, the change of technology, customer social economy, and politic factor. The result shows that the environment uncertainty will later on influence the implementation of management accounting information system, because the system is a principle of organization (banking) in executing their activities

#### **1.1 Internal environment Component Dimension**

Internal environment banking is in condition of a high level of uncertainty, which is formed by the existence of an organization member that does not have a requirement skill in the banking expertise area such as; the standard of banking officer in term of an appearance, sanitation and tidiness of workplace, knowledge about banking product and service given, communication skill with customer, and also capability of operating banking technology such as ATM, and E banking, because, if the human resource does not expertise in technology, it will be squander for the banking because the banking technology cost a fortune, It can also be caused by less survey and study of the technology which supports the system information. Technology is developing fast as the era continues to grow, banking must predict and adapt as fast as possible towards technology development because customer will only look for bank with complete services and easy transaction. Banking must have system technology information in order to give the best service with full guaranteed of protection.

#### **1.2 EXTERNAL ENVIRONMENT COMPONENT DIMENSION**

According to customer respond about “customer and supplier” mean scores in moderate high uncertainty which is shown the increasing of customer towards National Private Bank of Foreign Exchange (BSND) is uncertain. This is caused by the customer trust towards bank, because bank is an industry that walk with customer trust and without customer trust, the bank will not be developing. Customer will trust a bank that is offering appealing product and service, easy and safety in money saving and daily transaction, and better facility.

Rivalry instrumental shows that new banks appearance are the cause of customer trust towards national private bank of foreign exchange at the high uncertainty condition, because the effort of banks giving the best service are causing customer uncertainty, therefore customer will search a bank that can be trusted and eased customer activity.

Social politic indicates that government takes charge of banking activity with mean score in moderate high uncertainty condition, and adamant rule obeyed by National Private Bank of Foreign Exchange (BSND) could change, so bank must adapt to new adamant rule. For example, Indonesia Bank (BI) is obligated to give 20% of the total credit to UMKM sector. Jusuf Wibisana (2013) stated that there are three big obstacles which will block the target of banking growth: the regulation system as the first obstacles, interbank rivalry as the second obstacles, and human resources as the last obstacles.

Moreover, “technology” indicates the category of the high uncertainty level due to the rapid development of technology that is causing the highest-uncertainty level. As the era continues to grow, hacker is becoming sophisticated to hack a bank. Bureau of Research Info Bank (birI),

act of hacking a bank is very different than the bank robbers before crisis. Bank robbers are done by bank owner with fiction credit and mark-up credit as a motive. Nowadays, bank hacking is done by bank staffs themselves placed in branch.

Based on phenomenon, Joni Swastanto (2011) stated there is a crucial point on banking operational activity and one of it is information technology. Josh Lukuhay also (2011) stated the rampant of hacking in banking industry is due to unsophisticated use of technology.

## **2. The Implementation of Management Accounting Information System**

National Private Bank of Foreign Exchange (BSND) in Indonesia is on standard category. The result indicates the implementation management accounting information system is not optimal because there are weaknesses in the national private bank.

Based on the responder towards variable of the implementation management accounting information system, it can be known as the statement which has the lowest rate indicated with “Information system that Sir/Ma’am own is at risk” statement. This research also indicates the information system of National Private Bank of Foreign Exchange Indonesia has a loop hole, such as the incident of bank customer as a victim of ATM bank fraud is the indication of sophisticated system owned by bank still can be hacked by criminal. Joni Swastanto (2011) stated that one of the loop hole in the banking operational activity is in information technology. Anwar Nasution (2008) stated that the government could not control well the accounting system performance of City Bank cases about blurring transaction and uncorrect registration for an ammount of transfer slip (Ichsannudin, 2011). also Bank Mega cases which had done a forgery deposits (Darmin Nasution, 2012). It means that it still has loopholes in banking security system as follows:

1. The loophole of banking procedure cause by weak indentification and validation for customer
  - b) Physical card loophole, most of the ATM card used in every bank is magnetic stripe card without smart card
  - c) Application loophole
  - d) Mental loophole
  - e) Regulation and law enforcement loophole

## **3. ANALYSIS ENVIRONMENT UNCERTAINTY TOWARDS MANAGEMENT ACCOUNTING INFORMATION SYSTEM**

Simple analysis linier regression is used to resolve the problem research related with Influence of Environment Uncertainty towards Management Accounting Information System with sample reasearch 33 National Private Bank of Foreign Exchange in Indonesia

From the histogram above, we can conclude data in bell form is indicator of normal distribution. On the other hand the picture Normal P-p plot is achieved that the data spreads close to diagonal line and follows diagonal line. From both of the picture above, it can be concluded that data is normally distributed.

### **Conclusion**

According to phenomenon, problem statement, hypothesis and research result, the writers deduction is as follows:

1. There is Uncertainty Environment towards Management Accounting Information System. The problem occurence in management accounting information system is caused by :
  1. Technology has weakness and unsophisticated.
  2. Individual weaknesses to not get involved in activity that ethically reducing profesinalism in the job.

3. Less comprehension for terminology (aim, traits, sense, language, and terminology) which is used by organization.
2. There is Uncertainty Environment towards Management Accounting Information System. The Problem of Applying Management Accounting Information as follows :
  1. Some human resource are not expert at using technology.
  2. Information system is still at risk.
  3. Technology used still has loopholes.

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# The Role of Entrepreneurial Orientation and Adaptive Capability to Performance of SME Food & Beverages

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## Abstract

**Purpose:** The study aims to analyze and provide empirical evidence about the effect of entrepreneurial orientation and adaptive capability toward performance. The main problem in this research is how to improve the performance of SME Food & Beverages.

**Design/methodology/approach:** Using a sample of 85 owner and managers SME Food & Beverages in Bandung City, Indonesia with data analysis Structural Equation Model-based Partial Least Squares (SEM-PLS) using SmartPLS 3.0.

**Findings:** The findings that entrepreneurial orientation has a positive impact on adaptive capability, and furthermore adaptive capability has a positive impact on performance. Entrepreneurial orientation has no effect on performance but has influence indirectly with the adaptive capability

**Research limitations/implications:** The limitation of the study is only looked at for SME Food & Beverages, and also it was conducted in Bandung, therefore, it cannot be generalized to other regions and diverse industry categories.

**Practical implications:** The findings give suggestions to the owner and manager continue to identify information about market preferences at all times, being more proactive to approach other markets, setting up for new product development, realizing new techniques in business enterprises so it is supposed to develop adaptive capacity capable of reinforcing the ability to perceive, capture and transform opportunities with extended learning.

**Originality/value:** The research study focuses on fill the research gap regarding the role of adaptive capability in mediating the relationship between entrepreneurial orientation to performance due to the limited research on these mediating factors especially in the Food and Beverages SME sector.

**Keywords:** Entrepreneurial Orientation, Adaptive Capability, Performance

## Introduction

SMEs need to implement the development of effective business strategies to maintain business survival (Thornhill & Amit, 2003) because their survival is still low (Lechner & Gudmundsson, 2014). In addition, it also faces SMEs with high competition intensity and a fast product lifecycle, while the Food & Beverages SME sector is an important sector for economic growth in Indonesia (Hartarto, 2018). The author has conducted a pre-survey of several SMEs regarding marketing and financial performance and most them received a low performance, one of which was due to low product performance. This impacts the uncertainty of business operations, therefore, a firm needs to search for new opportunities to maintain its performance (Wiklund & Shepherd, 2005). Some researchers have proposed entrepreneurial orientations (e.g., Eshima & Anderson, 2017; Wiklund & Shepherd, 2005) and improved adaptability (for example, Biedenbach & Müller, 2012; Zhu, Su, & Shou, 2017) in improving business

performance. But little attention from researchers on the role of entrepreneurial orientation and adaptive capability to the performance of Food & Beverages SMEs.

Entrepreneurial orientation (EO) as innovative and proactive entrepreneurial behavior, the intention to pursue business opportunities and risk taking to try new products and markets (Anderson, Kreiser, Kuratko, Hornsby, & Eshima, 2015; Covin & Slevin, 1991). There are several important elements in entrepreneurial orientation, referring to Lumpkin & Dess (2001) including proactive, innovation, autonomy, risk-taking and competitive aggressiveness. Proactive is seeking opportunities, foresight by introducing new products or services when competing and being able to anticipate future market demand. Innovation is readiness in terms of creativity and experimentation in creating new goods or services and applying technology and R&D in the development process. Autonomy refers to independent actions carried out by a person or group and aims to create a business vision or concept and apply it to achieve their goals. Risk-taking refers to the tendency of companies to take risky steps in business activities such as entering new and unknown markets, using company resources or borrowing large resources from other parties (such as finance and technology) with uncertain results. Competitive aggressiveness reflects the company's sincerity to surpass competitors in the industry, characterized by aggressive actions and strong responses to activities undertaken by competitors. Rapid environmental changes require the characteristics of entrepreneurial orientation (such as proactive, risk-taking and innovation) to improve adaptability. EO has an important role in corporate culture, operational processes, learning and increased adaptability (Wiklund, 1999), therefore EO is important for managerial transformation in the face of a rapidly changing environment (Jiao, Wei, & Cui, 2010). In addition, companies that have a high EO can take advantage of new opportunities that improve their survival and performance (Keh, Nguyen, & Ng, 2007; Li, Huang, & Tsai, 2009).

Adaptive capability refers to the company's capacity to sense and respond to a changing business environment with fast and flexible efforts (Ma, Yao, & Xi, 2009). Adaptive capability is an important key from resource-based view (Zhou & Li, 2010) as well as emphasizes the importance of adapting to environmental changes (such as markets, technology, politics, etc.) so that the firm should continue operating and adapt to the business environment. Under the opinion of Biedenbach & Müller (2012) and Zhu, Su, & Shou (2017) that adaptive capability positively improve performance. Adaptive capacity enhancement for companies depends on changes in estimates on the product or market, and the company's capacity to meet these estimates with the resources they have (Ma et al., 2009). The combination of new resources provides an opportunity to apply the same way to adjust market changes, so companies identify ways to respond to change and gain new opportunities specific to value creation (Eshima & Anderson, 2017). The adaptive capability is essential in both unstable and moderate business environment, where transitions take place are still predictable (Eisenhardt & Martin, 2000). One of RBV main propositions that firms are valuable, unique, have social complexes and hard to replicate (Hunt & Morgan, 1995), coming from a competitive advantage and profit above normal (Barney, 1991). In the unstable market, adaptive capabilities rely on the latest information, cross-functional relationships and comprehensive connection between those engaged throughout the process and with external markets (Eisenhardt & Martin, 2000). Behavioral information and diffusion are the main of strategic orientation activities. Entrepreneurial orientation makes the responsiveness resource by giving superior information, diminishing uncertainty and enhancing proper response to market transitions.

This study aims to fill the research gap regarding the role of adaptive capability in mediating the relationship between entrepreneurial orientation to performance due to the limited research on these mediating factors, especially in the Food and Beverages SME sector in Bandung. In addition, this research seeks solutions from research gaps regarding entrepreneurial orientation towards growth and performance, such as Rauch, Wiklund, Lumpkin, & Frese (2009) which

found that entrepreneurial orientation improve performance, but based on George's opinion (2011) states that EO does not affect to performance.

## **Literature Review**

### ***Entrepreneurial Orientation***

Entrepreneurial orientation describes methods and operations in entrepreneurial actions and rules, therefore, it is known as an entrepreneurial strategy process employed by managers to keep objectives and set up excellence (Rauch et al., 2009). Newly established firms tend to have restricted resources, so they are aware in determining the strategic orientation for the company (Li et al., 2009). An entrepreneurial perspective as a process based on corporate culture rather than as an event (Hult, Snow, & Kandemir, 2003) by forming the value of resources for the utilization of market opportunities. This process consists of a set of activities to identify opportunities, create strategies, estimate resources, obtain these resources, and manage and achieve business results (Morris, Schindehutte, & LaForge, 2003). Based on Lumpkin & Dess (2001) companies that are proactive in market opportunities can form competitive advantages because they have initiatives to respond to competitors. The benefits gained such as making it easier to enter a new market, establish a brand identity, or adopt a new technology. In acting proactively, the company strives to create new products/services continuously to obtain significant growth.

In the comparison of the entrepreneurship literature, EO can be compared with corporate entrepreneurship that involves entrepreneurial activities such as self-renewal (Zahra, Jennings, & Kuratko, 1999). EO is also compared to small business orientations that involve emotional relations between owners and business (Runyan, Droge, & Swinney, 2008), while EO tends to a comprehensive corporate strategic attitude (Basso, Fayolle, & Bouchard, 2009). EO eliminates individual intentions and interests (Lumpkin & Dess, 1996), thus the EO offers a separate understanding between key entrepreneurial actors and their influence on the behavior of all members of the company (Wales, Gupta, & Mousa, 2011).

### ***Adaptive Capability***

Adaptive capability as part of a resource-based view. Related to how companies actively scan market conditions (Lockett, Wiklund, Davidsson, & Girma, 2011). Referring to Eshima & Anderson (2017) developing adaptive capabilities related to changes in product or market assumptions, and the company's capacity to fulfill these assumptions with the company's resources, therefore the transformation of company resources and a combination of new resources are related to the transition of adaptive capability. Companies that develop the capacity to identify ways to meet market changes and seek new opportunities that might support value creation (Eshima & Anderson, 2017). There are opportunities that can be utilized, even if at risk, are the main requirements in changing the EO of the company (Slevin & Covin, 1997).

In conditions of high changes in market preferences and environmental uncertainty, the company's capability to sense and respond to changes quickly and flexible as an essential ability to produce excellence for the company (Ma et al., 2009). Zaheer & Zaheer (1997) emphasizes the importance of prudence and responsiveness as the company's attention to information and the speed of capturing market signals. Thus, the company's capability in perceiving and responding to changes in a radical environment (i.e., adaptive capability) is the key to the success of a company where the level of competition, technology, and markets in the future cannot be predicted by the company (Teece et al., 1997).

This research is under Ma et al. (2009) which regards the firm's adaptive capability not in internal managerial changes such as a structure or process, but in the comprehensive view and feedback of the firm to its situation. The firm's capability to achieve and apply information

becomes significant as a set of the compound and connected organizational aspects (Zaheer & Zaheer, 1997). However, how to enhance adaptive capability for firms is an issue, specifically in developing countries (Zhou & Li, 2010) and SME due to insufficient firm resources, less current technology, and market knowledge.

According to Oktemgil & Greenley (1997) besides the macro level, the adaptive capability also plays a role at the micro-level as an adaptation to individual customers and suppliers. Adaptation is to adjust customer needs or implement certain operational processes to build and maintain relationships (Oktemgil & Greenley, 1997).

## **Theoretical Framework and Hypothesis Development**

### *EO and Adaptive Capability*

Entrepreneurial-oriented companies should rearrange their resources so they have the advantage of chances in a dynamic market. According to Jantunen (2005) explain that entrepreneurial behavior combined with the ability to reconfigure becomes an important source for the company's competitive advantage. Engelen, Kube, Schmidt, & Flatten (2014) link the views of RBV and expansion of adaptive capability by conducting research on SME in Germany, and the result that capacity enhances the link between EO and performance in a fast-changing market. Lisboa, Lages, & Skarmas (2011) research on EO with a proactive dimension, innovation and risk-taking influence performance through adaptive capabilities in the development of new products (exploitative and explorative) and the advantages of new products (speed of market entry and differentiation products).

EO turn firm resources into opportunities, such as NPD (Acikdilli & Ayhan, 2013). Firms apply EO specifically to have change agents who develop creative solutions, practices, techniques, and capabilities in adapting to a changing environment (Jiao et al., 2010). One important agent of change for companies is managers (Swuste & Arnoldy, 2003), where when changes occur they develop adaptive capabilities in the organizational process, increase resource productivity, and reconfigure resources to find current markets (Jiao et al., 2010). In other terms, change agents who have a high EO improve adaptive capabilities for the company so that when there is a market change it can be utilized as new opportunities. Therefore, EO plays a role in improving adaptive capabilities. Thus:

H1: Entrepreneurial orientation positively influence adaptive capability

### *EO and Performance*

Many researchers explain the influence of EO-Performance (Vij & Bedi, 2012). Besides direct influence, EO-Performance effects have mediating effects, such as learning orientation (Wang, 2008), knowledge creation process (Li et al., 2009), market orientation (Amin, Thursamy, Aldakhil, & Kaswuri, 2016) and marketing information (Keh et al., 2007). In addition, EO-Performance relationships are influenced by moderating effects, such as the type of strategy (Tang & Tang, 2012), family involvement (Casillas & Moreno, 2010), and social capital (Stam & Elfring, 2008). Contingency theory defines that key factors such as a strategy, structural characteristics, industry, and environment influence how EOs are configured to achieve performance (Lumpkin & Dess, 1996).

Companies that have a high EO integrate knowledge in creating new insights about market opportunities and recognize changes in innovation in related industries so they affect performance (Messersmith & Wales, 2013). Product life cycles and shorter business models impact business uncertainty and companies need to adopt EO in finding new opportunities by innovating and anticipating demand that has the potential to improve performance (Rauch et al., 2009; Wiklund & Shepherd, 2005). In addition, EO companies have a sensitivity to market changes, react quickly, outperform competitors and lead to performance, especially in small

businesses because small size can increase flexibility and innovation (Swierczek & Ha, 2003). Innovation and other EO dimensions collaborate in improving performance by absorbing decision-making styles and practices in the organization (Dess & Lumpkin, 2005). Therefore, EO positively influences performance. Thus:

H2: Entrepreneurial orientation positively influence performance

#### *Adaptive Capability and Performance*

In the RBV perspective, the factor component of adaptive capability guides the development of strategies, as a practical tool and techniques for managers that are applied to direct performance improvement (Wang & Ahmed, 2007). Clarke, O'Connor, Leavy, & Yilmaz (2015) found that companies that have the ability to adapt to the development process will gain business success. Wei & Lau (2010) explained that adaptive capability positively mediates the relationship between high-performance work system (HPWS) and performance. Zhu et al. (2017) conducted a study of 187 construction and decoration distributors in China, concluding that adaptive capability has a stronger mediating effect between business ties and performance when there is high demand uncertainty.

One of the intangible competencies of a business is the capability to learn (Teece et al., 1997). That indicated a kind of possible roles, not naturally in behavior or activity (Huber, 1991). Increased potential actions occur in well-performance to deal with unanticipated situations within the business environment (March, 1991). These conditions are not sufficient for strong adaptation without sensing capability for transition and bringing about responses (Teece, 2007). Changing the sensing environment should be distributed to make the firm adaptation. For this figure out, a further of sensing capabilities can be worked out without knowledge for representatives in the firm that is better maintained or performing on it (Huang, 2009), such as information response to environmental response. change Thus adaptive capability positively affect performance. Thus:

H3: Adaptive capability positively influence performance

#### *The Mediation Role of Adaptive Capability*

Basically, companies often face changing market preferences and lead to uncertainty about future business environment conditions, this limits the company's capacity to anticipate changes in business competition, product design, technology, and other regulations (Engelen, Schmidt, & Buchsteiner, 2015) so that the company must have adaptive capability to these changes in order to maintain growth and performance. Such as adjustment of products and services for customers that are under their preferences (Engelen et al., 2015). New strategies should be designed or programs in adjusting to new market conditions. A significant EO strengthens the company's ability to see opportunities at an early stage. Entrepreneurial oriented organizations also find opportunities through their activities. To benefit from this opportunity, they generally have to reconfigure the resource base they have. Using new processes, business models, resources, and complementary techniques are needed to take advantage of opportunities. Then, the company's ability to develop new capacities, change its resource base and reconfigure its processes and systems to achieve a combination of other valuable resources is very important to maintain competitiveness in a shifting environment (Teece et al., 1997). Then, companies with sophisticated adaptive capability capabilities are predicted to capture opportunities through integrating new resources and good processes and structures that are reflected in their performance (Jantunen, Puumalainen, Saarenketo, & Kyläheiko, 2005). Thus, we conclude that the role of adaptive capability mediates the relationship between entrepreneurial orientation and performance. Thus:

H4: Adaptive capability positively mediates the relationship between entrepreneurial orientation on performance

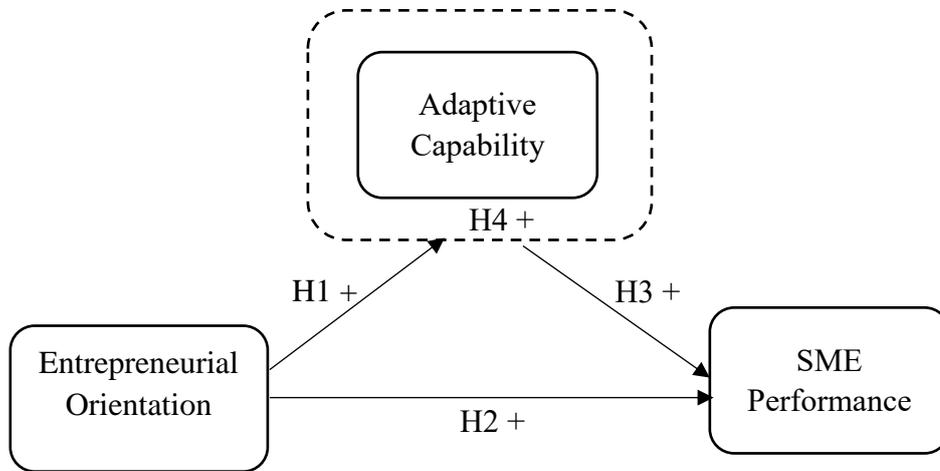


Figure 1: Theoretical Framework

## Method

### *Data Collection and Sample*

This research is an empirical study with descriptive and verification research while research type is field research. The population is SME Food and Beverages in Bandung. Sampling test in the fields due to taking the quantity of SMEs in West Java. Sample size relates to Ghazali (2011) which explains that the total of samples can be measured from parameters enlarged by 5 to 10. Because this survey adopts the total estimate of criteria measured to 17, so that needed sample in this research  $17 \times 5 = 85$ , and this investigation pick up the sample as much as 85 SME of Food and Beverages. Key respondents in this study are SME owners or managers who know the operations of the company well. Most respondents were male (68.3 percent), and the position as owner (95.3 percent), and the age of respondents mostly ranged from 31 to 50 years (77.6 percent), then the year of establishment of many businesses between 1990-2000 ( 54.12 percent).

### *Measurement*

All items for this study were 17 with details of entrepreneurial orientation variables in five question items, as much as adaptive capability variables as six items of questions, then performance variable six items of questions. It assesses all question items on a five-point Likert Scale, ranging from one (strongly disagree) to five (strongly agree).

After collect data, the data processing is carried out. It usually does this through complete and incomplete data editing separated, data coding, and data tabulation. The data that can be used for the analysis phase is the data in which the questionnaire is complete and the questions are not missed in the questionnaire. After the data goes through these stages, then the data entry is done to the computer. Data processing was carried out using the Statistical Package for the Social Science application program (SPSS version 23.0) and SmartPLS version 3.0.

Table 1: Evaluation of Convergent Validity and Reliability

Construct	Items	Loading	CR	AVE
Entrepreneurial Orientation (EO)	EO1	0.73	0.89	0.61
	EO2	0.87		
	EO3	0.70		
	EO4	0.87		
	EO5	0.75		
Adaptive Capability (AC)	AC1	0.52	0.87	0.54
	AC2	0.64		
	AC3	0.76		
	AC4	0.88		
	AC5	0.76		
	AC6	0.81		
Performance (P)	P1	0.10	0.90	0.65
	P2	0.86		
	P3	0.84		
	P4	0.84		
	P5	0.75		
	P6	0.72		

The measurement of the data analysis showed that the reliability and validity were convergent from the measurement model (Table 1). In terms of reliability, almost all constructs have composite reliability higher than 0.7. In addition, convergent validity describes the variance average extracted (AVE) for all constructs greater than 0.5, and almost all significant indicators with a factor weight of over 0.5 except for item P1 (0.10) must be eliminated. Next, we verify the discriminant validity of the measurement model through the Fornell-Larcker Criteria approach (Table 2.1), because the ratio for all constructs is smaller than the respective discriminant values of the construct, and testing discriminant validity using Heterotrait-Monotrait (HTMT) all constructs are expected to be in below 0.90 (Table 2.2).

Table 2.1: Discriminant Validity Using Fornell-Larcker Criteria

Constructs	EO	AC	P
EO	0.74		
AC	0.62	0.78	
P	0.70	0.52	0.80

Table 2.2: Discriminant Validity Using Heterotrait-Monotrait (HTMT)

Constructs	AC	EO	P
AC	-		
EO	0.69	-	
P	0.80	0.60	-

### Findings

After testing validity and reliability, we continued diagnostic collinearity with VIF which is expected to be below 5, where the highest variable predictor is 3.9 which means there is no multicollinearity. Then, the measurement model, we proceed to the structural model testing shown in Table 3.

Table 3: Result of Partial Least Squares Structural Equation Modelling Analysis  
(N=85, 500 bootstrapping resamples)

Relationship	Path Coefficient	Decision
H1: EO → AC	0.62**	Supported
H2: EO → P	0.14 <sup>^</sup>	Not Supported
H3: AC → P	0.61**	Supported
H4: EO → AC → P	0.39**	Supported

\*\**p-value* ≤ 0.05

<sup>^</sup>*p-value* > 0.1

The results that entrepreneurial orientation variables positively affect adaptive capabilities of Food and Beverage SMEs (supporting Hypothesis 1), but the role of entrepreneurial orientation does not show a direct relationship to performance as we predicted, therefore this study does not support Hypothesis 2. The results also show the role of adaptive capability positively influences performance, supporting Hypothesis 3. Furthermore, the role of entrepreneurial orientation indirectly influences performance through adaptive capability, this means Adaptive capability mediate the relationship between entrepreneurial orientation and performance, supporting Hypothesis 4. The coefficient of determination (R<sup>2</sup> value) of the performance outcome is 0.50 which characterizes the predictive strength in explaining the construct, then the R<sup>2</sup> value for adaptive capability is 0.39 which is enough to strengthen the strength predictions of the research model, can be seen in Table 4.

Table 4: Assesment of Model's Predictive Power

Constructs	R <sup>2</sup>
AC	0.39
P	0.50

### Discussion and Conclusion

The findings of this study suggest that the role of entrepreneurial orientation can be involved to improve adaptive capabilities at and later play an important role to improve performance in Food and Beverages SMEs in Bandung. This finding is also supported by previous research that entrepreneurial orientation can change internal resources into opportunities that have the potential to be an advantage for the company (Acıkdilli & Ayhan, 2013). EO has the characteristics of being proactive, always innovating and taking risks that increase the profits of the company's products by optimizing adaptive capabilities (Lisboa, et al., 2011). Entrepreneurial behavior integrated with the ability to reconfigure companies is a potential source of competitive advantage (Jantunen, Puumalainen, Saarenketo, & Kyläheiko, 2005). EO take advantage of value and risk opportunities for the company so that opportunity identification is needed (Eshima & Anderson, 2017). Companies must pay attention to how readiness of resources, market information and new product or service offerings from the company can be positively accepted by stakeholders. Pursuing new opportunities, especially in small businesses requires the owner and managerial attention and organizational resources (Hitt, Ireland, Camp, & Sexton, 2001).

The role of adaptive capability significantly affects company performance. Adaptive capability provides opportunities for companies to identify threats and opportunities in the business environment (Gómez & Ballard, 2013). Company performance can be improved by improving capability in sensing the best opportunities, capability to seize opportunities and to transform opportunities through unique resources for Food and Beverage SMEs in Bandung in improving business continuity, improvement, and better performance. In addition, adaptive capability as an important control for business success states that this role can be a strong influence on

organizational growth and sustainable excellence. In a volatile environment, companies need to have the capacity to sense the need to reconfigure the company's structure and achieve internal and external transformation, and this needs constant observation of the market and technology (Teece et al., 1997).

In this study, the role of entrepreneurial orientation does not directly support the performance of Food and Beverages SMEs in Bandung. This is because the role of EO in performance is influenced by the indirect role of mediating variables (Slater & Narver, 2000). The role of adaptive capability supports the relationship between EO and performance (Engelen et al., 2014). The role of entrepreneurs characteristic following changes in market preferences must be accompanied by the ability to sense opportunities, seize opportunities and change opportunities into benefits used by the company (Munawar, 2016). Then, the entrepreneurial characteristics shown by food and beverage entrepreneurs by innovating more on products and processes, being more proactive in seeking new opportunities and taking the risk to enter new markets improve adaptive abilities and indirectly improve survival, growth, and performance. Adaptive capability positively improves performance by 39 percent, meaning that the greater the capability to take advantage of opportunities and turn threats into opportunities to be utilized as profits for the company, the better it will be in improving business continuity, future growth, and better performance. Then the role of entrepreneurial orientation that is integrated with adaptive capability improves performance by 50 percent, meaning that the combination of the two variables will further strengthen the performance improvement of SME Food & Beverages in Bandung.

#### *Limitation and Implication*

The initial limitation of the empirical study is merely looked at for SME Food & Beverages, further analysis overcomes this issue by developing our model to represent it larger in general for different industrial sectors in small, medium or large businesses. Second, this investigation was conducted in Bandung so that it cannot be generalized to other regions and diverse industry categories. Third, the variables examined are restricted to entrepreneurial orientation, adaptive capability, and performance.

#### *Direction*

The study may guided owners or managers of SME Food & Beverages are continue to upgrade their entrepreneurial orientation such as identifying information about market preferences at all times, being more proactive to approach other markets outside the district, setting up for new product development, realizing new techniques in business enterprises so it is supposed to develop adaptive capacity capable of reinforcing the ability to perceive, capture and transform opportunities with extended learning and finally improve business performance and success. Suggestions for further investigation by generalizing to a larger population and seeking different sectors. Research also includes several new variables that support performance such as partner collaboration, management commitment, and organizational learning.

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# Raw Material Ordering Control Application Using Economic Order Quantity (EOQ) and Reorder Point (ROP) Methods for Shoe Company in Indonesia

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## Abstract

The purpose of this research is to make a Raw Material Ordering Control Application Using Economic Order Quantity (EOQ) and Reorder Point (ROP) Methods, To assist shoe manufacturing companies because of the difficulty to classify the type and amount of inventory that must be available in the warehouse, the raw material review period and recording the purchase results.

The construction of this application uses object-oriented methods namely Unified Modeling Language (UML) and Entity Relationship Diagram (ERD). The programming language used in this application is Hypertext Preprocessor (PHP), CodeIgniter Framework and MyStructure Query Language (MySQL) database. The testing of this research was conducted using the blackbox testing method.

this study founded able to make applications that can manage the data master, manage the ordering of raw materials with economical costs using the Economic Order Quantity (EOQ) approach, displaying the reorder period using the Reorder Point (ROP) approach, displaying a safe stock that must be in the warehouse and display accounting records for transactions that occur in the form of general journals and ledgers.

the implications of this research are able to provide solutions for controlling the cost of ordering raw materials and calculating the number of orders that must be made. Practical implications can help companies in real-time recording and ease in giving users access rights. This study is expected to be a solution for controlling shoe raw materials in manufacturing companies.

**Keywords:** Raw material ordering control, Economic Order Quantity, Reorder Point

## Introduction

As one of the manufacturing companies, adequate inventory is needed for the smooth operation of the company, especially the production process. Required periodic recording (real time) to monitor the amount of available inventory in the warehouse. Raw material needs are classified into two types of raw materials, namely the main raw materials and auxiliary raw materials. To meet the required raw material requirements, the company cooperates with suppliers as raw material suppliers in its company. Ordering raw materials to these suppliers sometimes experiences several obstacles, including: conditions of defective goods, lacking or not according to orders, difficulty managing manual accounting records, processing manual inventory data in warehouses that are still manual, and difficulty identifying the order period of materials standard returns so that storage costs increase. Thus, manufacturing companies have several constraints, especially inventory control, among others: controlling inventory with

minimal costs, determining the required period of re-ordering of raw materials, non-systematic recording and manual accounting records. Often the amount of inventory in the warehouse is excessive and even less during the production period.

Inventory control becomes very complex. Amount of inventory that exceeds the need effect on increased storage costs. Conversely, a smaller amount of inventory than production needs affects the company's operational constraints and needs a longer estimated time. Thus, a calculation method is needed that is able to control the order as optimally as possible, but can minimize the costs (costing) incurred and be able to determine the required period of re-ordering of raw materials. In addition, it is necessary to record the purchase transactions and raw materials so as to facilitate the warehouse in monitoring the amount of inventory available in the warehouse.

The Economic Order Quantity (EOQ) method is the most economical method in considering the optimal amount of raw material procurement. As for the calculation of the reorder period using the Reorder Point (ROP) method. The Economic Order Quantity (EOQ) method and the Reorder Point (ROP) method are able to provide solutions for controlling the cost of ordering raw materials and calculating the number of orders that must be made.

So an order control application was made as an implementation of the system of inventory control application system using the method of economic order quantity (eoq) and reorder point (rop). In addition, the creation of this application is motivated by the company's need for real-time recording and the ease of giving users access rights.

Previous research that has similarities with the topic of this research include:  
1) Ni Putu Ary Widiastini made a research entitled Application Determining the Lot Size of Material Ordering by considering Cash Available at CV Amanda, Bandung  
2) Julia Euneke Masakke made a study entitled Web-based Applications for the Management of Production Raw Materials Using Economic Order Quantity Methods in UKM Donat Bebek, Bandung

3) Musdalifah made a research entitled Web-based Application for Raw Material Inventory Management Using Economic Order Quantity Methods at PT.Mommyindo Seblak Wet Instant

## **Literature Review**

### **A. Accounting**

Accounting methods used in the work of this research include the following:

#### **1. Manufacturing company**

Manufacturing companies are companies whose economic activities process raw materials into finished products. Manufacturing companies have the main activity of buying and processing raw materials finished products ready for use (finished good) (A. H. Jusup : 2013).

#### **2. Accounting**

Accounting is an information system that describes the recording and grouping of accounts through proof of transaction. So that, it can process the data into reports, and communicate the results to decision makers (S. M. Herry :2013).

#### **3. Journal**

Journals are divided into two: general journals (generate journals) and special journals (special journals). General journals are accounting records based on transactions that are not recorded in special journals (Syaiful Bahri :2016).

#### **4. Ledger**

The ledger is a group of accounting records that are prepared in accordance with the company's financial statement items. The source of the ledger is a journal that has been made before. The process of moving from a journal book to a ledger is called a post (Syaiful Bahri : 2016).

### 5. Inventory Management

Inventory is a number of goods that must be provided by the company in a certain place (Kasmir, 2013: 264). This means that the company must provide a number of supplies as used for the production process. Adequate inventory is useful for avoiding the need for the production needed by the company (V. W. Sujarweni : 2017)

### 6. Economic Order Quantity (EOQ)

Economic Order Quantity (EOQ) is a method used as a solution in considering the amount of inventory that must be ordered in order to reduce annual inventory costs. At the time of applying the Economic Order Quantity (EOQ) method, the cost of ordering for a year will be the same as the cost of storage for a year. Some elements that influence the Economic Order Quantity (EOQ) are as follows (S. P. Dewi and S. B. Kristanto : 2013): EOQ formula:

$$EOQ = \sqrt{\frac{2 \times RU \times CO}{CU \times CC}}$$

Information :

RU: Required Unit (raw material requirements)

CO: Cost per order (order cost per order)

CU: Cost per unit (purchase price of raw materials per unit)

CC: Carrying cost, usually expressed as a percentage

### 7. Reorder Point (ROP)

*Reorder Point (ROP)* is a condition or point of determination of the order period where the company must re-order its inventory (F. Pujiyanti :2013).

#### **ROP Formula :**

$$ROP = \text{lead time in weekness} \times \text{weekly usage}$$

$$ROP = (\text{lead time in week} \times \text{weekly usage}) - \text{goods in transit}$$

$$ROP = \text{safety stock} + [(\text{lead time in weeks}) \times (\text{weekly usage})]$$

$$ROP = \text{safety stock} + \text{penggunaan selama lead time}$$

Information :

Lead Time: The waiting time required since the commencement of the efforts required to order goods or materials until the goods or materials are received and placed in the company's warehouse.

Goods in transit: Items that have been ordered, but have not been received.

**Safety Stock Formula:**

$$\text{Safety stock} = Q_{\text{maks}} - Q_r$$

Information :

Qmaks: Maximum product usage

Qr: Average product usage

**B. Software Development**

The software development method used in this research is using the waterfall method at the System Development Life Cycle (SDLC) stage (Syaiful Bahri :2016). Stages in the waterfall model include analysis and definition requirements, system and software design, implementation and units testing, integration and system testing, and operation and maintenance

**1. Business Process Modeling Notations (BPMN)**

Business Process Modeling Notations (BPMN) is one diagram that represents business processes and parties or actors involved in business processes in accordance with standard notation (I. Sommerville:2015).

**2. Unified Modeling Language (UML)**

Unified Modeling Language, hereinafter referred to as UML, is a technique or modeling of system design development that uses standard notation as an illustration of system design documentation (Maniah :2017)

**3. Entity Relationship diagram (ER-Diagram)**

Entity Relationship diagram (ER-Diagram) is a database modeling that describes the design of a business system consisting of a collection of entities as a description of the system being built .

**4. Hypertext Preprocessor (PHP)**

PHP (Hypertext Preprocessor) is one programming language that consists of a program line that is used to build a system and requires the help of a web-server in running it .

**5. My Structured Query Language (MySQL)**

My Structured Query Language (MySQL) is a programming language used in accessing and building databases that can be accessed with web-servers (S. P. a. V :

**6. Blackbox Testing**

Blackbox Testing is one of the tests used to test a system that has been previously designed with. Testing using black box testing is a test carried out by observing the

output of the results of the execution carried out. Blackbox Testing aims to assess a system that is built in accordance with the desired or not appropriate functionality .

## **Method**

### **A. Data Collection Method**

Data collection methods in this research work using several methods, including: interview, observation and literature study.

### **B. Software Development Methods**

The software development method used in this research is using the waterfall method at the System Development Life Cycle (SDLC) stage (Syaiful Bahri :2016). Stages in the waterfall model include analysis and definition requirements, system and software design, implementation and units testing, integration and system testing, and operation and maintenance

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## **Findings**

The design used in working on the research in Method is as follows.

### **A. Use Case Diagram**

use case diagram that represents the interaction between actors and the system in making this application. There are three actors who have login access rights, including admin, finance and warehouse.

B. Testing

1. Manual Testing

On March 02 2018 Lambardo Shoes received orders for 60 safety shoes. To produce a pair of safety shoes Lambardo Shoes requires 2 soles, 1 upper glue wrap, 2 shoelaces, 1 thread and 2 square fit leather. To maintain the stability of inventory in the warehouse from these requirements, raw materials are ordered to suppliers. It takes time to process the procurement of goods for 5 days. Reservations for raw materials are subject to a booking fee of Rp1,000,000. From the provision of raw materials, Lambardo Shoes has to spend 40% of warehouse storage costs. At the time of ordering the goods there are some items of the wrong type and the company must retouch the purchase of 10 blek upper glue. In the future Lambardo Shoes sold 40 pairs of safety shoes.

Calculation of manual safety stock:

Safety shoes = 60 pairs

Maximum usage / day:

$$\text{Usage}_{\text{2. maximum}} = \frac{\text{Amount of raw material requirement} \times \text{order}}{30}$$

-Upper Glue	= 1 x 60 = 2	unit
		30
	= 20 x 60 = 40	
-Soles		30
	= 20 x 60 = 40	
- shoelace		30
	= 20 x 60 = 40	
-Kulit		30

*Safety stock:*

$$\text{Safety stock} = (\text{Maximum usage} - \text{minimum usage}) \times \text{lead time}$$

-Upper Glue	= (2-1) x 5	= 5 unit
		= 190
-Soles	= (40-2) x 5	unit
		= 190
-Shoelace	= (40-2) x 5	unit
		= 190
- Leather	= (40-2) x 5	unit

**Manual calculation *Economic Order Quantity (EOQ)*:**

$$EOQ = \frac{2 \times RU \times CO}{CU \times CC}$$

-upper glue	=	√	$\frac{2 \times 60 \times 1000.000}{490.000 \times 40\%}$
			= 25 unit
-Soles	=	√	$\frac{2 \times 1200 \times 1000.000}{35.000 \times 40\%}$
			= 414 unit
- Shoelace	=	√	$\frac{2 \times 1200 \times 1000.000}{2.500 \times 40\%}$
			= 49 unit
- Leather	=	√	$\frac{2 \times 1200 \times 1000.000}{40.0 \times 40\%}$
			= 387 unit

**Manual calculation *Reorder Point (ROP)* :**

$$ROP = lead\ time \times monthly\ usage$$

Description :

<i>Monthly usage</i>	= <u>Kebutuhan</u>	
	30	
-Upper Glue	= 5 x (60/30)	= 10
	= 5 x	=
-Soles	(1200/30)	200
	= 5 x	=
-Shoelace	(1200/30)	200
	= 5 x	=
- Leather	(1200/30)	200

### Manual calculation I Order Frequency

Order Frequency = amount of raw material

*EOQ*

	=	=
- Upper Glue	60	2x
	█	
	2	
	5	
	=	=
- Soles	1200	3x
	414	
	=	=
- Shoelace	1200	1x
	█	
	154	
	9	
	=	=
- Leather	1200	3x
	38	
	7	

### Manual calculation Optimal costs

**Optimal costs** = (( EOQ x raw material prices x save costs))/2+ (Order Frequency x Order Cost))/EOQ

- Upper Glue = ((25 x (490.000 x 40%)) + (2 x 1000.000))

	2	25
		=
	= 2.450.000 + 80.000	2.530.000
	= ((414 x (35.000 x 40%)) + (3 x	
- Soles	1000.000))	
	2	414
		=
	= 2.898.000 + 7.246	2.905.246
	= ((1549 x (2.500 x 40%)) + (1 x	
- Shoelace	1000.000))	
	2	1549
		=
	= 774.500 + 646	775.146
	= ((387 x (40.000 x 40%)) + (3 x	
- Leather	1000.000))	

$$= 3.096.000 + 7.752 = 3.103.752$$

**Purchase manual calculation**

Purchase = (Total Goods x purchase price) + Order cost

	= (25 x 490.000) +
- Upper Glue	1.000.000
	= 13.250.000
	= (414 x 35.000) +
- Soles	1.000.000
	= 15.490.000
	= (1549 x 2.500) +
- Shoelace	1.000.000
	= 4.872.500
	= (387 x 40.000) +
- Leather	1.000.000
	= 16.480.000

**Manual Calculation of Purchase Returns**

Purchase Returns = purchase price x the amount of return

	= 490.000 x 10 =
- Upper Glue	4.900.000

**Sales manual calculation**

Sales = Product price x number of products

	= 350.000 x 40 =
-safety shoes	14.000.000

Manual Testing Journal

Table 3. 1: Testing of general journal functionality for the period March 2018

No	Id	Name Account	Debit	Credit
		Raw material		
1	TR_000001	inventory	Rp12.250.000	
2	TR_000001	Cash		Rp12.250.000
3	TR_000001	Ordering Cost	Rp1000.000	
4	TR_000001	Cash		Rp1000.000
5	TR_000001	Storage costs	Rp196.000	
6	TR_000001	Cash		Rp196.000
		Raw material		
7	TR_000002	inventory	Rp14.490.000	
8	TR_000002	Cash		Rp14.490.000
9	TR_000002	Ordering Cost	Rp1000.000	
10	TR_000002	Cash		Rp1000.000
11	TR_000002	Storage costs	Rp14.000	
12	TR_000002	Cash		Rp14.000
		Raw material		
13	TR_000003	inventory	Rp3.872.500	
14	TR_000003	Cash		Rp3.872.500
15	TR_000003	Ordering Cost	Rp1.000.000	
16	TR_000003	Cash		Rp1.000.000
17	TR_000003	Storage costs	Rp1.000	
18	TR_000003	Cash		Rp1.000
		Raw material		
19	TR_000004	inventory	Rp15.450.000	
20	TR_000004	Cash		Rp15.450.000
21	TR_000004	Ordering Cost	Rp1.000.000	
22	TR_000004	Cash		Rp1.000.000
23	TR_000004	Storage costs	Rp16.000	
24	TR_000004	Cash		Rp.16.000
25	TR_000005	Cash	Rp4.900.000	
26	TR_000005	Purchase Return		Rp4.900.000
27	TR_000006	Cash	Rp14.000.000	
28	TR_000008	Revenue		Rp14.000.000

Manual testing of the ledger

Table 3.2: Testing the cash ledger functionality

No	Date	Account Name	Ref	Account		Balance
				Debit	Kredit	
Beginning Balance						250,000,000
1	2018-06-02	Cash			12,250,000	237,750,000
2	2018-06-02	Cash			1,000,000	236,750,000
3	2018-06-02	Cash			196,000	236,554,000
4	2018-06-02	Cash			14,490,000	222,064,000
5	2018-06-02	Cash			1,000,000	221,064,000
6	2018-06-02	Cash			14,000	221,050,000
7	2018-06-02	Cash			3,872,500	217,177,500
8	2018-06-02	Cash			1,000,000	216,177,500
9	2018-06-02	Cash			1,000	216,176,500
10	2018-06-02	Cash			15,480,000	200,696,500
11	2018-06-02	Cash			1,000,000	199,696,500
12	2018-06-02	Cash			16,000	199,680,500
13	2018-06-02	Cash		4,900,000		204,580,500
14	2018-06-02	Cash		14,000,000		218,580,500

2. Testing *black box testing*

The following is a black box testing test on the functionality of the reorder point (rop) calculation.

Table 3.3: Test table *black box testing reorder point*

Test No.	Test Case	Input Date/ Steps	Result		Status
			Expected	Actual	
1	Dropdown of raw material names		the system will not receive input values and display an error message "fill in the form name of the raw material"	the system will not receive input values and display an error message "fill in the form name of the raw material"	Succeed
2	average usage entry	12	The system will receive input values	The system will receive input values	Succeed
		abcd	The system will not receive input values	The system will not receive input values	Succeed
			the system will not receive input values and display an error message "fill in the average usage form"	the system will not receive input values and display an error message "fill in the average usage form"	Succeed

## Discussion and Conclusion

### A. Discussion

The following is a discussion of the results of manual testing and black box testing

1. From the results of manual testing, it is obtained the calculation of economic order quantity (eoq) and reorder point (rop) according to the output display on the application.
2. From the testing results of the black box testing in table 3.3, the name of the raw material dropdown and the average usage entry has been tested according to the expected results.

### B. Conclusion

Based on the application development and testing carried out, it can be concluded that the discussion of this application is as follows.

1. This application can monitor the amount of additions and reduction of inventory in the warehouse.
2. This application can manage inventory both purchases, procurement of raw materials and
3. purchase returns and has been successfully tested based on the results of functionality testing.
4. This application can determine the total order of the most economical raw materials using the Economic Order Quantity (EOQ) method.
5. This application can determine the period of re-ordering of raw materials using the Reorder Point (ROP) method.
6. This application can determine the total safe inventory that must be available in the warehouse using the safety stock method
7. This application can present report recording in the form of purchase reports and purchase return reports

8. This application can present accounting records in the form of journals and ledgers.

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# Does the Use of Social Media for Political Marketing Through Stand-Up Comedy Actors Make Optimum Output?

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## **Abstract**

The improvement of correspondence innovation has entered the lives of human being. One type of correspondence is the improvement of new media advancements who brought forth online life. Political world is additionally not free from the impact of new media what's more, internet based life. Internet based life resemble two sides of a coin for political performing artists. On the one hand, the accomplishment by utilizing internet based life is getting positive help. In any case, then again disappointment by utilizing web based life is the hazard by harming the picture. Indonesian comedian mostly have many followers in social media that can effectively used for gaining voter in political campaign, Panji Pragiwaksono and Ernest Prakasa for example. These two stand-up comedian actor often show their support for political issues in Indonesia and gain many feedback from their follower, mostly a positive feedback and indicates strongly agree with their political view. These two comedian actors refer to celebrity or opinion leader.

This research propose an examination of social media strategy effect such as Youtube channel to political marketing through comedian actor with case study stad up comedian Panji Pragiwaksono and Ernest Prakasa. This study use partial regression method in data analysis and quota sampling, located in Bandung, Indonesia. Resulted from this study shown there is indirect effect of using comedian actor in social media through political marketing and direct effect from social media shown effect but not greater than indirect effect through comedian actor.

**Keywords:** Stand-up Comedy, Actor, Marketing, Politic, Social Media

## **1. Introduction**

In the current era of communication globalization, the role of social media is needed by humans to interact with one another. Social media is a media to socialize with each other online, which allows users to interact with each other without being limited by time and space. This social media has a big influence on society especially the young people who are the main consumers. The influence of social media as an educational communication medium, where users can provide opinions and provide information to each other. On the other hand social media can also change a person's character, especially teenagers who are unstable and tend to be easily affected. From social media this can be used as a tool to change the minds of young people about political parties. Because a young man can spend approximately eight hours per day

interacting through social media, be it Facebook, twitter, line, path and so on. Social media is the best place to convey information about political parties. Through social media can be used to spread the hottest issues about news from members of political parties. Especially when there was a corruption case committed by a member of a political party. It can be ascertained that in just a few seconds the news of corruption will immediately spread quickly through social media. Almost every day the news of corruption appears as the main topic. The large number of corruption cases makes the trust of youth towards political parties increasingly depleting. Not only corruption cases. There are also many councilors who are more concerned with themselves than the people's aspirations. Instead they competed to show the high class style by wasting public money. The number of news on social media that always shows the negative side of members of political parties that actually give a bad impact on the readers. Supposedly, in addition to displaying the negative side, social media must also be able to display the positive side of members of political parties that can be used as role models or guidelines for youth. Single comedian as a stand-up actor comedy or better known as comic, is a recent figure began to be known by the general public in Indonesia. As a figure who always gives laughter for stand-up comedy lovers, make it comic as a popular figure by various groups of people. Comic in every appearance he gave various stories from their point of view. Although the main purpose is to give a laugh to the audience, but through the delivery of this message of democracy is realized. Submission of material from comic is messages from people on surrounding, like relatives regarding various things This makes comic voice words as representations social reality and social criticism from circles certain. Based on research from PewResearch Center for the People and the Press in the year 2002 (in Rantapallo, 2014: 694), at least there are 21% of young people (18-29 years) obtain information regularly about presidential campaign from The Daily comedy Show and Saturday Night Live. Young and Tisinger (2006) found a positive relationship between watching midnight comedy and watching news in general form. Or it can be said that the message delivered related to the presidential campaign through stand-up comedy is quite effective. Another research conduct by Aryawangsa ,et all (2015) resulted that stand-up comedy has a deep position basic elements of political communication in Indonesia namely pleasure group. This position is obtained because based on Brian's explanation McNair pleasure group is a groups that move bring issues which exists. This is in accordance with comic who always brings material based on existing and developing issues in society. From that phenomenon, researcher proposes study entitled "Optimization Social Media towards Political Marketing through Indonesian Comedian Actor".

## **2. Literature Review**

### **2.1 Political Marketing**

M. N. Clemente (2006) defines political marketing as marketing ideas and opinions related to political issues or issues regarding candidates. In general, political marketing is designed to influence voters' votes in the election. According to A. O'Cass (1996) marketing politics is the analysis, planning, implementation and control of politics and election programs designed to create, build and maintain a favorable relationship between parties and voters for the purpose of achieving political objective marketers.

Butler and Collins (1994) define political marketing as an "adaptation" of the concepts and techniques of commercial marketing carried out by political actors to organize, implement and manage political activities to achieve political goals. According to Firmanzah (2012:64), the paradigm of the concept of political marketing is; First, political marketing is more than just political communication. Second, political marketing is applied in the whole process, not only limited to political campaigns, but also includes how to formulate political products through the development of symbols, images, platforms and programs offered. Third, political

marketing uses a broad marketing concept that includes marketing techniques, marketing strategies, publication techniques, offering ideas and programs, product design, and information processing. Fourth, political marketing involves many disciplines, especially sociology and psychology. Fifth, political marketing can be implemented starting from the election to the political lobby in the parliament.

### ***2.1.1 Model of Political Marketing***

Political marketing is part of Political Communication. Political Marketing is used in more contexts and purposes narrow. So that it can be said that all political activities marketing is part of Political Communication activities while there are other parts of Political Communication that are not is a Political Marketing activity (Inco Hary Perdana, 2012: 18) The use of marketing approaches in the political world is known with political marketing (political marketing). In marketing politics, what is emphasized is the use of a marketing approach to help politicians and political parties to be more efficient and effective in building two-way relationship with constituents and society. This relationship interpreted very broadly, from physical contact during the campaign period up to indirect communication through news on mass media (Firmanzah, 2012: 128). Marketing adapted to in the political world, can provide inspiration on the way a candidate in making products in the form of issues and programs work based on the problems at hand the community. Laswell method in Inco Hary Perdana (2012:17-18) shown there are 5 (five) dimension to measure political marketing based Laswell method, the dimension are: (1) Communicator (2) Message (3) Effect (4) Channel/Media (5) Audience

In communicator political communication is two-way for example; the Government which was originally a political communicator can be a communicant at the time other. However, in political marketing, communicators limited to political actors who will participate in elections such as parties or candidates. In political communication, messages can be interpreted large. The message can be the government's appeal to the community, society to the government and even the community to the community. On political message marketing is narrower. Message content usually in the form of a promise from the candidate offered through various policy plans. Message submitted by the party or candidate. From message that, electore (voters) will have the reason why the party or candidate must selected. In the language of Commercial Marketing often called reason to believe.

In the intended Political Communication audiences or communicants can be very broad. Can civil society, NGO or government, when indeed the message is intended for them. On political marketing, what is meant by the audience is electore or voters. In Political Communication what is meant is media mass. While in political marketing, the media can means mass media but also through representation direct or influential figures / groups towards values in an area. This is deep political marketing campaign strategy known as push, pull or pass Political Marketing. In Political Communications referred to as effects from communication can be seen broadly like civil education while in more political marketing narrow coverage. What you want to produce is electore who is active in the election and chooses certain candidate. A little wider, deep political marketing also wants to produce that effect party or candidate rises in image and popularity.

### ***2.2 Stand Up Comedy***

Stand-up comedy is apparently the most established most all inclusive, fundamental, and profoundly huge type of clever articulation (barring maybe genuinely unconstrained, casual social clowning and prodding). It is the most perfect open comic correspondence, performing basically a similar social and social parts in for all intents and purposes each known society, at various times. (Mintz. 1985: 71). Dictionary.com states that phenomenal satire is "a comic monolog performed by one individual remaining on a phase; additionally rang stand", this can

be viewed as a general definition to be found in different lexicons too however which tragically does not contain numerous essential subtle elements.

From Oxford dictionary, stand-up comedy as an adjective mean performed by a single person telling jokes and funny stories on stage. Stand-up comic as a workmanship is hard to characterize in light of the fact that it contains such a large number of components of different sorts of execution. Entertainers are like on-screen characters; both perform monologs, work in front of an audience, and utilize their voices and bodies to pass on stories and thoughts to their groups of onlookers. Humorists likewise share numerous attributes with speakers; each addresses the gathering of people straightforwardly and endeavors to construct a compatibility with it (Double: 1997:58).

### ***2.2.1 Dimension of Stand Up Comedy***

Professional stand-up comedians are a unique vocational group, whose distinctive traits, abilities, and interests can illuminate the origins, functions, and predictors of humor (Fisher & Fisher, 1981; Greengross & Miller, 2009). Individuals with a good sense of humor are perceived as friendly, interesting, pleasant, intelligent, emotionally stable, and creative (Cann & Calhoun, 2001 in Greengross et al. 2011:1). As of late, another self-report survey, the Humor Styles Questionnaire (HSQ), was produced to gauge both positive and negative employments of cleverness (Martin et al., 2003), and it is increasingly used by humor specialists (Chen and Martin, 2007; Erickson & Feldstein, 2007; Greengross and Miller, 2008). The HSQ measures two positive employments of cleverness in regular day to day existence (affiliative and self-improving) and two negative uses (forceful and self-defeating) (Martin et al., 2003). Affiliative amusingness advances social bonds and puts others calm through telling jokes, saying clever things, and not considering oneself excessively important. Self-improving funniness is the ability to see the entertaining side of life even in antagonistic and stressful times, and to utilize humor as a way of dealing with stress, as accentuated in previous humor measures (Lefcourt et al., 1995; Martin, 1996). Aggressive diversion expects to prod and disparagement others through put-downs, joke, and derision, regularly to upgrade one's social status to the detriment of the exploited individual (as in other-belittling cleverness) or gathering (as in sexist or bigot humor). Reckless silliness interests others at one's own cost through making oneself the "butt" of jokes and giggling with others after being derided, in spite of the fact that it can likewise be esteemed as self-censuring humor (Greengross and Miller, 2008).

### ***2.3 Social Media***

Social media are defined as "a gathering of web based applications that expand on the ideological and technological foundations of Web 2.0 that permit the creation and S. Stieglitz, L. Dang-Xuan trade of client created content" (Kaplan and Haenlein 2010). As of late, online networking, for example, SNS, weblogs, micro blogging, and wikis play an undeniably imperative role in forming political correspondence in the US and around the world (e.g., Aday et al. 2010; Benkler 2006; Bennett 2003; Farrell and Drezner 2008; Sunstein 2002; Tumasjan et al. 2011). The possibilities of online networking appear to be most encouraging in political setting as they can be an enabler for more interest and popular government. Creighton (2005) defines open investment as the procedure by which public concerns, needs and qualities are joined into administer mental and corporate basic leadership. The so called support centers around this procedure as well as on using the Internet as an extra or restrictive instrument. Stieglitz and Huan (2014) show a social media analytics framework in political context that is feedback, opinion, idea and suggestion. Social media used for political communication in term user in social media there is a feedback giving by influencer or opinion shout by opinion leader, ide come from popular or voter or suggestion giving by followers.

#### **2.4 Optimization**

Optimization is the results achieved in accordance with the wishes, so optimization is the achievement of results in accordance with expectations effectively and efficiently. According to the Big Indonesian Dictionary (Depdikbud: 1995: 628) optimization comes from the optimal word which means best, highest. Optimization is also interpreted as a measure of all needs can be met from the activities carried out. According to Winardi (1996: 363) optimization is a measure that causes achievement aim. In general, optimization is the search for the best value available of several functions given in a context.

### **3. Theoretical Framework and Hypothesis Development**

Proficient stand-up entertainers utilize a blend of silliness styles, both positive and negative. Many utilize forceful funniness on stage, including sexual and ethnic cleverness (Fisher and Fisher, 1981; Janus, 1975), which is frequently mainstream with gatherings of people, regardless of whether it does not reflect comics' close to home perspectives or private amusingness utilize. In a previous think about, comics' identities off stage were markedly different than in front of an audience (Greengross and Miller, 2009). Comedian stand to show an extraverted identity in front of an audience (Janus, 1975), but are very contemplative, in actuality, contrasted with non-comedians. This inconsistency proposes that their regular styles of diversion (as assessed by the HSQ) may be distinctive thought about toother individuals, as well when contrasted with their dramatic persona. Al-however the four funniness styles estimated by HSQ are conceptually and practically particular, there are sure connections inside the positive and negative classifications, between utilization of affiliative and self-improving diversion, and between utilization of forceful and foolish amusingness (Chen and Martin, 2007; Greengross and Miller, 2008; Kazarian and Martin, 2006).

Previous research by Gregorowicz (2013) shown that political comedy advances learning and ideological imperative past presentation to indistinguishable data in hard news frame, and its relative impact is most noteworthy among those with direct earlier political information. Learning is intervened by the experience of entertainment, not observations that the (indistinguishable) data is all the more fascinating. Optional overview information is utilized to reproduce trial examination and inspect the relationship between genuine presentation to political drama and the structure of political dispositions.

Given the tremendous growth of social media, in particular Twitter and Facebook, social media are increasingly used in political context recently both by citizens and political institutions (e.g., politicians, political parties, political foundations, think tanks etc.). From the perspective of political institutions, it is important to actively participate in the political communication based on the use of social media, especially during election campaigns. Social media thereby represents the ideal vehicle and information base to gauge public opinion on policies and political positions as well as to build community support for candidates running for public offices (Zeng et al. 2010).

From theory above researcher conduct theoretical framework using Humor Styles Questionnaire (HSQ) (Martin et al., 2013) for stand-up comedy variable measures, Laswell method for political marketing measures and dimension of social media by Stieglitz and Huan (2014). Theoretical framework show below in figure 1:

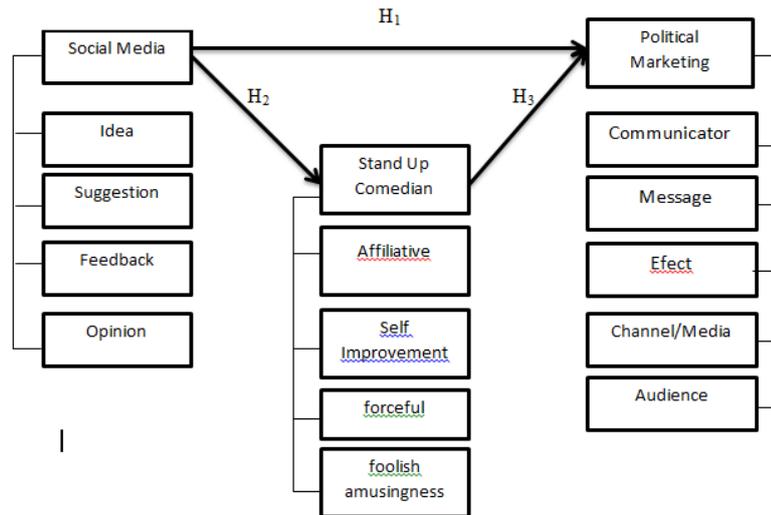


Figure 1: Theoretical Framework

Then the researcher proposed the statistical hypothesis as follows:

Table 1: Hypothesis Proposal

No	H <sub>0</sub>	H <sub>a</sub>
1	The Use of Social Media in Indonesian political marketing works optimally	The Use of Social Media in Indonesian political marketing doesn't work optimally.
2	The Use of Social Media in Indonesian Stand Up Comedy Actor works optimally	The Use of Social Media in Indonesian Stand Up Comedy Actor doesn't work optimally.
3	The Use of Indonesian Stand Up Comedian works optimally in political marketing	The Use of Indonesian Stand Up Comedian doesn't work optimally in political marketing.
4	The Use of Social Media in Indonesian Political Marketing through Stand Up Comedian works optimally	The Use of Social Media in Indonesian political Marketing through Stand Up Comedian doesn't work optimally.

With the provision of:

1.  $t_{\text{arithmetic}} > t_{\text{table}} = H_0$  is not accepted and H<sub>1</sub> accepted.
2.  $t_{\text{arithmetic}} < t_{\text{table}} = H_0$  accepted and H<sub>1</sub> is not accepted.

#### 4. Method

Data analysis for this research use Partial Least Square Method. For sampling use quota sampling with the criteria of respondent must have account in social media, being a follower of Ernest Prakasa or Panji Pragiwaksono, domiciled in Bandung and already have political right. Sample divided into two group of subset sample, one taken from follower of Ernest Prakasa in Instagram the other is subscriber Panji Pragiwaksono on Youtube channel, the reason use two type of application in social media is for variety and giving the different perspective. The number of samples identified by used of Slovin measurement as listed below:

$$n = \frac{N}{N.d^2 + 1}$$

- Where :

n = number of samples

N = total population = 997.000 (Followers of Ernest Prakasa in Instagram)

d2 = precision (set at 10% and confidence level of 90%)

Based on this formula, the following sample sizes are obtained:

$$n = \frac{997.000}{[997.000 (0,1)^2 + 1]}$$

n = 99.98 = 100 (rounded)

Sample 1 = 100 responden (Ernest Prakasa followers)

- Formula for sample 2 :

$$n = \frac{120.452}{[120.452 (0,1)^2 + 1]}$$

n = 99.92 = 100 (rounded)

n = number of samples

N = total population = 120.452 (Subscribers of Panji Pragiwaksana in Youtube)

d2 = precision (set at 10% and confidence level of 90%)

Sample 2 = 100 responden (Panji Pragiwaxsono subscribers)

According to Ghazali (2008) the purpose of PLS is to help researchers for predictive purposes. The formal model defines a latent variable is an aggregate linear indicator. Weight estimate to create a component of the latent variable score is obtained based on how the inner model (the structural model that connects between latent variables) and the outer model (the measurement model is the relationship between the indicators and the construct) is specified. The result is the residual variance of the dependent variable (both latent variables and indicators) taken. For running data, this research use software XLSTAT.

## 5. Findings

### 5.1 Outer Model

Table 2: Correlations (Dimension 1)

Latent variable	Manifest variables	Standardized loadings	Loadings	Communalities	Standard error	Critical ratio (CR)	Lower bound (95%)	Upper bound (95%)
Social Media	Idea	0.9832	<b>0.9832</b>	<b>0.9667</b>	0.0041	237.4324	0.9705	0.9887
	Suggestion	0.9831	<b>0.9831</b>	<b>0.9665</b>	0.0035	281.748	0.9722	0.9883
	Feedback	0.9676	<b>0.9676</b>	<b>0.9362</b>	0.0072	134.3899	0.9501	0.9776
	Opinion	0.9382	<b>0.9382</b>	<b>0.8802</b>	0.0118	79.8092	0.911	0.9579
Stand Up Comedy	Affiliative	0.9809	<b>0.9809</b>	<b>0.9621</b>	0.0037	262.9514	0.9688	0.9868
	Self-Improvement	0.9789	<b>0.9789</b>	<b>0.9582</b>	0.0041	235.9645	0.9676	0.9857
	forceful	0.9261	<b>0.9261</b>	<b>0.8576</b>	0.0128	72.5299	0.8982	0.9516
	foolish amusingness	0.8744	<b>0.8744</b>	<b>0.7646</b>	0.0478	18.2798	0.7438	0.9311

Source: Data running by XLSTAT

Table 3: Discriminant validity (Squared correlations < AVE) (Dimension 1)

	Social Media	Stand Up Comedy	Political Marketing	Mean Communalities (AVE)
Social Media	<b>1</b>	<b>0.9224</b>	0.3921	<b>0.9666</b>
Stand Up Comedy	<b>0.9224</b>	<b>1</b>	0.4595	<b>0.9077</b>
Political Marketing	0.3921	0.4595	<b>1</b>	<b>0.9601</b>
Mean Communalities (AVE)	<b>0.9666</b>	<b>0.9077</b>	<b>0.9601</b>	<b>0</b>

Source: Data running by XLSTAT

Convergent validity of the measurement model using reflective indicators is assessed based on the loading factor indicators that measure the construct. In this study there are 3 constructs with the number of indicators between 4 to 5 indicators with a scale of 1 to 5. In the current study:

- a) The construction of social media was measured using 4 (four) indicators, namely idea, opinion, feedback and suggestion. All indicators have loading factors above 0.7, AVE > 0.5 and communality > 0.5.
- b) The stand up comedy construct is measured using the affiliative, self-improvement, forceful and foolish amusingment indicators. All indicators have loading factors above 0.7, AVE > 0.5 and communality > 0.5.
- c) Construction political marketing is measured using indicators communicator, message, effect, channel / media and audience. All indicators have loading factors above 0.7, AVE > 0.5 and communality > 0.5.

Based on the results of the loading factor above, it can be concluded that the construct has good convergent validity.

### 5.1.1 Composite Reliability and Cronbach's Alpha

In addition to construct validity testing, construct construct reliability testing was also measured by composite reliability and Cronbach's alpha from the indicator block that measures the construct. The following is the result of composite reliability and Cronbach's alpha testing processed using XLSTAT software.

Table 4: Composite Reliability and Cronbach's Alpha

Latent variable	Dimensions	Cronbach's alpha	D.G. rho (PCA)	Condition number	Critical value	Eigenvalues
Social Media	4	0.9654	0.983	5.3775	1	1.9332
						0.0668
						0.1896
						0.1699
Stand Up Comedy	4	0.9491	0.9672	5.3116	1	2.7231
						0.1804
						0.0965
						0.1148
Political Marketing	5	0.9585	0.9797	4.9095	1	1.9203
						0.0797
						1.6267
						0.3733
						1.8852

Source: Data running by XLSTAT

All constructs have composite reliability values (D.G rho) above 0.70 and Cronbach's alpha above 0.60. So it can be concluded that the construct has good reliability.

### 5.2 Inner Model

The structural model in PLS is evaluated using R for the dependent variable and the path coefficient value for the independent variable which is then assessed for its significance based on the t-statistical value of each path. The structural model of this study can be seen in the following tables and figures:

Table 5: Coefficient Determination and F Test For Construct Stand Up Comedy

R <sup>2</sup>	F	Pr > F	R <sup>2</sup> (Bootstrap)	Standard error	Critical ratio (CR)	Lower bound (95%)	Upper bound (95%)
0.614	116.877	0.000	0.612	0.084	7.330	0.425	0.775

Source: Data running by XLSTAT

Result for F test show the use of social media significant works optimally on Indonesian standup comedy, value of the optimization is 61,4 %. Significance in level 0.000 below Probability level 0.05.

Table 6: Path Coefficient For Stand Up Comedy

Latent variable	Value	Standard error	t	Pr >  t	f <sup>2</sup>	Value (Bootstrap)	Standard error(Bootstrap)	Critical ratio (CR)	Lower bound (95%)	Upper bound (95%)
Social Media	0.464	0.058	7.995	0.000	0.435	0.459	0.064	7.193	0.302	0.586

Source: Data running by XLSTAT

Equation of the model:

$$\text{Stand Up Comedy} = 0.46366797622736 * \text{Social Media}$$

Based on the table above, the model is significant (P Value < 0.05 that is  $0.000 < 0.05$ ,  $H_{a2}$  is not accepted and  $H_{02}$  is accepted,  $t_{\text{arithmetic}} > t_{\text{tabled}}$  ( $7.995 > 1.6525$ ), the use of social media works optimally in Indonesia stand-up comedy actor.

Table 7: Coefficient Determination and F Test For Construct Political Marketing

R <sup>2</sup>	F	Pr > F	R <sup>2</sup> (Bootstrap)	Standard error	Critical ratio (CR)	Lower bound (95%)	Upper bound (95%)
0.737	136.705	0.000	0.739	0.052	14.208	0.628	0.838

Source: Data running by XLSTAT

Table 8: Path Coefficient For Political Marketing

Latent variable	Value	Standard error	t	Pr >  t	f <sup>2</sup>	Value (Bootstrap)	Standard error (Bootstrap)	Critical ratio (CR)	Lower bound (95%)	Upper bound (95%)
Social Media	0.235	0.057	4.084	0.000	0.114	0.230	0.047	4.973	0.142	0.353
Stand Up Comedy	0.487	0.068	7.141	0.000	0.349	0.494	0.088	5.547	0.292	0.695

Source: Data running by XLSTAT

$$\text{Political Marketing} = 0.234776820923378 * \text{Social Media} + 0.487328839393392 * \text{Stand Up Comedy}$$

Stand Up comedy and social media simultaneously impact on political marketing, if  $F_{\text{arithmetic}} > F_{\text{table}}$ , ( $H_{a3}$  is rejected and  $H_{03}$  accepted) then model is significant, for  $n=200$  and  $k= 2$  the  $F_{\text{table}}$  is 1.84 and  $F_{\text{arithmetic}}$  is 136.705, means  $H_{01}$  accepted, the model is significant, the use of social media through stand-up comedian actor simultaneously impact on political marketing as much as 73,7 %.

From the table above, it can be seen from  $t_{\text{statistic}} > t_{\text{table}}$ , where  $t_{\text{table}}$  for  $n = 200$  ( $df-2$ ) and Alpha 0.05 is 1.6525 while  $t_{\text{statistic}}$  for social media 4.084 and 7.141 for stand-up comedy means:

- 1)  $H_{a1}$  is not accepted and  $H_{01}$  accepted, For P Value < 0.05 that is  $0.000 < 0.05$  means model significant and  $t_{\text{arithmetic}} > t_{\text{tabled}}$  ( $4.084 > 1.6525$ ) means variable of social media work optimal directly on political marketing.
- 2)  $H_{a3}$  is not accepted and  $H_{03}$  accepted. P value < 0.05 that is  $0.0000 < 0.05$ , means model significant and  $t_{\text{arithmetic}} > t_{\text{tabled}}$  ( $7.148 > 1.6525$ ), means the use of stand-up comedy actor works optimally on political marketing.

Table 9: Direct and Indirect Effect

	Direct Effect			Indirect Effect	
	Social Media	Stand Up Comedy	Political Marketing	Social Media	Stand Up Comedy
Social Media					
Stand Up Comedy	<b>0.464</b>			<b>0</b>	
Political Marketing	<b>0.235</b>	<b>0.487</b>		<b>0.2259</b>	

Source: Data running by XLSTAT

From the table above, this study can prove that variable Stand Up Comedy is not the intervening variable between the use of social media and political marketing, the use of social media does directly significant works optimally to political marketing and do not require mediation of variable stand-up comedy,  $H_{a4}$  is accepted and  $H_{04}$  is not accepted.

## 6. Suggestion

From result above comedians from stand-up comedy and optimum use of social media in political marketing in Indonesia. This optimization refers to the achievement of the objectives of the use of both variables on political marketing, namely the achievement of messages, the effectiveness of message delivery, the number of audiences, the role of communicators and the media in delivering messages. From the 5 (five) indicators measurement of political marketing all are significantly influenced by social media and stand-up comedy actors. We suggest that actor from stand-up comedy manage their audience or follower with some professional management artist that contains experts in politics, communication and marketing so that the right synergies and strategies are created, do not contain racism, ethnicity, and allude to religious issues.

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# A Literature Review of Experience Quality, Destination Image, Perceived Value, Customer Engagement, and Behavior Intentions of Bali's Subak Visitors

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## Abstract

**Purpose:** This is a conceptual paper that investigates variables correspond to behavior intention of Bali's Subak sites visitors

**Design/methodology/approach:** Literature review has been conducted from articles of reputable journals to analyze which variables have the potential to influence behavior intention both direct and indirect especially in the heritage tourism context

**Findings:** The results reveal that experience quality and destination image are considered to have direct effects to behavior intention, and indirect effects through perceived value

**Research limitations/implications:** This study is conducted in the context of heritage tourism, especially Subak sites in Bali which has been appointed as one of World Heritage Sites (WHS) in 2012 by UNESCO

**Practical implications:** By developing a modified model from previous studies, it is expected to fill the gap between theories and can be used as a reference for further research. For the conservation interests this can be used in enhancing heritage-based tourist attractions by forming loyalty through the development of experience quality, destination image, customer engagement, and perceived value

**Originality/value:** Exploring the conative level of loyalty in the context of heritage tourism in the developing country which the modified model can be used for another heritage-based attractions all over the world.

**Keywords:** Experience Quality, Destination Image, Perceived Value, Customer Engagement, Behavior Intention, Subak, Bali, Indonesia

## Introduction

The tourism industry of Indonesia has developed in recent years and has contributed to 4% of the total economy with an improvement plan of gaining 20 million visits from foreign tourists

by 2019. This initiative is caused by Indonesia's less performance in the tourism industry compared with Singapore, Malaysia, and Thailand.

Indonesia's authorities should determine the influencing factors of foreign tourists' visit to particular destinations to meet the goal of 20 million visits by 2019. Boyd (2002:211) mentioned that, instead of trying to find three S (sea, sand, and sun), tourists rather find another attraction on the basis of experience.

Li and Hunter (2015:248) pointed out that according to UNWTO, heritage tourism is considered as a branch of tourism that has enormous growth in the global tourism map. Apostalakis and Jaffry (2005:309) argued that heritage tourism is closely related to experience. Heritage tourism also provides visitors with chances to capture what was in the past and interpret those in recent situation (Nuryanti, 1996:250). All experiences, such as daily activities, traditional ceremonies, and religious rituals, can be felt by the visitors depending on their respective interpretations.

UNESCO lists World Heritage Sites (WHS) all around the world, including Indonesia with eight WHS in two categories. Komodo National Park, Ujung Kulon National Park, Lorentz National Park, and Sumatera Tropical Forest are under Natural Heritage. Borobudur Temple, Prambanan Temple, Sangiran Archaeological Site in Bali, and Subak system in Bali are under Cultural Heritage. Subak system in Bali is the youngest among all sites because it has been appointed as WHS by UNESCO only in 2012. Five Subak locations, which have been approved by UNESCO, are situated all over Bali.

Table 1: Five locations of Subak system in Bali

ID	Name & Location	State Party	Coordinates	Area
1194re v-005	Royal Water Temple Pura Taman Ayun	Indonesia	S8 32 31.00 E115 10 21.00	Property: 6.9 ha Buffer zone: 51.3 ha
1194re v-004	Subak Landscape of Catur Angga Batukaru	Indonesia	S8 20 37.00 E115 7 20.00	Property: 17,376.1 ha Buffer zone: 974.4 ha
1194re v-003	Subak Landscape of Pekerisan Watershed	Indonesia	S8 25 46.00 E115 18 44.00	Property: 529.1 ha Buffer zone: 188 ha
1194re v-002	Lake Batur	Indonesia	S8 15 33.00 E115 24 10.00	Property: 1,606.4 ha Buffer zone: 210 ha
1194re v-001	Supreme Water Temple Pura Ulun Danu Batur	Indonesia	S8 15 17.00 E115 20 10.00	Property: 1.4 ha Buffer zone: 31.1 ha

Source: UNESCO (2017)

The data gathered from the Bali's government tourist office show that only four out of five Subak attractions are included in the list of most visited attractions in Bali. A few Subak attractions have encountered a declining number of visits.

Behavior intention, such as gaining visitors and recommendation to others (Lee, Petrick, & Crompton, 2007:402), should be analyzed to achieve the target number of visits in the near future. This understanding can help the provider and other parties with the same interests to adapt and fulfill the needs of customers for increasing the number of visits in the future. Word-of-mouth and repurchase/revisit intentions are part of behavior intentions (Chen & Tsai, 2007),

and their positive and negative influences toward tourism industries have been investigated in various countries.

Table 2: Number of Subak Visitors

No	Subak Attraction	2011	2012	2013	2014	2015	2016
1	Taman Ayun	167.005	230.894	281.901	329.691	363.507	289.153
2	Penelokan Batur	488.933	458.184	509.983	500.324	473.010	361.488
3	Tirta Empul	366.368	461.677	445.502	443.883	450.120	399.008
4	Ulun Danu Beratan	463.103	512.365	724.065	735.634	650.412	315.828
5	Jatiluwih	44.058	97.909	101.560	165.158	164.366	165.268

Source: Tourism Department Bali Province (2017)

### Literature Review

Subak system is an experience-based tourist attraction. In this type of attraction, the quality felt by the visitors is gained from the experience during the visit and not the service quality (SERVQUAL) provided by the producers (Chen & Chen, 2010:29). SERVQUAL and experience quality should be distinguished from each other. The differences between the two variables remain confusing (Crompton & Love, 1995). Table below presents the main differences.

Table 3: Differences between service quality and experience quality

Service Quality	Experience Quality
Provided by producers	Involving attributes brought by consumers
Objective	Subjective

Source: (Chen & Chen, 2010:29)

In the tourism context, “service consuming” occurs when visitors interpret their experience during the visit subjectively. “Service” is not produced by the producers. Unlike SERVQUAL, experience quality is relatively new and is rarely used in research compared with SERVQUAL. This variable can be used as an antecedent of behavior intention directly and indirectly through satisfaction (Baker & Crompton, 2000:791; Cole, Scott, & Cole, 2004:82; Cole & Chancellor, 2009:325) and perceived value (Chen & Chen, 2010:30).

By understanding experience quality, producers can evaluate post-consumption activities from consumers, such as perceived value (Jin, Lee, & Lee, 2015:82), which further affect behavior intentions (Ryu, Han, & Kim, 2008:459). Perceived value is considered a link between SERVQUAL and behavior intention. This variable can be found in many studies by Murphy, Pritchard, and Smith (2000) in the tourism context in Victoria, Canada; Murphy et al. (2000) on waterpark attraction in South Korea; Williams and Soutar (2009) on adventure tourism; and Chon (2006) on pleasure tourism.

Customer engagement is an antecedent of loyalty (Vivek, Beatty, & Morgan, 2012) and has long been studied in marketing and has been applied in social media context (So et al. 2014). Technological developments enable online environments to provide media channels that can build and maintain the producer–consumer relationships, especially in the tourism context (So et al. 2014). Consumer engagement is a strategy needed to maintain loyalty using experience and strong producer–consumer relationship (So et al. 2014).

Image is an important concept in consumer behavior studies because it contains subjective perception, values, satisfaction, and behavior intentions (Dobni and Zinkhan, 1990). In a broader tourism literature map, this concept is referred to as a place image or destination image. Only a few studies confirm the role of image as a predictor of perceived value. Chen and Tsai (2007) tested the relationship between image and perceived value, but the result is insignificant. Andreassen and Lindstead (1998) found that image indirectly affects perceived value through quality.

**Theoretical Framework**

This study aims to examine models from previous studies on behavior intention and its antecedents. Accordingly, the logical relationship between variables can be used to develop a framework.

**Behavior Intention and its Antecedents**

To achieve the target number of visits in the near future, behavior intention, such as gaining visitors and recommendation to others, must be analyzed because four out of five Subak attractions in Bali encountered a declining number of visits. Previous studies show that certain antecedents to behavior intentions can be applied in the tourism context. From the pictures below, we can find that experience quality is a possible direct or indirect antecedent of behavior intentions, especially in the tourism context.

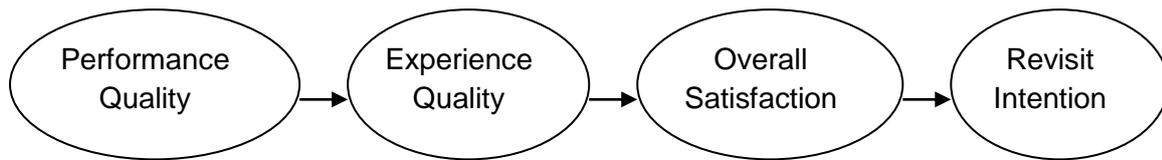


Figure 1: Framework from Cole and Scott  
 Source: Cole and Scott (2004:82)

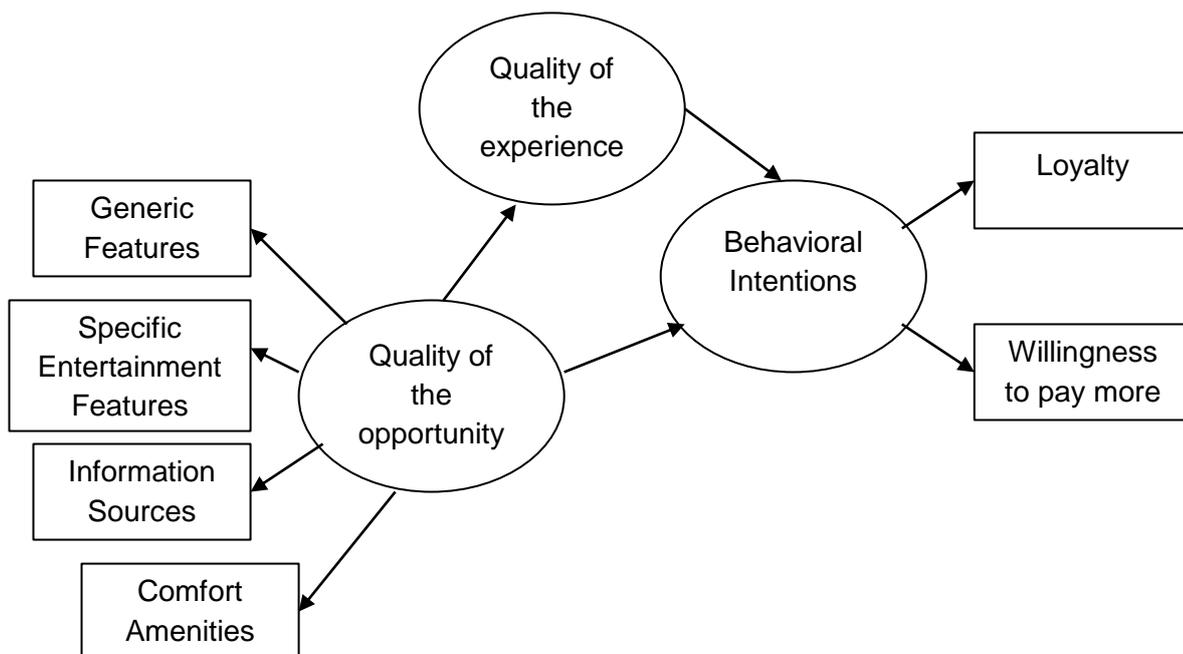


Figure 2: Framework from Baker and Crompton  
 Source: Baker and Crompton (2000:791)

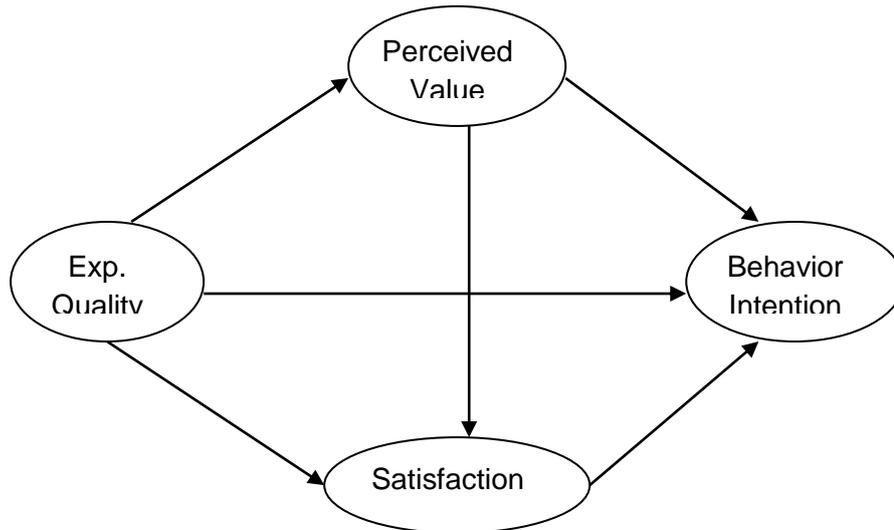


Figure 3: Framework from Chen and Chen  
Source: Chen and Chen (2010:30)

#### **Perceived Value as a Predictor of Behavior Intention**

Perceived value logically can be used as a predictor of behavior intention according to Ryu, Han, and Kim (2008); Murphy, Pritchard, and Smith (2008); Jin et al. (2015); and Chon (2006).

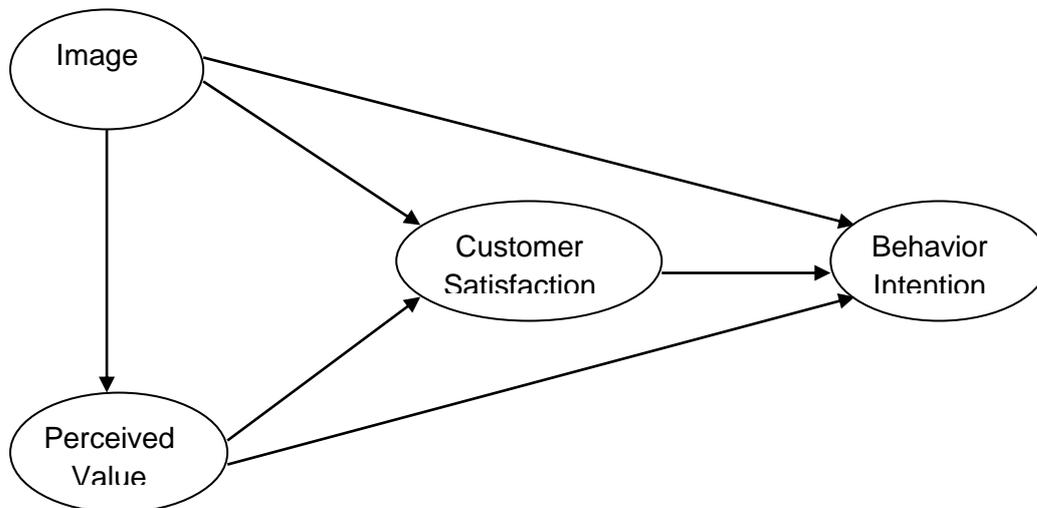


Figure 4: Framework from Ryu, Han, and Kim  
Source: Ryu, Han, and Kim (2008:463)

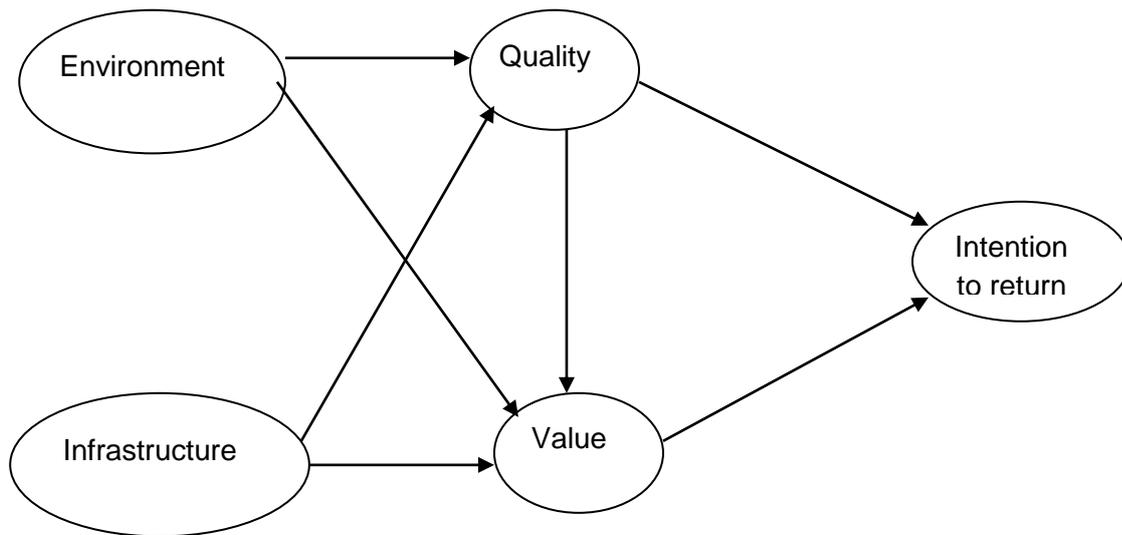


Figure 5: Framework from Murphy, Pritchard, and Smith  
 Source: Murphy, Pritchard, and Smith (2008:47)

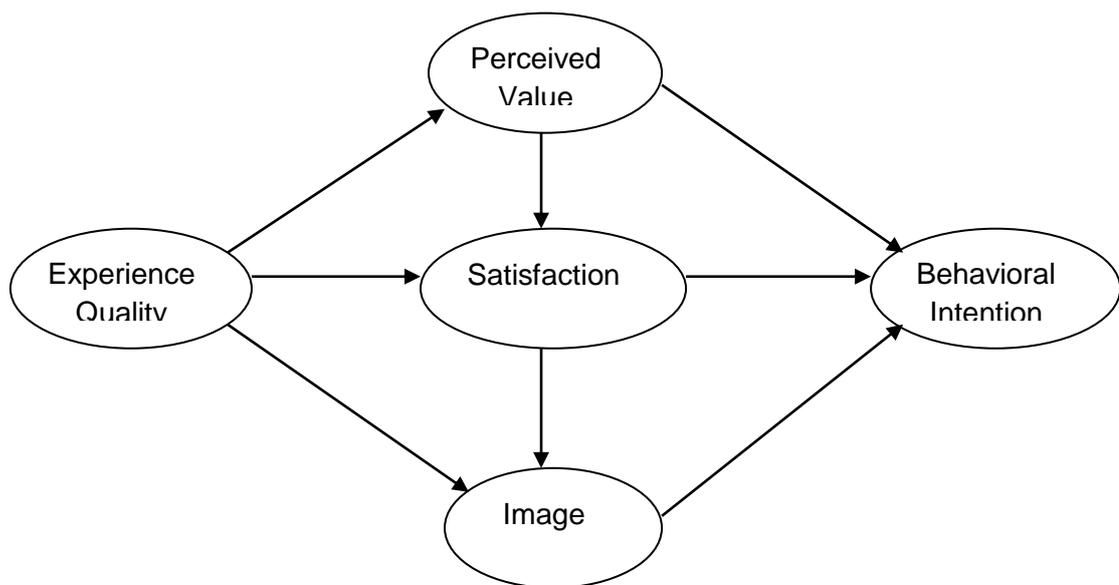


Figure 6: Framework from Jin et al.  
 Source: Jin et al. (2015)

**Destination Image as an Antecedent of Behavior Intention**

Destination image is another antecedent that can be used for behavior intention, especially in the tourism context. Chen and Tsai (2007) and Cheng and Lu (2013) showed that destination image significantly affects behavioral intention directly and indirectly.

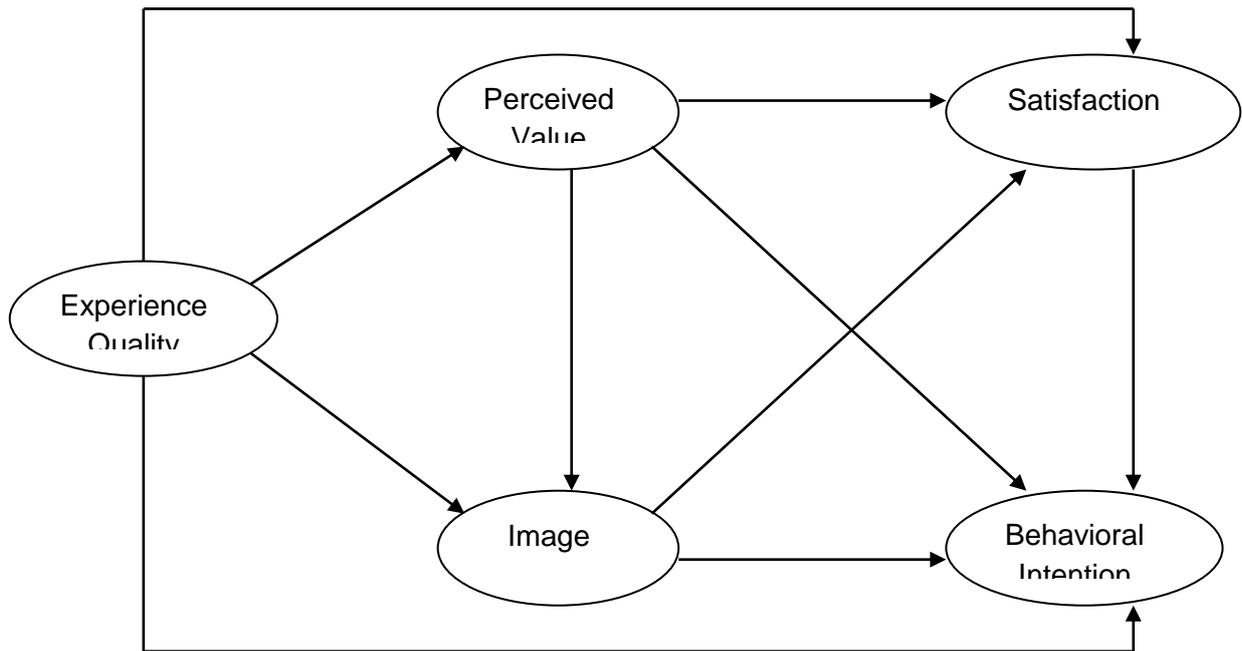


Figure 7: Framework from Chen and Tsai  
 Source: Chen and Tsai (2007)

Table 4: Summary of Hypothesis Testing Results

Source: Chen and Tsai (2007)

Path	Direct effect	Indirect effect	Total effect
Image → Trip quality	0.91	-	0.91
Trip Quality → Perceived Value	0.83	-	0.83
Perceived Value → Satisfaction	0.75	-	0.75
Satisfaction → Behavioral Intention	0.54	-	0.54
Image → Behavioral Intention	0.37	0.31	0.68
Trip Quality → Behavioral Intentions	-	0.34	0.34
Perceived Value → Behavioral Intentions	-	0.41	0.41

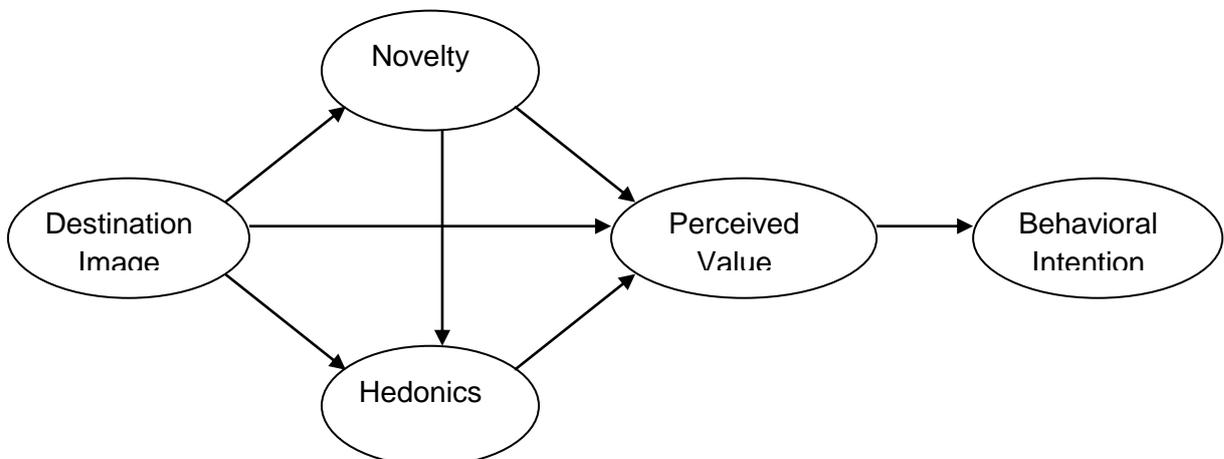


Figure 8: Framework from Cheng and Lu  
 Source: Cheng and Lu (2013)

Table 5: Summary of Hypothesis Testing Results  
Source: Cheng and Lu (2013)

Path	Structural Coefficients	S.E	t-Value	Test result
H1: Destination Image → Novelty	0.78	0.11	8.29	Support
H2: Destination Image → Hedonics	0.36	0.12	3.64	Support
H3: Destination Image → Perceived Value	0.23	0.14	2.43	Support
H4: Novelty → Hedonics	0.56	0.10	5.55	Support
H5: Novelty → Perceived Value	0.14	0.12	1.37	Reject
H6: Hedonics → Perceived Value	0.84	0.13	6.97	Support
H7: Perceived Value → Behavior Intention	0.81	0.07	13.73	Support

### Customer Engagement as an Antecedent of Behavior Intention

Customer engagement is rarely used in the tourism context. However, Harrigan (2017) used customer engagement as an antecedent of behavior intention.



Figure 9: Framework from Harrigan  
Source: Harrigan (2017)

### Discussion and Conclusion

Based on all the logical relationship from studies above, then the proposed framework is as shown below. For further research, hypotheses are needed to be developed as well as the hypotheses testing. Confirmatory Factor Analysis of SEM is recommended to examine this model, considering that the logical relationship of this model is developed from previous research.

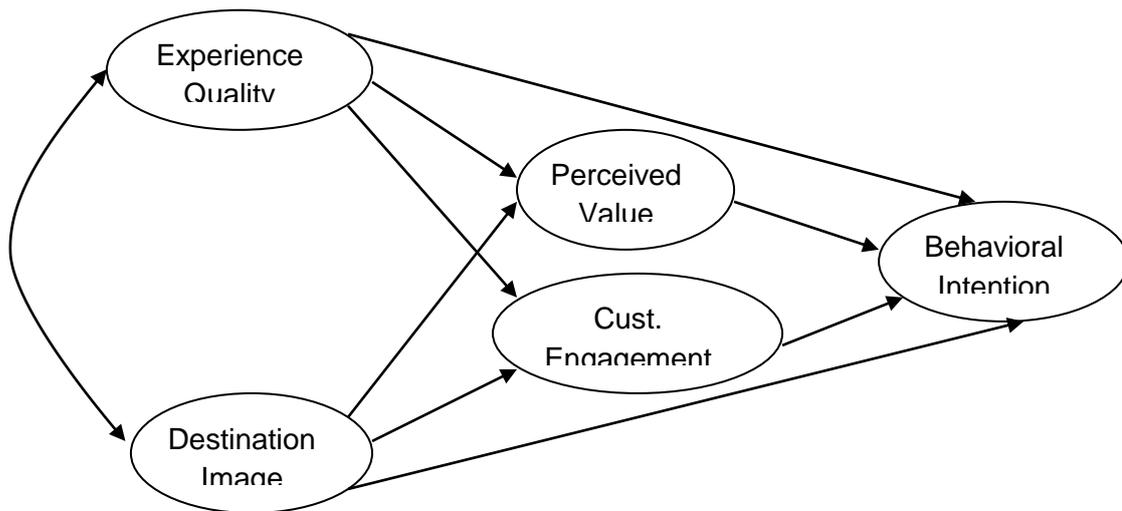


Figure 10: Proposed Framework

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# Predicting Financial Distress: A Case Study of Indonesia Coal Firms

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## Abstract

**Purpose:** Over the last few years, Indonesia's coal companies have been in a downturn due to falling coal prices and other issues. It will be affected the company's financial condition. Thus important for the firm to know the health condition of the company and take measures so to refrain from such condition. This research aims to predict coal firm financial distress and most accurate measurement method.

**Design/methodology/approach:** A total of consist of 17 coal listed firms in Indonesia Stock Exchange for the period of 2012 to 2016 to assess the coal firm's financial distress by using Springate, Grover, and Zmijewski model

**Findings:** The results show that third model produce different result in predicting coal firm financial distress. 47% coal firm predict have financial distress by using Springate, 18% using Grover and 12% using Zmijewski model. Refer to accuracy testing method, Grover model most accurate than other models

**Research limitations/implications:** The data observed only one industry and one capital market in short time period. A wider research sample, longer period, and more financial distress prediction model is needed in future to make better result and most accurate financial distress prediction model.

**Practical implications:** This research result can be used by firm management as information to solve firm financial problem and change business strategy in the uncertain world economic condition. Beside it, investors, creditors, auditors and other stakeholders can also be used as information.

**Originality/value:** This research uses coal listed firms in Indonesia and adopted Springate, Zmijewski, and Grover model to predict firms financial distress.

**Keywords:** Financial Distress, Springate, Grover, Zmijewski, Coal Firms

## Introduction

The world of business has changed dramatically during the past few years as a result of world economic slowdown that effect of domestic business like coal firms. Over the last few years, Indonesia coal listed firms performance have been decrease due to declining of coal production,

exports, and price. The fall in domestic coal production as a result of low domestic and overseas demand which drives coal export and price level move down. This condition will affect the decrease in the corporate income levels and potentially cause losses to the firms. Firm prolonged losses potentially push the company run into financial distress. Firm ability to pay off its debt determines firm financial distress degree (Gruszczynski, 2004). Financial distress prediction is important to listed companies, investors, creditors, auditors and other stockholders. Firm use financial distress analysis to prevent more serious problem and lead managerial to fix companies performance through managing its business strategy.

Financial distress prediction model raises after Beaver (1967) explained that financial ratios will used for predicting firm business failure. Research on financial distress prediction model increasingly since Altman (1968) published an article about the use of financial ratios to predict firm financial distress with developed Altman Z-Scores. A number of research and survey is trying to develop paths of the Altman's approach such as Springate (1978), Zmijewski (1984) and Grover (2001). These three models base on financial ratios of profitability, leverage, investment, activity and solvency. Sample, availability, quality of data and analysis method will figure model predictive ability and accuracy. Different characteristic of sample will give different result. That is why financial distress prediction model is still interesting and calling for further empirical research.

The goal of this study is to predict how many coal firms potentially run into financial distress and how many in a health condition by using Springate, Zmijewski and Grover model and find which one of the best model in predicting financial distress coal listed companies in Indonesia. Even though a number of studies have tried to explain these three models in predicting firm financial distress, but each models abilities are still controversial and different for different sample and research period, so it need to research again. This research may give to a better academic insight and financial literature into the role of predicting financial distress for coal firm listed companies during world economic slowdown and unstable of Indonesia economic condition.

This research is different from other studies. Firstly, this research uses coal listed firms in Indonesia. Most of earlier research conducted study at manufacturing companies, consumer goods, cement, mining industries, and syariah companies (Avenhuis, 2013; Husein & Pambekti, 2014; Yuliastary & Wirakusuma, 2014; Meiliawati & Isharijadi, 2016; Oktaviandri et. al. 2017; Gunawan et. al. 2017; Primasari. 2017; Januri et. al. 2017). There is no research conducted at coal firm listed companies specifically. Secondly, this research only uses Springate, Zmijewski, and Grover model to predict coal listed firm financial distress to get better prediction, because its develop from Altman model.

## **Literature Review**

### **Financial Ratio**

The detection on how the company operating and financial difficulties are a subject, which has been amenable to analysis with financial ratios. In fact, financial ratios have been a topic of a number of empirical studies over the past decades. Financial ratios are designed to help evaluate financial statement produce by the firms (Brigham & Daves, 2007). Financial statement displays all firm financial information for one period. Financial statement analysis covers comparing the company's performance with other companies in the same industry and evaluate trends and changes in the firm financial position over time to illustrate firm performance from period to period (Brigham & Houston, 2009).

The use of financial ratios as the basis for predicting firm financial distress continued to expand since the 1960s when Beaver (1967) prove the use of financial ratio to predict firm business failure through dichotomous classification test (Sarlija & Jeger, 2011). He used 79 failure and non-failure firms as sample and applies 30 financial ratios. The result indicates that the best

ratio to predict corporate failure was working capital to debt ratio and second net income to total asset ratio (Gameel & El-Geziry, 2016). Altman (1968) is the first person introduce financial distress prediction model by using multiple discriminate analysis (MDA) model and apply 22 financial ratios as independent variables. The result show that only 5 best ratio can used for prediction financial distress (Aminian, Mousazade & Khoshkho, 2016). Springate (1968) continue Altman research and take 19 financial ratio to recognize distress and non-distress firm by using audit analytics method toward 40 companies. The result explains that only 4 best ratio capable to predict healthy and bankrupt firms with 92.5% accurate predictions (Husein & Pambekti, 2014). Ohlson (1980) take 9 financial ratios to predict firm failure by using logistic regression to overcome the limitations of MDA model with 105 failed companies and 2.000 non failed companies as sample. The result show that the model able to predict firm failure about 85.1% precise (Jouzbarkand et. all. 2012). Zmijewski (1984) using leverage and liquidity ratio to develop firm financial distress prediction model by applying probit analysis with 81 bankrupt firms and 1.600 non bankrupt firms as sample. The result shows that financial ratio power uses in this model in predicting financial distress around 86.14% is accurate. Grover (2001) take 13 financial ratios to develop financial distress model with 35 failure firm and 35 healthy firms by using the same procedure with Altman for the period 1982 -1996. The result shows that only 3 financial ratio are capable to predict firm financial distress with accuracy rate more than 80% (Husein & Pambekti, 2014).

### **Financial Distress**

Financial distress begins when a company failed to meet payment schedule or when cash flow projections indicate that it will soon be unable to do so (Brigham & Daves, 2007). Financial distress experienced by a firm may cause the company going bankrupt if not anticipated earlier. In the way to make company survive, it's important for management to pay attention and analyze the company's financial statements by using financial ratios periodically. Financial statements show all information about financial condition of the firm in one period and describe firm condition in the future.

Firm deal with financial distress caused by many factors as mention by Brigham & Daves (2007), there are 4 factors which can cause the firm going through financial distress or bankrupt; economic factors, financial factors, neglect, disaster and fraud, and other factors. Most of business failures occur because a number of factors combine to make the business unsustainable. Financial distresses also happen as a result of a series of errors, misjudgments, and interrelated weakness that can be contributed directly or indirectly to the firm management. Sign of potential financial distress are generally evident in a ratio analysis long before the firm actually bankrupt. Brédart (2014) mention that lack of firm corporate governance also lead many firm going bankrupt and face financial difficulties.

A number of studies mentions that major predictors of financial distress are un-profitability (the more unprofitable of the firm, the higher chance of failing), debt (the higher use of debt in firm capital structure, the higher chance of default), cash flow difficulties (cash flow difficulties push the company difficult to reach external financing), Firm age ( the longer age of the firm, the lower chance of failure), firm size (also an inverse U-shaped effect on chance of moving in or out of financial distress), The legal status corporate shareholders (presence of corporate shareholders has a negative effect on moving into financial distress), multiple creditors (multiple creditors will help the firm run into financial distress), diversification (diversified firms are less likely of moving into financial distress) (Lennox, 1999; Kaiser, 2001). The factors of predicting financial distress are commonly represented by financial ratio uses in each of financial distress prediction model.

## Financial Distress Prediction Model

### Springate Model

Springate is a model basically expansion of Altman Z-score model that also using multiple discriminate analysis (MDA) to choose 4 ratios of 19 popular financial ratios in financial literature that able to distinguish between distress and healthy firm (Primasari, 2017). Springate combines the 4 ratios into an equation and creates different weight for each ratio. This model test result shows that Springate has a level of accuracy about 92.5%. Equation of Springate model as below:

$$S = 1,03 X_1 + 3,07 X_2 + 0,66 X_3 + 0,40 X_4$$

Where  $X_1$  is working capital/total asset (WCTA),  $X_2$  is earnings before interest and tax/total asset (EBITTA),  $X_3$  is earnings before tax/current liabilities (EBTCL), and  $X_4$  is sales/total asset (STA). In the way to evaluate a firm in distress or healthy condition, Springate model uses S score. If S score  $> 0.862$ , the firm is in healthy condition, otherwise if S score  $< 0.862$ , the firm predicting experiences financial distress (Prihantini & Sari, 2013).

Meiliawati & Isharijadi (2016) analyzes firm potential financial distress at cosmetics sectors listed in Indonesia Stock Exchange for the period 2012 - 2014 by using Springate and Altman model and shows that Springate model is most suitable and accurate in predicting cosmetic firms financial distress and can used as early warning by the firms. Permana, Ahmar, dan Djaddang (2017) also analyze financial distress prediction model to the manufacture companies listed in Indonesia Stock Exchange period 2006 - 2015 and found that Springate model is able to predict firm financial distress better than other models (Grover and Zmijewski) and most accurate.

### Zmijewski Model

Zmijewski model was developed by Mark E. Zmijewski in 1984 through his research for the period of 1972 - 1978 to the distress and non-distress firm with amount of population between 2.082 - 2.241 in a year and sample 81 distress companies and 1.600 healthy firms. In order to build a financial prediction model, Zmijewski uses financial ratio analysis in measuring debt performance or leverage, and corporate liquidity by using probit analysis. The financial ratios used in the Zmijewski model are return on asset ratio, debt ratio, and current ratio, each ratio is given different weight also (Husein & Pambekti, 2014; Gunawan, Pamungkas, & Susilawati, 2017). Formula for Zmijewski model as follows:

$$Z = -4,3 - 4,5X_1 + 5,7X_2 + 0,004X_3$$

Where  $X_1$  is earnings after tax/total asset (EATTA),  $X_2$  is total debt/total asset (TDTA), and  $X_3$  is current asset/current liabilities (CACL). Distress and non-distress firm is using Zmijewski model figure by Z score. If the company has a score greater than or equal to zero, the firm is potentially experiencing financial distress. Conversely, if a company has scored less than 0, the company is predicted in healthy condition (Gunawan, Pamungkas, & Susilawati, 2017).

A number of research mention that Zmijewski model is better than other model as research conducted by Husein & Pambekti (2014) to the listed syariah firms for the period 2009 -2012 with 132 sample, and shows that Zmijewski model capable to predict syariah firms financial distress and preferable than other model (Altman, Springate, and Grover). Another research performed by Gunawan, Pamungkas, & Susilawati (2017) towards manufacturing companies listed in Indonesia Stock Exchange at 2014 and found that Zmijewski model can predict firms financial distress better than other models and most accurate.

### Grover model

Grover financial distress prediction model is developed by Jeffrey S. Grover in 2001. This model is as a result of redesign and reassessment of Altman Z-score model. This model produces through a series of studies conducted by Grover towards 70 companies with 35

distress companies and 35 healthy companies composition for the period 1982 - 1996 by using 13 new financial ratios (Primasari, 2017). Amount of sample used by Grover same with sample taken by Altman. Grover model takes  $X_1$  (working capital to total asset ratio) and  $X_3$  (earnings before interest and tax to total asset) from Altman model, then add profitability (Return on Asset) ratio as new financial ratio. Formulation of Grover model as below:

$$G = 1,650X_1 + 3,404X_3 - 0,016ROA + 0,057$$

Where  $X_1$  is working capital/total asset (WCTA),  $X_3$  is earnings before interest and tax/total asset (EBITTA), and ROA is net income/total asset (NITA). Distress or non-distress firm decision in the Grover model is figures by G score. The firm is predict potentially has financial distress if G score less than or equal to  $-0.02$  ( $G \leq -0,02$ ), and the firm is predict in good condition if G score more than or equal to  $0.01$  ( $G \geq 0,01$ ) (Prihanthini & Sari, 2013; Gunawan, Pamungkas, & Susilawati, 2017).

Even though this model was extension of Altman model, a number of researchers found that this model was capable in predicting firms financial distress better than other financial distress prediction models as study conducted by Prihanthini & Sari (2013) against food and beverage listed firms in Indonesia Stock Exchange period 2008 - 2012 with 10 samples and found that Grover model is better than other model in predict food and beverage financial distress with reach 100% accuracy level. Next research performed by Oktaviandri, Firli, dan Iradianty (2017) towards agriculture listed companies for period 2011 – 2015, and shows that Grover model is superior than other model in predicting agriculture listed firms with accuracy level is 82.86%.

### Method

This study is explanatory research with a comparative approach. Comparative approach is a research approach to make comparisons across different method. In this research, each of method or models is self-sufficient for more than one samples and different times.

The data use for this research gathers from the official website of Indonesia stock Exchange. The data type is secondary data which is consists of financial statements and other related information such as company annual report, and statistic report. Researcher also takes information from other sources like articles, journals, text books, and etc. Coal listed firms in Indonesia stock exchange period 2012 - 2016 used as research population with samples were taken from 17 companies by using a purposive sampling technique.

This research uses independent t-test to analyze different result generated from three of financial distress prediction model used in this study with significance level 5%. In the way to evaluate accuracy level for each model, this study is using accuracy rate and error type formulation as below (Januri, Sari, & Diyanti, 2017):

$$\text{Accuracy level} = (\text{correct number of predictions} / \text{total sample}) \times 100\%$$

$$\text{Type error} = (\text{number of errors} / \text{number of samples}) \times 100\%$$

### Findings

Prediction of financial distress coal listed firms by using Springate, Zmijewski and Grover model shows that the amount of distress coal firm tend to fluctuate every year during a study period as seen in the below table.

Table 1: Financial distress analysis using Springate, Zmijewski and Grover model

Stock Code	Average Score of Springate	Prediction	Average Score of Zmijewski	Prediction	Average Score of Grover	Prediction
ADRO	0.980	Healthy Potential	-2.150	Healthy Potential	0.510	Healthy Potential
BUMI	-0.345	Bankrupt Potential	3.261	Bankrupt Potential	-0.546	Bankrupt
BYAN	0.134	Bankrupt Potential	0.147	Bankrupt	-0.004	Healthy
DEWA	0.172	Bankrupt Potential	-1.860	Healthy Potential	0.112	Healthy
DOID	0.629	Bankrupt Potential	0.844	Bankrupt	0.495	Healthy
GTBO	0.430	Bankrupt	-4.040	Healthy	0.377	Healthy
ITMG	2.071	Healthy	-3.287	Healthy	1.222	Healthy
KKGI	2.037	Healthy	-3.438	Healthy	1.056	Healthy
PTBA	1.886	Healthy Potential	-2.708	Healthy	1.165	Healthy
PTRO	0.675	Bankrupt Potential	-0.784	Healthy	0.509	Healthy Potential
ARII	-0.582	Bankrupt Potential	-0.185	Healthy	-0.776	Bankrupt
APTK	-0.113	Bankrupt	-1.391	Healthy	0.120	Healthy
BSSR	1.065	Healthy	-2.359	Healthy	0.439	Healthy
GEMS	1.217	Healthy	-3.055	Healthy	0.803	Healthy
HRUM	1.698	Healthy	-3.075	Healthy	1.230	Healthy
MYOH	1.682	Healthy	-1.881	Healthy	0.848	Healthy
TOBA	1.251	Healthy	-1.744	Healthy	0.548	Healthy

Table above showed that in average there are 8 firms potentially bankrupt (47.06%) and the rest is in good condition (52.94%) by using Springate model. Different results shows by Zmijewski model that there are 3 firms is predict experience financial difficulties (17.65%) and the rest is in healthy condition (82.35%). Then grover model shows that there are 2 firms potentially bankrupt (11.76%) and the rest is in good condition (88.24%) by using grover model.

The different financial distress prediction result between Springate and Zmijewski, Springate and Grover, and Zmijewski and Grover using Independent t-test shows the result as follow:

Table 2: Independent t-test result

Financial distress prediction model	t-test statistic	Sig. (2-tailed)
Springate and Zmijewski	5.107	0.000
Springate and Grover	1.611	0.117
Zmijewski and Grover	-4.508	0.000

Independent t-test results shows there is different financial distress prediction calculation proceeds between Springate and Zmijewski model, and Zmijewski and Grover model. Meanwhile, there is no different equation result between Springate and Grover model that means financial distress prediction for both of model are almost same.

The result of accuracy rate for each of predicting financial model shows that Springate model has a level of accuracy of 52.94%. Different result generated by Zmijewski model that figures a level of accuracy of 82.35%. Grover model gives more accurate result with level accuracy of 88.24%. Overall, Grover model is the most powerful model in predicting coal listed financial distress firm.

Table 3. Prediction of accuracy rate model

Prediction Result	Springate Model	Zmijewski Model	Grover Model
Potential Bankrupt	8	3	2
Healthy	9	14	15
Total	17	17	17
% Accuracy Rate	52.94	82.35	88.24
% Error Type	47.06	17.65	11.76

## Discussion and Conclusion

### Discussion

The number of companies experiencing financial distress is depends on the financial ratios used in conduct predictions. Springate model shows that there are 8 coal firms potential going bankrupt by using WCTA,EBITTA, EBTCL and STA ratio during research period. All financial ratios applied by Springate tend to decline throughout 2012 - 2016 due to world economic slowdown that effect coal production, export and price. Those financial ratios are starting to slightly raise at 2016, except for STA, still decline. That's why more coal listed companies predicted run into bankruptcy by using Springate model than others model. Zmijewski model shows that there are 3 coal listed firms potentially bankrupt, less than Springate model by using EATTA, TDTA, and CACL ratio during the observation period. EATTA ratio taken by Zmijewski model tends to decline for the period 2012 -2015 and slightly increased in 2016 due to increase in domestic and foreign demand. TDTA ratio tends to fluctuate as long as study period. Meanwhile CACL ratio tends to increase during studied period. Therefore, less coal listed firms predicted potentially bankrupt. Different from Zmijewski model, Grover model uses two similar ratio with Springate model are WCTA and EBITTA. Grover model adds ROA as more ratio in his model. Grover model predicts only two firms potential experience financial distress less than other models. All financial ratio used by Grover tends to fluctuate which allegedly effects predicted results.

Independent t-test shows that Springate model generates different prediction result with Zmijewski model and also Zmijewski with Grover as long as research period. The result different caused by different in financial ratios variables and coefficient apply in formula equation for each prediction model. Prediction results produced by Springate and Grover model is relatively same because the financial ratios variables used for each method is almost same. This research result not in line with research conducted by Husein & Pambekti, 2014; Januri, Sari, & Diyanti, 2017; Oktaviandri, Firli, & Iradianty, 2017.

Accuracy test proceeds show that accuracy level for each of financial distress result different. Most exact financial distress prediction model is Grover model with accuracy level about 88.24%. Highest accuracy level of Grover model indicates that its model relevant to predict coal firm's financial distress compared to other model. Current condition shows that all companies predicted run into bankrupt in this study still survive and no one going bankrupt. That means all of coal firms used as sample in this research surviving from economics turbulence and worse conditions. This success is certainly supported by well management solves the company's financial problems quickly. This research result in line with the result of Prihanthini & Sari, 2013; Oktaviandri, Firli, & Iradianty, 2017 research. This study result not

in line with research performed by Husein & Pambekti, 2014; Gunawan, Pamungkas, & Susilawati, 2017; Primasari, 2017; Permana, Ahmar, & Djaddang, 2017.

### Conclusion

The purpose of this study is to predict coal firm financial distress and most accurate measurement method. Equation result shows that there are 8 firms from 17 coal firms predict potentially bankrupt by using Springate model. Meanwhile, Zmijewski model point 3 companies predict going to bankrupt and Grover model predict only 2 firm's potential run into bankrupt.

Independent t-test shows that there are different calculation output generated by Springate and Zmijewski model and between Zmijewski and Grover model. Test result denotes that resulted Springate and Grover models have same prediction.

Accuracy test result shows that Grover model is most accurate than Springate and Zmijewski model. It signifies that Grover model more proper used by coal firms to predict their financial distress condition to anticipate companies going bankrupt with precise early handling.

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# Augmented Reality Technology (AR) as Alternative Media for Promotional Product

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## Abstract

**Purpose:** This research aims to create alternative media in promoting and marketing the products of The Royal Apartments, in the form of 3-dimensional applications (Augmented Reality).

**Design/methodology/approach:** System development, prototyping methods will be used as a model system development with the following process: Listening to customers, Design, Evaluation of prototypes.

**Findings:** The findings of this study can provide convenience for the marketing department of The Royal Apartments in promoting 3-dimensional products to customers.

**Research limitations/implications:** Business processes were observed in the marketing division of The Royal Apartment. More observations in the marketing department of the Royal Apartments are needed in the future to examine business processes in promoting and marketing products.

**Practical implications:** in short, it is very important for the marketing division of The Royal Apartments, especially as a tool that can facilitate the promotion of products from 2 dimensions into 3 dimensions, and finally customers can see the apartment form clearly and make customers interested in the products offered.

**Originality/value:** This research is expected to provide a different pattern as a means of promotion and marketing, which can facilitate the promotion and marketing of products, especially for The Royal Apartments can be more competitive in the property business.

**Keywords:** Apartment units, 3D, Augmented Reality

## Introduction

Property currently as one of the promising investment facilities, in recent years the increase in apartment construction has increased. Not only in Java, but some developments also occur outside Java and various other cities.

Increased property business in Indonesia due to rapidly increasing housing demand. This is one of the causes of many businesses in Indonesia that trigger property in the increasingly tight property business competition. The development of this sector cannot be separated from the intense promotion carried out by the apartment marketing department.

One solution that can be relied upon to promote apartments, with the use of information technology in the form of Augmented Reality applications, Augmented Reality is a technology that combines two-dimensional or three-dimensional virtual objects into a real three-dimensional environment and then projects virtual objects in real time.

The Royal Apartments is one of the companies engaged in property, the company's business process simply uses promotional media such as brochures with pictures of apartments in two dimensions, This method is less effective in attracting customers to promote products, as well as limited floor plans in brochures that make customers unable to see the apartment plan in detail, In addition, customers are asked to come to the location of the apartment to see more clearly the development plan apartments. Based on the description above, we recommend The Royal Apartments can utilize one of the information technologies such as the Augmented Reality Application to help promote their products

## **Literature Review**

### ***The Literature Augmented Reality***

Augmented Reality (AR) technology in a general definition is a combination of virtual objects with real objects. For example, currently a television station, broadcasting soccer matches, there are virtual objects, about the score of the ongoing match. Here are some definition of AR:

1. AR as being the opposite of virtual reality. Virtual reality immerses the user in a computer-generated world whereas AR combines the real world with computer graphics. In effect, AR brings the computer world to us. Unlike virtual reality, which requires specialist equipment to be experienced, AR requires only a way to capture the world around you and the means to experience the computer world (typically by overlaying computer graphics in the camera window). Because the requirements are minimal, many of today's smartphones are ideal AR devices (Madden, L. ,2011).
2. AR (augmented reality), is a technology that combines two-dimensional and / or three-dimensional virtual objects into a real three-dimensional environment and then projects these virtual objects in real time (Darmawiguna, I. G., & dkk, 2015).

Augmented reality technology opens new opportunities for industry players and the world of education to develop these technologies in their implementation in daily life.

### ***Principle of Augmented Reality Activity***

Principle of Augmented Reality Activity:

1. Augmented Reality system works based on the detection of images and images that are markers (Darmawiguna, I. G., & dkk, 2015).
2. The calibrated camera will detect the markers that are given, then recognize and mark the marker pattern, the camera will calculate whether the marker matches the database it has (Darmawiguna, I. G., & dkk, 2015).

If not, the marker information will not be processed, but if appropriate the marker information will be used to render and display the three-dimensional objects that have been created before. Markers are usually a black and white square illustration with a thick black border and white background, the computer will recognize the position and orientation of the marker and create a 3D virtual world that is point (0,0,0) and 3 axes namely X, Y, and Z (Madden, L. ,2011). In making a good marker, the image or image pattern has the following properties:

1. Rich in detail, for example, street views, groups of people, collages and more.
2. Have a good contrast, that is, have a bright and dark area, or dim.
3. There are no repetitive patterns, for example many boxes of the same size in one image or marker pattern
4. The image must be 8 or 24-bit with PNG format and JPG with a size less than 2MB. JPGs format must be RGB or GrayScale (not CMYK).

System development, prototyping methods will be used as a model system development with the following process:

1. Listening to customers: developers and clients meet and determine general goals, identification of needs and an overview of the parts that will be needed.
2. Design: the design is done quickly and the design represents all aspects of the software that are known, and this design is the basis for making prototypes.
3. Evaluation of prototypes: clients evaluate prototypes that have been created and used to clarify software requirements.

### ***Natural Feature Tracking and Detection***

Mobile phones are low performance platforms with very limited resources compared to computers. As a result, the limitations of cellphones in every aspect must be taken into account when developing an AR technology. In this method the information needed for tracking purposes can be obtained by optical-flow based matching templates or feature correspondence. One element of the applied natural feature tracking approach is based on a modified version of the SIFT and FERN descriptor features. SIFT is very good at extracting but processor intensive works because of computing, while FERN uses feature classification, which is fast but requires a large memory capacity (Madden, L. ,2011).

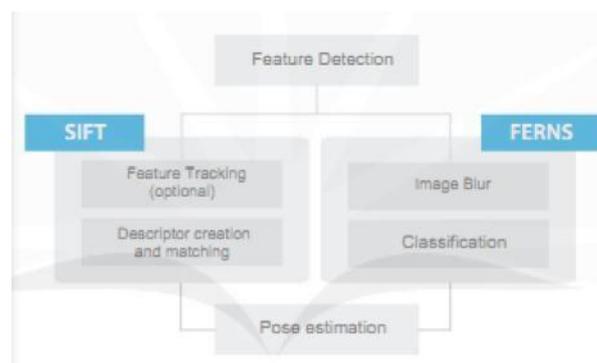


Figure 1: Flow of SIFT and FERN

### ***Development Kit***

So that in this final project research can be carried out and run smoothly, then the software is needed as follows:

1. Unity 3D  
Unity 3D is a cross-platform based game engine. Unity can be used to create a game that can be used on computer devices, smart phones android, iPhone, PS3, and even X-BOX (Sanjani, D. A., Crisnapati, P. N., Wirawan, I. M., & Darmawiguna, I. G. 2015).
2. Microsoft Visual Studio  
Is a complete software (suite) that can be used to develop applications, be it business applications, personal applications, or application components, in the form of console applications, Windows applications, or Web applications (Sanjani, D. A., Crisnapati, P. N., Wirawan, I. M., & Darmawiguna, I. G. 2015).
3. Google Sketchup 3D  
Google SketchUp is a software made by Google that works for graphic design, which can produce 3D images (Sanjani, D. A., Crisnapati, P. N., Wirawan, I. M., & Darmawiguna, I. G. 2015).

**Method**

**Listening to Customers (System Analysis)**

The problem found in the marketing division is the ineffective marketing media to promote every apartment offered to clients. Among others information about the catalog of the apartment in the form of two-dimensional incomprehensible by clients such as the shape of the room and the amenities provided.

**Design**

1. Use Case Diagram

Use case diagram is a functional requirement that is described from the point of view of a user of a system. Use Case answers the question of how actors interact with the system and describes the actions that will be carried out by the system.

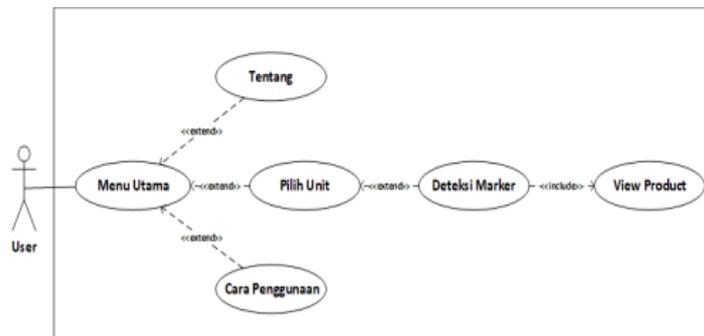


Figure 2: Use Case application diagram three-dimensional space plan

2. Class Diagram Tahap Analisis

The class diagram helps in visualizing the structure of the classes of a system and is the most widely used type of diagram. Class diagram shows the relationship between a class and a detailed explanation of each class in the model of a system.

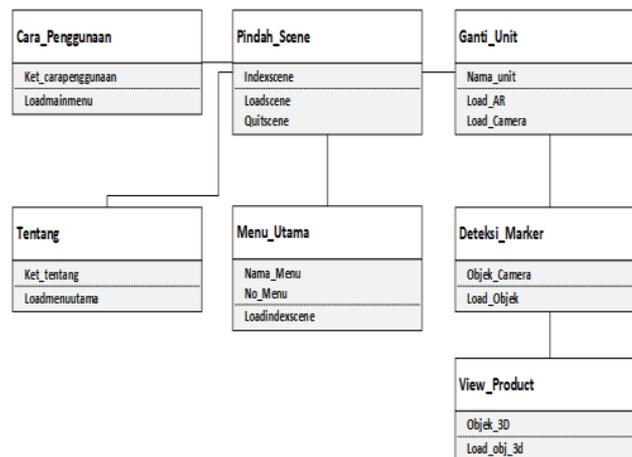


Figure 3: Class Diagram Analysis

### 3. Prototype Testing Final stage

Before the system is implemented in this final project, it needs to be tested. This test is intended to minimize the number of errors or system failures during system implementation.

Testing is done using blackbox testing method or also known as behavioral testing. Blackbox testing is a software testing method that tests the functionality or nonfunctionality of the system without knowing the internal structure of the module or program to be tested.

### 4. User Interface

The user interface is a user interface intended for application promotion kit three-dimensional floor plan room apartment



Figure 4: Main Menu Interface

The menu provides menus such as "start", "about", "how to use" and "exit".



Figure 5: About Menu Interface

Menu about this contains information on the apartment. the menu can be accessed by pressing a menu about the main menu page.



Figure 6: How To Use Menu Interface

How to use this menu contains information about how to use the application in detail that contains a marker. menu usage method can be accessed by pressing the usage method menu on the initial menu page



Figure 7: Start Menu Interface

A menu display category that appears when the start button on the main menu has been pressed. In this view the user is provided a menu such as select the unit and return.



Figure 8: Luxury Unit Menu Interface

The "Luxury" category menu display unit has three-dimensional sketches.



Figure 9: Penthouse 1<sup>st</sup> floor Unit Menu Interface

Menu display unit category "Penthouse 1st floor" there are three-dimensional sketches.



Figure 10: Penthouse 2<sup>nd</sup> floor Unit Menu Interface

Menu display unit category "Penthouse 2st floor" there are three-dimensional sketches.

**Findings**

In a period of 5 months, as many as 100 people have visited at the same time interested in buying an apartment at the promotion place of The Royal Apartements which are distributed in the three biggest shopping centers in the city of Bandung. Our enthusiasts differentiate by sex and age. while the promotional media that we use in promoting apartments uses more than one promotional media. enthusiasts based on sex consists of 42 people male and 58 female, sex enthusiasts differentiated into several age ranges: age between 25-29 years as many as 35 people, age between 30-39 years as many as 45 people , between 40-49 years old as many as 15 people and aged over 50 years as many as 5 people, while the marketing division of The Royal Apartements in the promotion as well as its product offerings using several media, including: brochures, pamphlets, flyers and utilization of information technology in the form of Augmented Reality ( AR).

Based on these data, out of 100 enthusiasts who buy apartments on The Royal Apartments which are the most interested in by age can be sorted as follows: range of 30-39 years old as 45%, age range 25-29 years as much as 35%, range age 40- 49 years as much as 15% and range of age > 50 years as much as 5%, while promotional media used to provide explanations or exposures to prospective buyers who contribute a lot to the sale of apartments can be sorted as follows: the use of 3-dimensional information technology (Augmented Reality ) 62%, Brochure 32%, Flyer 5% and Pamphlet 1%.

this can be described in accordance with table 1 below:

Table 1: Sample 1

Criteria	Category	Number	Percentage
Visitors (Gender)	Male	42	42%
	Female	58	58%
Visitors (Age Group)	25-29	35	35%
	30-39	45	45%
	40-49	15	15%
	>50	5	5%
Media Promotion	Brochure	32	32%
	Pamphlet	1	1%
	Flyer	5	5%
	Augmented Reality (AR)	62	62%

**Discussion and Conclusion**

Many factors can be used as a reference in determining the number of enthusiasts who buy an apartment at The Royal Apartments, one of these factors include: the use of promotional tools used in promoting and marketing apartments to prospective buyers, as well as The Royal Apartements, promotional tools that used in the form of brochures, flyers and flyers, this tool belongs to a 2-dimensional tool.

When the marketing department explains product details to prospective buyers using 2-dimensional tools, potential buyers have difficulty translating the 2-dimensional images shown and explained by The Royal Apartments marketing department, this is because not all prospective buyers understand and understand the 2-dimensional image in the form of a plan apartment that shows the facilities offered such as: banquet hall, family room, bedroom, bathroom etc., besides the prospective buyers are curious to see the original form of the apartment, this is one obstacle because many of the prospective buyers do not have much time

to see apartment buildings directly, so that this is one of the causes of potential buyers discouraging them from buying the product.

The Royal Apartements have the desire, how to explain the products offered to prospective buyers can be easily understood and understood by prospective buyers, not only that, prospective buyers are not required to come to the location of the apartment offered. This can be realized with the use of information technology in the form of augmented reality, the technology can show the details of the apartment plan and the facilities offered into 3 dimensions, so that prospective buyers are expected to understand the plans and facilities offered and not have to come directly to the location of the apartment.

It is expected that this research can be used in helping promote apartments at The Royal Apartements. the results of this study can also provide interactive visual information by displaying three-dimensional product designs that are interesting and easy to understand and can be used practically by everyone (age and general), this application uses Augmented Reality technology along with a marker that serves as a marker for display three-dimensional images. With this 3-dimensional product can be expected to provide more value while being able to have competitiveness for The Royal Apartements in promoting and marketing their products.

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# Financial Distress Indications in Mining Sector Companies in LQ45 in Indonesia

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## Abstract

The purpose of this study is to analyze indications of the influence of financial factors on financial distress in companies in the mining sector in LQ45. The variables used in this study are the current ratio (CR), debt equity ratio (DER) and Return on Assets (ROA). The sampling technique used in the study was purposive sampling with all samples taken in industries in the mining sector in LQ45 in Indonesia. The companies that were sampled were 5 (five) companies in the mining sector that had complete financial statements and were listed on the Indonesia Stock Exchange in 2013-2017. Statistical analysis tools used in the form of panel data regression analysis with Eviews program. The results of the study conclude that the method used shows that the independent variables used are the current ratio (CR) and return on assets (ROA) have a significant relationship to the indication of financial distress. While the Debt Equity to Ratio (DER) variable does not have a significant relationship in influencing financial distress. The contribution of independent variables to the model is 85.99% and the rest is influenced by other variabel.

**Keywords:** Current Ratio (CR), Total Debt to Equity Ratio (DER) dan Return On Assets (ROA), Financial Distress

## Introduction

Financial distress is a step in reducing a company's financial condition before a bankruptcy occurs. If greater debt compared with assets is an indication of the difficulty of funds to cover liquidity difficulties, which begins with minor difficulties to more serious difficulties,. Early recognition of the condition of a company that experiences financial distress is important to get information early before financial distress occurs. Financial distress in the company provides an opportunity for management, owners, investors, regulators and stakeholders to make relevant efforts. Management and owners have an obligation to make efforts to prevent more severe conditions towards bankruptcy. Investors have an interest in making investment or divestment decisions. Regulators such as the Capital Market Supervisory Agency and Bank Indonesia are required to conduct business supervision.

The bankruptcy prediction model that emerged was an anticipation and early warning system for financial distress. The model can be used as a means to identify and even improve conditions before a crisis or bankruptcy occurs. This condition can be caused by several financial ratios such as liquidity, solvability and profitability. Financial distress conditions can be recognized before they occur. Using the right bankruptcy prediction models, investors and other parties interested in analyzing financial difficulties are expected. Various analyzes were developed to predict the beginning of the company's bankruptcy. The ratio describes a

relationship or consideration (mathematical relationship) between a certain number and another number. By using an analytical tool in the form of this ratio will be able to explain or give an overview to the analyzer about the good or bad condition or financial position of a company, especially the comparison ratio figures used as standard.

Financial ratios are useful in predicting business bankruptcy for periods of one to five years before the business is truly bankrupt (Nasser & Aryati at Indri, 2012). Previous research from Syahidul Haq, Muhammad Arfan and Dana Siswar (2013) entitled Financial ratio analysis in predicting financial distress (a study of companies listed on the Indonesian stock exchange) states that current ratios, debt equity ratios and return on assets affect the likelihood of financial distress in some companies listed on the IDX. From Firman Ariangga, Erie Febrian, Farida Titik Kristanti (2018) entitled Analysis of financial distress, duet of delay of fertilizer subsidy payment by the government to fertilizer producers in Indonesia. In this study stated that Debt to Equity Ratio (DER) has a significant negative effect on the z-score as a financial distress indicator receiving fertilizer subsidies. If the DER score continues to increase, if it is not anticipated from the start it will bring the company into bankruptcy. Changes in earnings do not have a positive impact on the z-score as an indicator of financial distress.

### **Literature Review**

Financial distress is a condition of a company that experiences liquid but still in solvency. Following are the definitions of financial distress according to Palat and Plat, 2002, "Financial Distress or often referred to as financial difficulties, occurs before a person actually goes bankrupt. Financial distress is a condition that shows the stage of decline in the company's financial condition that occurred before the occurrence of bankruptcy or liquidity". According to Hanafi (2007:278), "Financial distress can be described as two extreme points, namely short-term liquidity difficulties to insolvability. Short-term financial difficulties are usually short-term, but can develop into severe. Indicators of financial difficulties can be seen from cash flow analysis, company strategy analysis and company financial statements." In this study financial distress will be measured using the Altman Z-score. This refers to several previous studies, including Altman, E. I., Iwanicz-Drozowska, M., Laitinen., E.K., and Suvas, A. (2014) in the title Distressed Firm and Bankruptcy Prediction in an International Context: A Review and Empirical Analysis of Altman's Z-Score Model. It was concluded that internationally the Altman Z-score model can be applied to almost all countries with an accuracy rate of 75%. According to Sofyan Syafri Harahap at Syaryadi (2012:8) Altman Z-score is also known as the Altman Bankruptcy Prediction Model Z-score. The understanding is that this model provides a formula for assessing when a company will go bankrupt. By using an interpellation formula with financial ratios, there will be known certain numbers to be material for predicting when the company is likely to go bankrupt.

### **Theoretical Framework and Hypothesis Development**

Researchers chose the Altman model to measure financial distress and predict bankruptcy. The variables used are suitable indicators for measuring financial distress. The Z-Score results can predict the bankruptcy of companies with more reliable accuracy and accuracy and have high accuracy.

The Z-Score model is a multivariate model of financial distress that has been developed in several countries. According to Hanafi (2003:274-276), Bankruptcy models have been developed in several countries. One problem that can be discussed is whether there are similarities in financial ratios that can be used for bankruptcy prediction for all countries, or have specificities. John (2010:241) stated that the company's inability to meet its current

liabilities was an extreme liquidity problem. This problem can lead to the sale of investments and other assets that are forced and lead to insolvency and bankruptcy difficulties. Lukman (2004:44) stating that there is no absolute provision regarding how many levels of current ratio are considered good or that a company must maintain because it usually depends on the type of business run by the company. The current ratio level of 2 is considered good.” Menurut Kasmir (2008:157) Total debt to equity ratio (DER) is "The ratio used to assess debt with equity. This ratio is sought by comparing the entire debt, including current debt with all equity. According to Keown (2008:88) states that the indicator that can be used as a measure of corporate profitability is ROA (Return On Asset) which is the return on assets used to generate net income of the company. According to Widarjo (2009:6) the ratio of high return on assets shows the efficiency of asset management, which means that the company is able to use its assets to generate profits from sales and investments made by the company. Based on framework, the research paradigm that can be made is

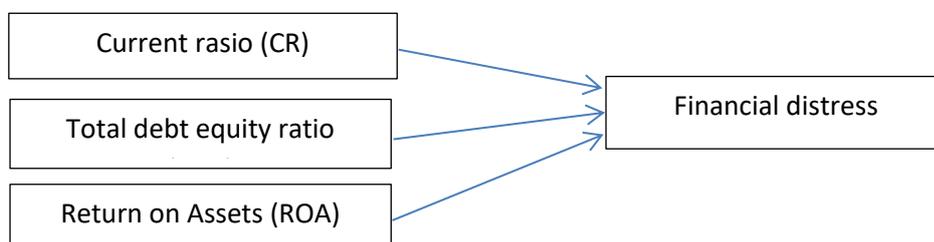


Figure 1: Theoretical Framework

The hypothesis used in this study is:

- H1: *current ratio, debt equity ratio and return on assets have a significant effect on financial distress*
- H2: *current ratio has a significant effect on financial distress*
- H3: *debt equity ratio has a significant effect on financial distress*
- H4: *return on assets has a significant effect on financial distress*

**Method**

The sampling technique used in the study was purposive sampling. The sample used was 5 (five) companies listed on the Indonesia Stock Exchange LQ45. Company criteria taken are:

1. Companies in the mining sector are listed on the Indonesia Stock Exchange LQ45 for the 2013-2017
2. Companies that have complete financial statements from 2013-2017

Table 1: Name of company in the Mining sector in LQ45

No	Name	Intial
1.	ADRO	Adaro Energy Tbk.
2.	BUMI	Bumi Resources Tbk.
3.	PTBA	Bukit Asam Tbk.
4.	ANTM	Aneka Tambang (Persero) Tbk.
5.	INCO	Vale Indonesia Tbk.

## Findings

Table 2: Conditions in the mining sector in Indonesia

Firm	Z score 2013		Z score 2014		Z score 2015		Z score 2016		Z score 2017		Conclusion
ADARO	1.65	Unwell	1.77	Unwell	1.86	Unwell	2.04	Unwell	2.46	Unwell	Unwell
BUMI	-0.55	Unwell	-0.92	Unwell	-5.38	Unwell	-1.86	Unwell	-1.27	Unwell	Unwell
PTBA	4.16	Well	3.51	Well	3.10	Well	3.10	Well	3.77	Well	Well
ANTM	2.27	Unwell	1.84	Unwell	1.79	Unwell	1.94	Unwell	1.67	Unwell	Unwell
INCO	3.30	Well	3.77	Well	3.97	Well	4.23	Well	4.40	Well	Well
Total	10.83		9.96		5.35		9.44		11.03		
Mean	2.17		1.99		1.06		1.88		2.20		
Max	4.16		3.77		3.97		4.23		4.40		
Min	0.55		-0.92		-5.38		-1.86		-1.27		

From the table above it can be concluded that in the mining sector registered in LQ45 that 3 (three) of 5 (five) companies are classified as unhealthy companies, namely PT. ADARO, PT. BUMI and PT. ANTM. The companies that are classified as healthy are PT. PTBA and PT. INCO. The model obtained from the calculation results using the eviews program is as follows:  

$$Y = -0.8753 + 0.0121CR - 0.0487DER + 0.0833ROA + e$$

se	(0.4178)	(0.0017)	(0.0316)	(0.0128)
t	(7.0369)	(-1.5428)	(6.4736)	

## Discussion and Conclusion

*The current ratio is a measure of a company's ability to meet its short-term debt using its current assets. The greater the liquidity ratio, the less likely the company will experience financial distress. This study aims to prove the benefits of financial statements in predicting company performance such as financial distress.* The results of research conducted show that liquidity is able to predict corporate financial distress. Based on the results of the study stated that the Current Ratio (CR) affects the Financial Distress. In accordance with the significant results of 7.0369, this result shows that the first hypothesis of H1 developed is accepted. Current Ratio (CR) affects the financial distress conditions of companies in the mining sector registered in LQ45. Means it can predict the company's financial distress. Liquidity is generally assessed from the ability of the company's ability to pay current debt with current assets. The results of the study show that liquidity has a significant effect on financial distress. Therefore, the company manages current debt with assets that are good enough so that financial distress does not occur.

*Debt to Equity Ratio of the company's ability to fulfill obligations both in the short and long term.* Based on the results of the study stated that the Debt to Equity Ratio (DER) had no effect on the Financial Distress. In accordance with the results of the level of significance level measurement of -1.542, this result shows that the first hypothesis of H1 developed is rejected. Debt to Equity Ratio (DER) does not affect the condition of Financial Distress companies in the mining sector registered in LQ45. Debt proxied by DER cannot cause a company to experience financial distress. This means that DER cannot predict a company's financial distress. The DER ratio shows how much the company's capital is financed by debt. The company in obtaining funding sources will choose a small risk source of funds. This will improve management so as to obtain high profits.

Return on Assets is the net final result of various policies and decisions which measures the company's ability to obtain profits from every sale of rupiah produced. Based on the results of the study stated that the Return on Assets (ROA) affects the Financial Distress. In accordance

with the significant results of 6.4736, this result shows that the first hypothesis of H1 developed is accepted. Return on Assets (ROA) affects the financial distress conditions of coal mining sub-sectors on the Indonesia Stock Exchange. This shows that a decrease in profitability causes the condition of the company to experience financial distress. This is because the ability to obtain higher corporate profits will affect good financial conditions so that financial distress will not occur. But for companies that have low profitability, they do not have the economic power that drives companies to experience financial distress. Means that profitability can predict a financial distress by the company.

Based on the results of the study stated that the Current Ratio (CR), Total Debt to Equity Ratio (DER) and Return On Assets (ROA) to the Financial Distress in accordance with the significant results of the F test results of 50.1037 and the determination coefficient is 0.8599. This means that the variables used have contributed to the model of 85.99% and 14.01% are influenced by variables outside the model.

Even though the z score shows that some companies are in an unhealthy condition, this does not reach the distress financial position. The results of research on financial distress indications in the mining sector conducted in 2013-2017 show that the current ratio (CR) and return on assets (ROA) affect the occurrence of financial distress indications in the sector. While the debt equity ratio (DER) variable does not affect financial distress indications in the mining sector in 2013-2017. The model is affected by 85.99% by variables in the model and the remaining 14% is influenced by other things outside the model.

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# **Student Motivation as an Impact of Campus Environment and Leadership Style: A Case Study of Business Community Development, Universitas Widyatama**

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## **Abstract:**

The purpose of this research is to get the result of study about work environment variable, leadership style, and work motivation variable of Business Community Development (BCD) member as well as to analyze the influence of work environment and leadership style on work motivation of Business Community Development (BCD) member. Methods of research conducted using descriptive-verification method. Population in this research is a member of Business Community Development (BCD) as many as 117 sample respondents obtained by using purposive sampling technique. Data collection was done by questionnaire, observation, and interview to get primary data. Statistical analysis was used using path analysis to analyze this research using SPSS and LISREL software. Based on the result of the research, it can be concluded that there is influence between work environment variable to work motivation of Business Community Development (BCD) member there is also influence between leadership style variable to work motivation of Business Community Development (BCD) member.

**Keywords:** Campus Environment, Leadership Style, Student Motivation

## **Introduction**

Students are someone who studies on the lecture bench by taking a preferred course as well as a department in which there is a high possibility to develop their talents. Of course, the higher students in studying in higher education will be more linear and specific to the science they are doing. One way to channel their interests and talents, many students follow campus organizations. In addition, other students who feel that the current organization is not in accordance with their talents and interests, then some of them took the initiative to establish a new organization that is able to accommodate their talents, interests, and potential by making and submitting proposals to Pema (Government Students) then addressed again to the campus to get a decree and authorize the establishment of an organization.

Universitas Widyatama is one of the campuses whose majority of students comes from business and management faculties. Therefore, many students from these faculties have interests and talents for entrepreneurship or business, therefore on November 27, 2008, the Student Research and Development Institute (LP2M) Widyatama University inaugurated the establishment of an organization called Business Community Development (BCD) which aims to be a means of developing a strong and accomplished entrepreneurial spirit and developing tasks to foster the academic community and students to have the knowledge, insight and basic experience of

entrepreneurship, however, they can cooperate with the industrial world. Business Community Development fosters and develops the interests, talents, and potential of its members by conducting research based on entrepreneurship science, providing education and training to create creative, innovative and professional members, increasing the active role of Business Community Development members in various business activities and become a Business Center for Widyatama University students.

The members have promised and signed a membership contract that they are willing to contribute in order to advance the organization in achieving the stated goals. Business Community Development is an organization that is directly supervised by the student research and development institute (LP2M) of Widyatama University, where Business Community Development functions as a means of student business incubator in entrepreneurship. The Business Community Development Secretariat itself is in Room C.102 Widyatama University, Jl. Cikutra 204A, Bandung. This organization is demanded to be able to conduct research based on entrepreneurship science, develop business units as a form of entrepreneurship implementation, and become a Business Center for students of Widyatama University. To achieve this, high motivation is needed by its members.

Today, Business Community Development facilitates the room with air conditioning (AC), provides a special space to discuss business by its members, as well as other equipment and supplies that support the creation of a good and conducive work environment however, it will increase the motivation of its member's inactivity. In addition, to increase the motivation of the work of its members is by implementing a system of issuing warning letters (SP) by the leaders to members who feel less active and less contribute to the progress of the organization. This is done solely in order to realize shared goals and ideals.

This study aims to test the influence of the work environment and leadership style on work motivation. It is hoped that this research can be an organizational guideline to support and facilitate the work environment however, it is conducive and it is also hoped that organizational leaders will be wise and have authority in leading however, they can increase the motivation of members in their activities.

## **Literature Review**

### **a. Work Environment**

According to Taiwo (in Josephine and Harjanti, 2017), the work environment is everything, events, people and others that affect the way people work. The work environment is a collection of physical and non-physical factors, both of which affect the way employees work. The situation in the workplace is a non-physical work environment, while people or equipment are physical work environments. An organization should identify various dimensions contained in the work environment however, members can understand every indicator that is in the work environment of an organization.

### **b. Leadership Style**

According to Rivai (in Amalia, Swasto, and Susilo; 2016), leadership style is a set of characteristics used by leaders to influence subordinates however, organizational goals are achieved. Robbins (in Darumeutia; 2017), mention that there are four types of leadership styles, namely as follows:

- Charismatic leadership style  
A leadership style triggers followers by showing heroic or extraordinary abilities when they observe certain behaviors of their leaders.
- Transactional leadership style  
Leadership styles guide or motivate their followers to set goals by clarifying the requirements of roles and tasks.

- Transformational leadership style  
 Leadership styles inspire followers to transcend their personal interests and are able to bring profound and extraordinary impact on the personalities of their followers.
- Visionary leadership style  
 A leadership style that is able to create and articulate a realistic, credible and interesting vision regarding the future of an organization or organizational unit that is growing and improving.

**c. Work Motivation**

Business Community Development in carrying out its functions and objectives requires human resources, in this case, the management and members of organizations that have high work motivation.

According to Reksohadiprojo and Handoko (in Safri; 2015), work motivation is a personal condition in someone who encourages an individual's desire to do certain activities in order to achieve a goal.

Motivation has a goal that can encourage someone to do a job in order to achieve maximum results, motivation goals. According to Hasibuan (2014), the purpose of motivation is as follows:

- Improve employee morale and job satisfaction
- Increase employee work productivity
- Maintain the stability of company employees
- Improve employee discipline
- streamline employee procurement
- Creating a good atmosphere and working relationship
- Increases loyalty, creativity, and employee participation.
- Improve employee welfare.
- Enhancing the sense of responsibility of employees for their duties.
- Improve the efficiency of the use of tools and raw materials.

**d. The relationship between Work Environment and Leadership Style against Work Motivation**

A good work environment must be supported by a leadership style that is authoritative and wise in leading its members. Ludiya (2017) in his research revealed that work environment have a positive and significant influence on work motivation. Then Alghazo, et. al (2016) found that there was a strong relationship between leadership style and employee motivation where the correlation was positive with transformational and negative styles with transactional style. Then in the study of Harianja (2014) revealed that there is a positive and significant influence between the work environment and leadership style on work motivation.

Based on the description above, the research paradigm can be described as follows :

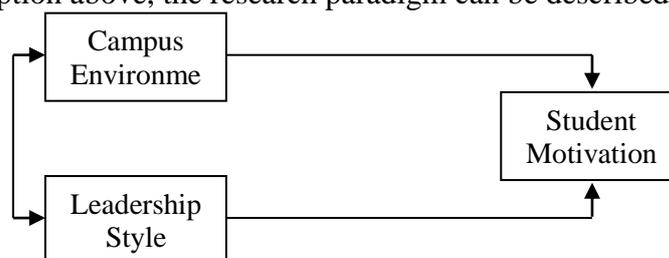


Figure 1: Research paradigm

### Hypothesis

The hypothesis in this study is as follows:

“Campus environment and leadership style affect student motivation”.

Meanwhile, the sub-hypothesis is as follows:

- a. Campus environment affect student motivation.
- b. Leadership style affect student motivation.

### Methodology

This research is an explanatory research. The data used are primary data obtained from observation, interviews and questionnaires. Secondary data in this study were obtained from books, journals, and the internet. The population of this study were members of Business Community Development (BCD) totaling 167 students. The sample in this study amounted to 117 students, where the purposive sampling method was used in this study. The analytical tool used to help solve problems is the path analysis using Lisrel 8.80 edition and SPSS.

### Findings

- a. Respondent Profile

Respondents in this study are members of the Business Community Development (BCD) organization. The research questionnaire was distributed to 117 BCD members. The result shows that most of the BCD members are majoring in business and management. This shows that only students from the program are interested in developing their abilities in business and entrepreneurship.

- b. Descriptive Result

### Student Perceptions on Campus Environment

Student perceptions regarding Campus Environment can be seen in the following table:

Table 1: Student Perceptions on Campus Environment

Indicator	%	Category
Privacy level of workspace	60	Less privacy
Easy level of communication	72	Easy
Workspace interior design	63	Not good
Complete facilities	64	Not complete
Available internet network level	57	Not good
Cleanliness and tidiness of the organizational environment	62	Less clean
The role of colleagues in completing tasks	72	Good
Familiarity with co-workers	73	Good
Openness in communication	66	Less open
<b>Average</b>	<b>65,4</b>	<b>Less supported</b>

From the table above, it can be seen that the overall campus environment is less supportive to be able to become an entrepreneur. This condition is caused by a lack of campus environment support related to wifi speed, the privacy of their place of creation, and the lack of other supporting facilities.

Even so, the ease of communication and support from fellow members to realize the desire for entrepreneurship is the positive side of the environment.

### Student Perceptions on Leadership Style

Student perceptions regarding leadership style can be seen in the following table:

Table 2: Student Perceptions on Leadership Style

Indicator	%	Category
Leader support to members	64	Less supportive
Relationship between leaders and members	65	Not good
The role of the leader in overcoming conflict	69	Good
Firmness of leadership	74	Good
Leadership skills in explaining tasks	67	Poor ability
Determination of work standards	67	Not good
Leadership policy in advising members	67	Unwise
Providing evaluation of work results	68	Not good
Intensity of discussion between leaders and subordinates	67	Less intense
<b>Average</b>	<b>67,5</b>	<b>Less supported</b>

Overall the leadership style in BCD does not support students who are BCD members to become entrepreneurs. This was due to the lack of support from the lecturer who was the head of BCD and the student of the BCD chairman in activities that supported this. They also lacked the example to become entrepreneurs because both the Head of BCD and the Chair of BCD were not entrepreneurs (not experienced as entrepreneurs), so they could not share in overcoming the problems faced by members when running a business.

This condition is also exacerbated by the lack of intensity of communication between leaders and members so that BCD members are often confused in carrying out instructions or activities that are charged.

### Student Perceptions on Their Motivation

Student perceptions regarding their motivation to be entrepreneur can be seen in the following table:

Table 3 : Student Perceptions on Their Motivation

Indicator	%	Category
Perseverance of members on duty	42	Not diligent
Level of enthusiasm on duty	55	Lack of spirit
Training efficiency	47	Not efficient
Effectiveness of development programs	47	Ineffective
Member responsibility	47	No responsibility
The direction of the members' goals follows the organization	45	Undirected
The level of happiness of the members on duty	50	Not happy
Member satisfaction in achieving achievements	43	Not satisfied
Feasibility of the award given	59	Less feasible
<b>Average</b>	<b>48,3</b>	<b>Unmotivated</b>

Students who are BCD members are also not motivated to become entrepreneurs. This is due to the lack of support and appreciation from the leaders and members of the BCD itself for every

progress of the business being carried out and the awards received for the business being carried out.

In addition, in every activity carried out and followed by BCD members, BCD members felt unhappy and enjoyed the activity. And even, training activities carried out to improve their competencies were also felt to be useless because they themselves were not comfortable with the training. This condition occurs because of the lack of consistency of the attendance of each member in the activities carried out. This also shows the irresponsibility of members to the organization. Therefore, every activity carried out becomes ineffective.

c. Hypothesis Testing

After calculating using Lisrel 8.80 version, the correlation between variables in this study is as follows:

Table 4: Correlation Matrix

Variable	Campus Environment	Leadership Style	Student Motivation
Campus Environment	1,000		
Leadership Style	0,614	1,000	
Student Motivation	0,510	0,661	1,000

The table above shows that:

- The correlation between campus environment and student motivation is 0.510. This shows that the correlation between the two variables is in the medium stage.
- The correlation between leadership style and student motivation is 0.614. This shows that the correlation between the two variables is strong.
- The correlation between campus environment and leadership style is 0.661. This shows that the correlation between the two variables is strong.
- The strong relationship between the influence of the work environment and leadership style is 0.614. This shows that the reciprocal relationship between the work environment and work motivation reaches 61.4 percent or in other words the level of the relationship between the two variables is being.

By using Lisrel 8.80 to calculate path analysis, the structural equation is as follows:

$$\text{Structural equation}$$

$$\text{Student Motivation} = 0.492 * \text{Environment} + 0.185 * \text{Lead}, \text{Errorvar.} = 0.604, R^2 = 0.396$$

Stand err	(0.0966)	(0.0966)	(0.0796)
Z-values	5,093	1,915	7,583

From the equation above, the hypothesis test is as follows:

Table 5: Hypothesis Testing

**a. Simultaneous Test**

Hypothesis	F <sub>count</sub>	F <sub>table</sub>	Result	Statistical Conclusion
Campus environment and leadership style do not affect student motivation	37.371	3.0718	Significant	H <sub>0</sub> rejected. Campus environment and leadership style affect student motivation

**b. Partial Test**

Hypothesis	t <sub>count</sub>	t <sub>table</sub>	Result	Statistical Conclusion
Campus environment does not affect student motivation	5.093	1.98	Significant	H <sub>0</sub> rejected. Campus environment affect student motivation
Leadership style does not affect student motivation	1.915	1.98	Not Significant	H <sub>0</sub> accepted. Leadership style does not affect student motivation

Simultaneous test results show that both variables have a significant influence on student motivation. However, when a partial test is performed for each variable, it is seen that only the campus environment has a significant effect on student motivation. Meanwhile, the leadership style has no significant effect on student motivation. This shows that in entrepreneurship, what is most needed is support from the campus environment because the desire for entrepreneurship comes from yourself. So that if the desire is strong enough to become an entrepreneur, then the leadership style of the other party becomes unimportant because everything is determined by themselves.

Because the leadership style has no significant effect on student motivation, it is recalculated to determine the effect on student motivation. Re-calculation is done using SPSS. The result is the following :

Table 6: Hypothesis Testing

Hypothesis	t <sub>count</sub>	t <sub>table</sub>	Result	Statistical Conclusion
Campus environment does not affect student motivation	7.941	1.98	Significant	H <sub>0</sub> rejected. Campus environment affect student motivation

The table above shows that campus environment has a significant influence on student motivation. And influence of that variable on student motivation can be seen in the following table:

Table 7: Variable Impact

	Coefficient	Impact	Residual Factors
Campus environment affect student motivation	0.595	0.354	0.646

The influence of campus environment on student motivation can be said to be low. This can be interpreted that the motivation of students to become entrepreneurs is less influenced by the campus environment.

### Discussion and Conclusion

The results of this study indicate that leadership style has no impact on student motivation in entrepreneurship. Campus environment even though has a significant influence but is not closely related to the motivation to become an entrepreneur. This means that the motivation to become entrepreneurs comes from the strong desire of the students themselves. This motivation is supported by previous entrepreneurial experiences, entrepreneurial mentors who should come from successful entrepreneurs, family support and much more.

Support from the campus environment can be used as additional motivation. As for what is needed support from campus is a means of creating, adequate wifi speed so that they can search for information that is useful for business development, communication and support from fellow students and organizational officials so that they feel comfortable in entrepreneurship and not ashamed to show it on campus.

Factors of self-competence, entrepreneurship experience, family support and internal motivation are alleged to be used as variables that can be examined in subsequent studies.

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# Interests Influence of Digital Marketing Product Sales in Exports by SMEs in Bandung

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## Abstract

The world has experienced a revolutionary new era, one of which is with the development of Digital Marketing. To increase the economic globalization in the worldwide market for the company, not least for the SMEs. Micro Small Medium Enterprises (SMEs) is the main activity that one of the Spearhead to answer the challenges in the national economy. One way for SMEs in Indonesia to grow is by expanding Reviews their product sales, one of them is through export. The purpose of this study is to determine the effect of digital marketing interest on sales of products by SMEs in Bandung. The samples used were 30 respondents from SMEs in Bandung City. The results showed that digital marketing was 83.5% of the sales interest of the products by SMEs in Bandung City and the remaining 13.5% was due to other factors that will be displayed in time.

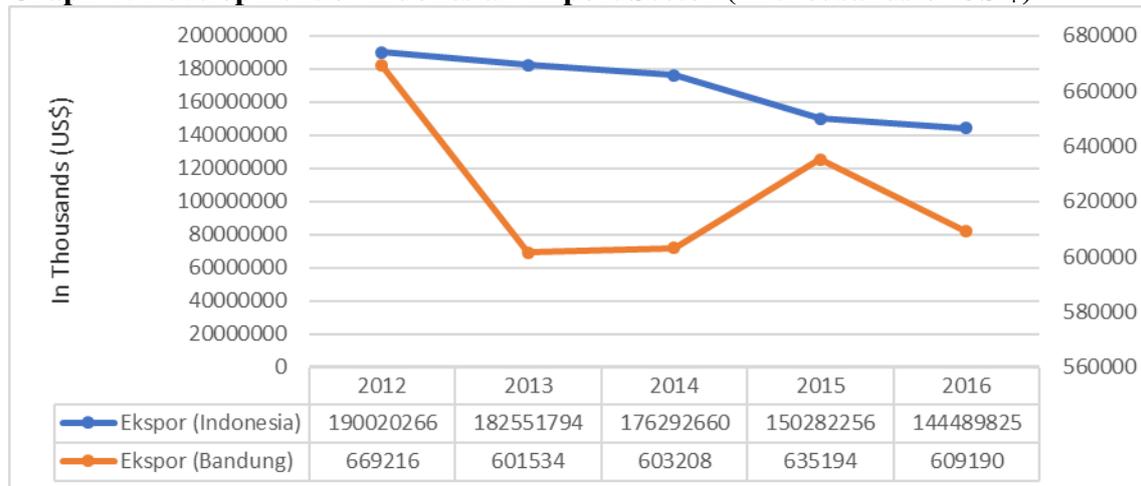
**Keywords:** Digital Marketing, Export Interest of Export Products, Micro Small and Medium Enterprises (SMEs)

## I. INTRODUCTION

The marketing world has entered a new era of revolutionary. To increase the globalization the world economy in the vast market opportunities for the company. This certainly causes competition for market participants in order to achieve better performance. At the time of effectiveness of traditional marketing communications has decreased, a new method in the marketing world experiencing significant growth. The new way is known as "digital Marketing or Digital Marketing "which combines factors - psychological factors, humanistic, anthropological, and technologist through the multimedia with large capacities and more interactive. The result is a new round of interaction between manufacturers, markets, and consumers, through the medium of technology (mobile) as the dominant element. Digital Marketing can simplify the process of marketing a product no longer hindered by obstacles such as distance, time and language. With the convenience offered by this too can make it easier for businesses to expand their business by utilizing Digital Marketing, through export activities.

Export is one of the important benchmarks to determine how much economic growth in a country. However, according to the data obtained, the development of Indonesian exports starting in 2012-2016 is not increasing and even vice versa. Based on the chart below, in the period 2012-2016, the value of Indonesia's exports continued to decline each year from 190,020,266.0 billion US \$ to 144,489,825.8 billion US \$ in 2016 ago

**Graph 1: Development of Indonesian Export Sector (In thousands of US \$)**



While the non-oil export growth data in Bandung itself has increased and decreased that is different every year. But generally, exports from Bandung itself tends to decrease, namely from the year 2012 amounting to 669,215,754.74 Million become 609.189.816.50 Million in 2016. At Bandung in 2017 to 2018, Department of Cooperative Micro, Small, and Medium Bandung continue to strengthen the sector - the cooperative sector, Wira Usaha Baru (WUB) and the development of cooperatives and micro, small and medium Enterprises. The Department of Cooperative Micro, Small, and Medium are as well as the Micro, Small and Medium Enterprises. Department of Cooperative Micro, Small, and Medium Enterprises empower and develop the work done by the entrepreneurs as well as providing facilities in the capital. As you know, access to and promotion of products made by entrepreneurs is quite less. Therefore, they will encourage the entrepreneurs to get a better market.

This is supported by the declaration of 100,000 movements Micro, Small and Medium Enterprises (SMEs) Go Online simultaneously in 30 cities/ regencies in Indonesia was initiated in line with the vision of President Joko Widodo to make Indonesia as Digital Energy of Asia. This movement aims to facilitate and provide opportunities for SMEs in the various areas to be ready to compete in the wider market. Ministry of Cooperatives and SMEs together with the Ministry of Communications is committed to online 8 million SMEs until 2020. This commitment shows the concern of the government in promoting SMEs as one of the backbones of the Indonesian economy.

In addition, the expected results of this study may be an additional knowledge to add insight and influence on the Role of Digital Marketing to the interest in export sales by SMEs and become a source of reference materials and the development of further research comparison.

## II. LITERATURE REVIEW

### A. Digital Marketing

While the non-oil export growth data in Bandung itself has increased and decreased that is different every year. But generally, exports from Bandung itself tends to decrease, namely from the year 2012 amounting to 669,215,754.74 Million become 609.189.816.50 Million in 2016. At Bandung in 2017 to 2018, Department of Cooperative Micro, Small, and Medium Bandung continue to strengthen the sector - the cooperative sector, Wira Usaha Baru (WUB) and the development of cooperatives and micro, small and medium Enterprises. Department of

Cooperative Micro, Small, and Medium is as well as the Micro, Small and Medium Enterprises. Department of Cooperative Micro, Small, and Medium Enterprises empower and develop the work done by the entrepreneurs as well as providing facilities in the capital. As you know, access to and promotion of products made by entrepreneurs is quite less. Therefore, they will encourage the entrepreneurs to get a better market.

Digital marketing is the marketing activities including branding using a variety of web-based media such as blogs, website, E-mail, AdWords, or social networking. Of course, digital marketing is not just talking about internet marketing (Ridwan Sanjaya & Josh Tarin, 2009: 47).

Marketers distinguish paid and owned media from paid media (or free). Including paid of media advertising, publicity, and other promotional efforts produced by the company. Paid media is all public relations efforts and word-of-mouth which is received by the company without paying anything directly, such as news, blogs, and social networking conversations associated with the brand. (Kottler & Keller, 2016: 637).

The dimensions of the digital marketing of the sale as part of the marketing mix (4Ps) by Ryan (2009: 31) that is:

#### 1. Website

The website is the link to the digital world as a whole - and perhaps the most important part in the overall digital marketing strategy, which the online activities will be directed directly to prospective customers.

#### 2. Search Engine Optimization (SEO)

One important part of the website is SEO (Search Engine Optimization), or the process of setting the content of the website to be easily found by Internet users who are looking for content that is relevant to what is on the website, and also present the content to be easily found by the engine - search engine.

#### 3. Paid search click-based advertising (PCC advertising)

PCC advertising (pay per click) allows the marketing purchase Internet search results pages based on keywords and keywords - phrases selected.

#### 4. Affiliate marketing and strategic partnerships (Affiliate marketing and strategic partnership)

Activity partner with organizations/companies and websites - websites is to achieve mutual benefits of cooperation to promote a product or service.

#### 5. Online public relations (Online PR)

Using the online communication channels such as press releases, article syndication (RSS), and blogs create a positive perception of the mark and/or to put the organization/company as the competent authority in a particular field.

#### 6. Social networking (Social Network)

A marketing opportunity, but now there is no one who can offer advertising system with a very focused to a very small group of people (niche) on the basis of the profile information obtained from the site - a social networking site.

#### 7. E-mail marketing (e-mail marketing)

Electronic mail (e-mail) is still an important tool for digital marketing activities, which are delivered with the aim to maintain the relationship between existing customers and prospective customers who are willing to receive information via e-mail.

## 8. Customer relationship management (Customer Relationship Management)

Keeping existing customers and establish mutually beneficial cooperation with them is one of the important elements of digital marketing activities.

Further, the four major categories of online marketing communication (or digital marketing), which discussed here are 1. The website, 2. Search advertising, 3. Display advertising and 4. E-mail. A wide selection of online communication means that the company can offer or send information or a customized message that engage consumers by reflecting their special interests and behavior.

With the website, the company must design a website that embodies or express purpose, history, products, and their vision and fascinating at first appearance and attractive enough to encourage repeat visits. An essential component of online marketing is a paid search or pay per click. Consumers are also influenced by online opinion and recommendations from other consumers. Informal social networks are increasing among consumers complete the network formed by the company's products.

Display ads or banner ad is a small rectangular box that contains text and images may be paid by the company to be placed on relevant websites. This allows consumers to see the products and offers from the company through search or display ads (display ads). In addition to display ads, e-mail allows marketers to inform and communicate with customers in a fraction of the cost of an email d-mail or direct mail, Email can be a highly productive sales tool.

An essential component of digital marketing is social media. Social media is a means for consumers to share information like text, images, audio, and video with each other and with the company, and vice versa (Kotler & Keller, 2016: 642). Social media allows marketers to build publications and online presence. They can cost-effectively strengthen other communication activities. Due to the daily grind of them, they can also encourage companies to remain innovative and relevant.

After reviewing the various social media platforms, consider how to use social media and how social media can promote the company's products indirectly. Similarly, the SMEs have in Bandung. They can use different types of social media platforms to support their marketing and business activities.

### *B. Sale*

According to Kotler and Keller (2008: 8) Sales is a social process managerial where individuals and groups obtain what they need and want, creating, offering and exchanging products of value with others.

Meanwhile, according to Moekijat "In the book Dictionary of Economic Terms" (2000: 488) is an active sales which aimed to find a buyer, influence and provide guidance however, buyers can customize needs with the products offered as well as an agreement on the price that is beneficial to both parties.

### *C. Export*

According to Amir MS (2008: 1), the export is an attempt to make the sale of commodities that we have on other nations to expect payment in foreign currency, as well as to communicate in a foreign language. It can be concluded based on some of the above theory that exports are transportation process good so commodity country to another country. Exports are also often done by companies with small to medium scale businesses as a key strategy to compete at international level.

### *D. Small Medium Micro Enterprises*

According to Rudjito (2003), SMEs are businesses have an important role in the economy of Indonesia, both in terms of jobs created and in terms of the number of its business.

To find out what kind of business that is being run need to pay attention to its requirements in advance. It is importantly used for future maintenance business license and also determines the amount of tax that will be charged to the owners of SMEs. Here is their definition of SMEs and criteria:

#### 1. Microbusiness

Definition of micro-enterprise is defined as productive economic enterprises owned by individuals and business entities in accordance with the criteria of microenterprises. Businesses that include criteria microenterprise is a business that has a net worth reached Rp 50,000,000, - and not including buildings and land were business. Proceeds from sales of micro businesses each year of Rp 300.000.000, -

#### 2. Small business

Small businesses are economically productive activities that are independent or stand-alone either owned by individuals or groups and not as a business entity branch of a major company. Controlled and owned as well as being part either directly or indirectly from medium-sized businesses.

Businesses that qualify as a small business is a business that has a net worth of USD 50 million, - the maximum needed to reach Rp 500.000.000, -. Proceeds from sales of businesses each year is between Rp 300.000.000, - to a maximum of Rp 2.500.000.000, -.

#### 3. Medium Enterprises

Definition of medium-sized businesses are the businesses in the productive economy and not a branch or subsidiary of the company as well as the center became part directly or indirectly to a small business or large enterprise with total net wealth is set up in accordance with the legislation.

Medium-sized businesses are often categorized as a large business with the criteria of net worth owned business owners reach more than Rp 500,000,000, - to Rp 10.000.000.000, - and not including buildings and land were business. Its annual sales revenue reached Rp 2.500.000, - to Rp 50,000,000,000, -.

Based on the theory that a portrait exposure digital marketing as an independent variable and interest in the product export sales by SMEs, it can be arranged framework as follows:

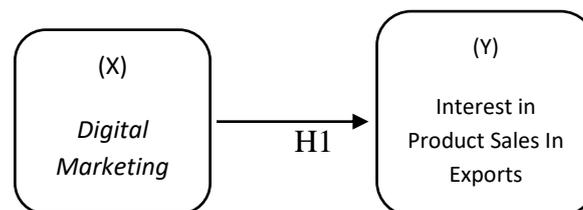


Figure 1: Research Paradigm

### Hypothesis

H1: Digital marketing significantly affect sales of products of export interest.

### III. METHODOLOGY

This research is used as a quantitative descriptive approach. This study analyzed by regression analysis was tested using SPSS. There is also the object of study as the independent variable (X) (Independent Variable) in this study, namely Digital marketing, then the problem of

research which is the dependent variable (Y) (Dependent Variable) that interest selling products exports by MSMEs in Bandung. The object of this research is the SMEs in Bandung. The population in this study was 300 thousand SMEs in Bandung (data from the Provincial Government of West Java in 2017). While the total sample is 30 people, is reinforced by the statement number Sugiyono (2014: 129) that a decent sample size in the study was among 30 to 500. The criteria for determining the sample used in this study is as follows:

1. SMEs are already using Digital Marketing and also have never done selling products exports.
2. SMEs located in Bandung.

In determining the data to be studied, the sampling techniques used were non-probability sampling is a sampling technique does not provide equal opportunity for each element or member of the population to be sampled. The sample selection was conducted for researchers to understand the information required and can be obtained from a specific target group that is able to provide the necessary information and they meet the criteria set by the researchers.

A score or value measurement technique used in this research is to use a Likert scale because this scale has a relatively high reliability. Likert Scale used to measure attitudes, opinions, and perceptions of a person or a group of social phenomenon. In research, this social phenomenon has been determined specifically by the researchers, hereinafter referred to as the study variables. Furthermore, the statement in the questionnaire adapted to the necessary variables, namely statements regarding the independent variable (X) Digital Marketing and then Interest in Product Sales In exports as the dependent variable (Y). As for managing the data, the authors used regression analysis, which is calculated based on the value obtained from the processing of questionnaires.

#### **IV. DISCUSSION**

Here is their definition of SMEs and criteria:

##### **1. Microbusiness**

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Respondents in this study were employees or owners of SMEs and its SMEs are also concerned that there is in the city of Bandung. The questionnaire has been filled by the male respondents as many as 15 people (50%) and female respondents as many as 15 people (50%). Thus, it can be stated that the number of women respondents and respondents man balanced, or as much. Respondent in this study aged 18-25 years as many as 18 people (60%), 26-40 years as many as 9 people (30%), > 41 years as many as 3 people (10%). Thus, it can be stated that the number of respondents aged 18-25 years more than other age ranges.

In addition to the classification of respondents by sex and age, SMEs respondents who have a turnover per month <10,000,000 as many as 17 SMEs (56.7%), Rp11.000.000 - Rp20,000,000 as much as 8 SMEs (26.7%), Rp21.000.000 - 50,000,000 as many as four SMEs (13 , 3%), > Rp51.000.000 as much 1 SMEs (3.3%). Thus, it can be stated that the majority of respondents SMEs have a turnover of <10,000,000 per month.

Furthermore, based on the results of Table 4 below, the form of the Standardized Coefficients regression equation as follows:

$$Y = 5.920 + 0.835 X$$

Digital Marketing regression coefficient of 0.835, meaning that if Digital Marketing increases by 1 scale in the respondent's answer, it will increase Export Interest by 0.835 units. This study demonstrates the value of t Digital Marketing amounted to 3.760 (significance 0.001). Based on the results obtained from the comparison Thitung with Ttabel the hypothesis that there is acceptable, because Thitung 3.760 > 1.701, so it can be concluded that the Digital Marketing a partial effect on the interest in selling products export of SMEs in Bandung.

Table 1: Results of t test

Model	Coefficients unstandardized		standardized Coefficients	t	Sig.
	B	Std. Error	beta		
1 (Constant)	5,920	2742		2,159	.040
X	.835	.222	.579	3,760	.001

a. Dependent Variable: Y (Interests Export)

Source: Sports Results SPSS Data

Significance level used in accordance with the provisions is 5% ( $\alpha = 0.05$ ). Based on the results of table 4:10 shows that the Sig. the variable X is 0.01, <0.05. Then there are appropriate conditions can be concluded that the variable X (Digital Marketing) has a significant effect on the variable Y (Product Sales Interests In Export).

The survey results revealed that the Digital Marketing variables affect the variable interest Product Sales In Exports amounted to 83.5% and 16.5% is more influenced by factors - other factors not examined in this study. In addition, the Digital Marketing variables affect the variable interest Product Sales In Exports which has a value of 83.5%, this result can be quite large and has the potential to be one measure of the development of SMEs in Bandung.

## V. CONCLUSION

With the influence of Digital Marketing to the interest of selling products exports by MSMEs studied in the city of Bandung, the perpetrators of Micro Small Medium Enterprises (SMEs) in Indonesia are advised to use various social media platforms or digital media for marketing activities business in accordance with their business units, This effort is not to develop business and maintaining business continuity in the all-powerful and without this limit. One of the efforts to develop the business by performing the expansion phase that started with selling products exports. By doing sales as exports, SMEs in Indonesia, especially in Bandung can promote products globally amid an increasingly competitive business competition.

Based on the results, it can be seen that the variable digital Marketing(X) has a positive effect on the variable interest in selling products export (Y) by SMEs in Bandung. In addition, this study also provides results that Digital Marketing variable (X) significantly affect the variable interest in selling products export (Y) by SMEs in Bandung. Digital Marketing variables affect the variable interest in selling products exports had a value of 83.5%, this result can be quite large and has the potential to be one measure of the development of SMEs in Bandung.

The component importance of digital marketing (digital marketing) is social media. Social media is a means for consumers to share information like text, images, audio, and video with each other and with the company, and vice versa (Kotler & Keller, 2016: 642). Social media allows marketers to build publications and online presence. They can cost-effectively strengthen other communication activities. Due to the daily grind of them, they can also encourage companies to remain innovative and relevant.

This is supported by the declaration of 100,000 movements Micro, Small and Medium Enterprises (SMEs) Go Online simultaneously in 30 cities in Indonesia was initiated in line with the vision of President Joko Widodo to make Indonesia as Digital Energy of Asia. This movement aims to facilitate and provide opportunities for SMEs in the various areas to be ready to compete in the wider market. Ministry of Cooperatives and SMEs together with the Ministry of Communications is committed to doing online 8 million SMEs until 2020. This commitment shows the concern of the government in promoting SMEs as one of the backbones of the Indonesian economy.

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# Lessons Learned to Increase the Digital Startups Success Rate

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## **Abstract**

**Purpose:** The purpose of this paper is to explore the lessons learned to increase the startups' success rate based on a case study in Selurup, a digital startup worked on food delivery services.

**Design/methodology/approach:** To systematically identify the lessons learned, this paper adopts the hypothesis-driven entrepreneurship framework. Guided by research questions described in the introduction section, the lessons learned are elaborated by using interviews with the co-founder.

**Findings:** Research in this paper ultimately suggests the emerging digital startups to follow the hypothesis-driven entrepreneurship framework as the structured approach to face the extreme uncertainty that typically faced by the startups.

**Research limitations/implications:** Research in this paper explores the lessons learned only from one startup. Consequently, the lesson learned might not represent all the startups in Indonesia.

**Practical implications:** It is expected that the lessons learned from this research can give a positive contribution to increase the emerging digital startups success rate.

**Originality/value:** This study academically explores the lesson learned especially from the emerging digital startups, following the hypothesis-driven entrepreneurship framework.

**Keywords:** Digital Startups, Innovations, Entrepreneurship, Digital-Economy

## **Introduction**

Indonesia is the largest digital market in Southeast Asia (Dailysocial, 2017). In 2017, Indonesia has 132 million internet users, 177 million unique mobile users, and 130 million active social media users (Dailysocial, 2017). {the growth rate}. In economic perspective, it is expected that the digital economy in Indonesia will reach 150 billion USD by 2025 (McKinsey, 2016). Along with the growth of the digital economy, the new innovative digital based business in Indonesia is growing rapidly. It is expected there are more than 2000 digital startups operating in Indonesia (Indonesia Investment, 2016). In 2017, the total disclosed investment for digital startups in Indonesia reached 3 billion USD, in which most of the investment, around 2.8 billion USD, goes to the three main unicorn startups: Go-Jek, Tokopedia, and Traveloka (Dailysocial, 2017).

According to the investment statistics mentioned above, there are big gaps between the unicorn startups and the emerging startups. Despite the blooming, significant failure rates are found for the emerging startups. It is reported that 70% of the startups are failed usually about 20 months after their first financial raising (CBInsight, 2017). There are many reasons need to be further investigated on why such a big percentage of failure rates has happened. However, it is certain that the startup's founders need to continuously learn and prepare to thrive in the competition. To increase the success rate of the startup, Eric Ries (2011) introduced a methodology that adopt lean concept in managing a startup, called lean startup. The methodology elaborates the fundamental activities of the startups in a feedback loop that consist of three main activities, namely build, measure, and learn. By using this methodology, it is expected that the startups able to find ways to eliminate unnecessary resource and efforts, that in the end able to help the startups to thrive in the competition (Ries, 2011). Aligned with the lean startup methodology, Eisenmann (2013) developed a hypothesis-driven entrepreneurship approach for the startups to maximizes the resources and resolving the uncertainty of the proposed business model. In this approach, the first thing need to be done by entrepreneurs is to translate their vision into falsifiable business model hypotheses, and then evaluates the hypotheses using a set of minimum viable products (MVPs) (Eisenmann, Ries, & Dillard, 2013). Afterward, the evaluation of the MVPs become the basis of pivotal action of the entrepreneurs, whether to persevere or to change the business model to achieved the product-market fit (Eisenmann, Ries, & Dillard, 2013).

As an effort to contribute in increasing the success rate of the digital startups, this paper identified the lessons learned that can be applied by the startups based on a case study in Selurup, a digital startup worked on food delivery services. To systematically identifies the lessons learned, the hypothesis-driven entrepreneurship approach is adopted. Further, the following are the research questions that guide this paper in identifying the lessons learned:

1. What has been done by Selurup in each process-steps of the hypothesis-driven entrepreneurship approach?
2. What are the challenges faced by Selurup in each process-steps of the hypothesis-driven entrepreneurship approach?
3. What are the things that should have done by Selurup in each process-steps of the hypothesis-driven entrepreneurship approach?
4. What are the lesson learned can be identified from the case study that can be applied by other startups to increase their success rate?

In practical perspective, the lessons learned identified in this paper is expected can be applied especially by the emerging startups to thrive in the competition. In academic perspective, this paper contributes to enrich the literature related to digital based entrepreneurship.

## **Literature Review**

### ***Lean Startup***

Lean startup originally came from the lean manufacturing concept, in which focusing on eliminating waste activities in a production system (Ries, 2011; Fullerton, Kennedy, & Widener, 2014). Applying the lean thinking concept into the entrepreneurial movement found to be relevant to help the emerging startups in accelerating innovation and increasing the success rate (Ries, 2011; Eisenmann, Ries, & Dillard, 2013). The core of the lean startup framework is a feedback loop to help the startups in delivering relevant products or services to their customers through real experiments. Shown in Figure 1, the feedback loop called the build-measure-learn feedback loop (Ries, 2011).

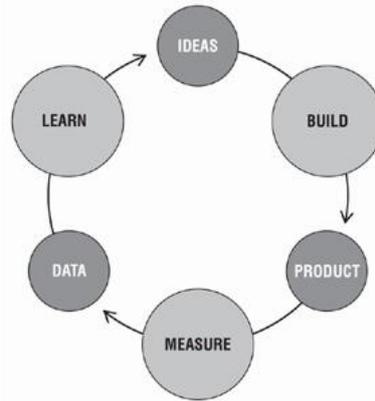


Figure 1: The build-measure-learn feedback loop (Ries, 2011)

Startups are facing the conditions of extreme uncertainty (Ries, 2011). In this regard, to be able to meet the customers need, the startups need to apply scientific method by identifying hypotheses to test (Ries, 2011). To this end, the first step of the feedback loop is to enter the Build phase as quickly as possible by translating the ideas into a minimum viable product (MVP). Secondly, in the Measure phase, the startups need to validate the product-market fit of their MVP. Finally, the startups have to identify the lessons learned from the Measure phase whether to pivot the original strategy or to persevere (Ries, 2011).

### ***Hypothesis-Driven Entrepreneurship***

Hypothesis-driven entrepreneurship framework is a systematic approach for the entrepreneurs in rolling up their startups with the goal to maximize the resources and resolving the uncertainty of the proposed business model (Eisenmann, Ries, & Dillard, 2013). Aligned with the lean startup methodology, the following are the 7 process steps of the hypothesis-driven entrepreneurship described by Eisenmann, et al. (2013).

- **Step 1: Develop a vision**  
This is the initial step of the entrepreneurs in building their startups. In this step, they must create a vision of the potential solution that they will offer to tackle the customers' problem (Eisenmann, Ries, & Dillard, 2013).
- **Step 2: Translate the Vision into Hypotheses** [1]  
The entrepreneurs have to translate their developed vision into business model hypotheses, in which will be tested through experiments to the real customers. The goal of this step is to identify activities that can deliver value to the customers and at the same time generate sustainable profits (Eisenmann, Ries, & Dillard, 2013).
- **Step 3: Specify MVP Tests**  
Minimum viable product (MVP) is the complete product with minimum features that sufficient to test the business model hypotheses. The goal of the MVP is to get valuable feedbacks for the real product that fit for the real customers with the minimum efforts (Eisenmann, Ries, & Dillard, 2013; Lenarduzzi & Taibi, 2016).
- **Step 4: Prioritize Tests**  
By having the business model hypotheses and the MVP, entrepreneurs should prioritize the tests to minimize the risk at the low cost. The tests can be done in parallel when the hypotheses are not serially dependent (Eisenmann, Ries, & Dillard, 2013).
- **Step 5: Learn from MVP Tests**  
In this step, the entrepreneurs analyze the feedback gained from the hypotheses tests of the MVP. One of the important things in this step, the entrepreneurs should be aware of the

cognitive biases when analyzing the hypotheses, which is the tendency to look the feedback in the way they expected to see (Eisenmann, Ries, & Dillard, 2013).

- **Step 6: Persevere, Pivot, or Perish**

Based on the evaluation of the MVP tests, the entrepreneurs have to decide whether to persevere, pivot, or perish. The entrepreneurs can decide to persevere when the business model hypotheses are considered to be valid. In this situation, their focus moves forward to scaling up the business. On the other hand, if the MVP test results reject the business model hypotheses, the entrepreneurs may choose to pivot, which is to change some elements of their business models. At the worst case, when the entrepreneurs found no pivot opportunity when the business model hypotheses are rejected, shutting down the business might be the reasonable option (Eisenmann, Ries, & Dillard, 2013).

- **Step 7: Scaling and Ongoing Optimization**

When the all business model hypotheses are validated, the startup can be considered to achieve product-market fit, which means the startup successfully offered the right product to the market. At this stage, the strategy is how to scale up the business, to put significant investment on customers acquisition and to acquired additional required resources to grow. When scaling up the business, the entrepreneurs should not stop utilizing the hypotheses testing. The purpose of the hypotheses testing is shifting from the business validation to the business model optimization (Eisenmann, Ries, & Dillard, 2013).

## **Method**

This paper aims to identifies the lessons learned from the life of Selurup, a digital startup working on food delivery services. The identified lessons learned is expected can positively contributes in increasing the success rate of the digital startups. To systematically identified the lessons learned, this paper adopts the hypothesis-driven entrepreneurship framework. Guides by research questions described in the introduction section, the lessons learned are elaborated by using interviews with the co-founder. With the interviews, the interviewer able to get a better understanding of the co-founder perspective on the life of the startup (Qu & Dumay, 2011).

## **Discussion and Findings**

### ***Background of Selurup***

Selurup is a startup that was working on online food delivery services. They provide a web-based portal, optimized for desktop and smartphone access, which allows users to get food delivered to their location by placing the order online. To place the order, first, the user need to identify their location by mentioning their street address. Based on the location, list of restaurants within the delivery radius is shown on the page. The user chooses the restaurant they preferred, placed the menu they like in the shopping cart, and finally, submit the order after confirming their delivery address. On the other hand, when the order is placed, Selurup's admin staff will get the notification of the order. Accordingly, Selurup will contact the restaurant partner to prepare the food, and then delivery fleet from Selurup will pick up the food from the restaurant and deliver to the user. Fig. 1 shows the screenshot of the web portal to give the illustrations of the ordering process in Selurup.

Selurup successfully landed the first investment in the mid of 2012 from an investor after previously pitched their concept into numbers of potential investors. Their first investment allows them to finalize their web portal, established an office, hires the staffs, and supports their daily operation. They officially started their public operation at the end of 2012 in Bandung. Experienced growth on the users and restaurant sides, at the end of 2013, they nominated as one of the finalists in the Indigo Incubator, a startup incubator program by Telkom Indonesia. Despite their interesting services and customer growth, they failed to secure the investment

from the Indigo Incubator. After struggling with the limited capital, they have to say goodbye to their customers in early 2014.

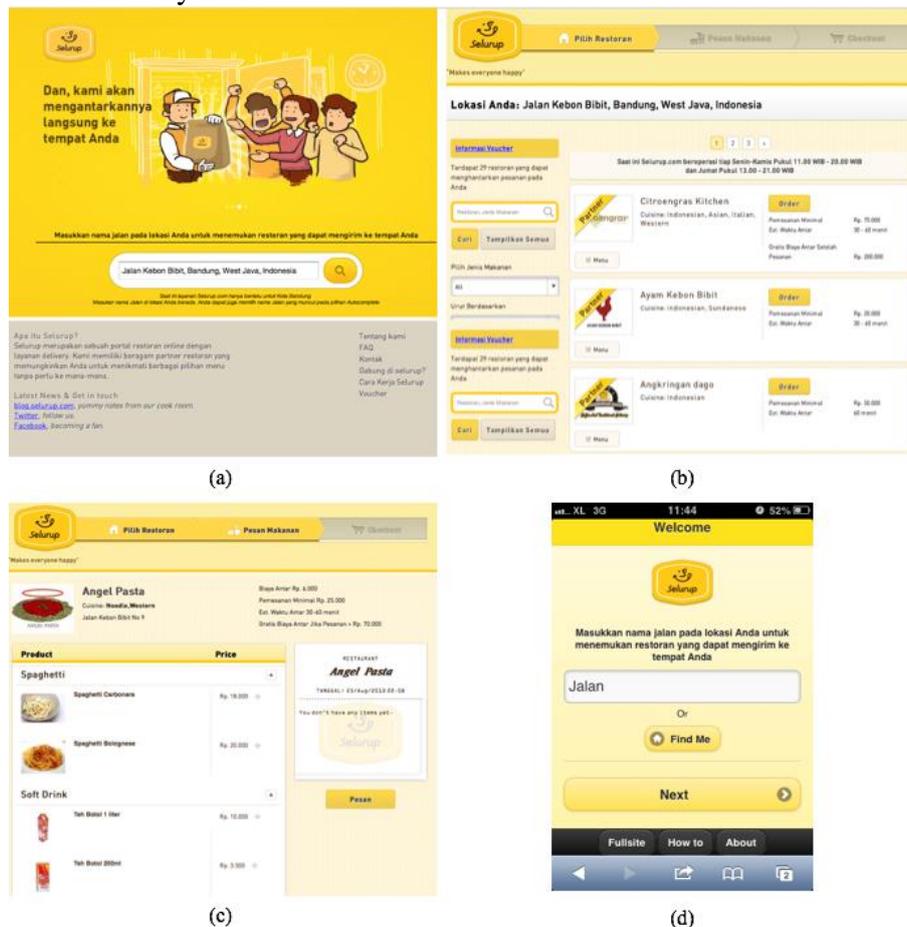


Figure 2: (a) welcome screen; (b) restaurants list; (c) menu list; (d) smartphone access

### Research Findings

In this section, this paper will elaborate the first three research questions, as describe in the introduction section, within each steps of the hypothesis-driven entrepreneurship framework to identify the lessons learned from the life of Selurup. Within each step, the research questions are the following:

1. What has been done by Selurup?
2. What are the challenges faced by Selurup?
3. What are the things that should have done by Selurup?

#### Step 1: Develop a vision

##### What has been done by Selurup?

The main vision of Selurup is to empower the nation through cooking. There are two problems try to solve by Selurup, on the demand side, and on the supply side. On the demand side, the identified problem is that there are people who are hungry and need food delivered to them, and on the other hand, on the supply side, there are restaurant entities that able to provide the food. To tackle the problems, at this stage, they planned to create a web portal that can connect restaurants in a single place and made the portal accessible to the customers. Basically, any entity can become a restaurant partner in Selurup. From a small entity like housewife into a big restaurant can be connected in Selurup and instantly open their virtual restaurant to a wide range of online customers. It is expected that the customers will use this online service because of the convenience and the usefulness (Yeo, Goh, & Rezaei, 2017).

*What are the challenges faced by Selurup?*

At this step, the main challenge faced by Selurup is the relevancy of their solution with the problems they try to address. Although they have the high-level key statistics of the demand for the solution, they didn't quantitatively measure the actual need for their solution in the market, both in the customers' or restaurants' sides.

*What are the things that should have done by Selurup?*

Considered as an ecommerce platform, Selurup should consider environmental factors in delivering their solution, which is the external factors in the area where the business operation is taking place (Ahmad, Abu Bakar, Faziharudean, & Zaki, 2015). In the case of Selurup, the environmental factors are including players in the market, willingness of the restaurants to become partners in Selurup, and the willingness of the customers to use Selurup's service.

**Step 2: Translate the Vision into Hypotheses***What has been done by Selurup?*

After sets up the vision, Selurup designed the business model to run the service. They developed 3 types of revenue models. The first is commission model. In this model, Selurup is expected to get 5% to 10% commission from each order placed by the customers. The commission is to be charged to the restaurants. The second is delivery fee model. In this model, Selurup will charge a delivery fee for each order they delivered to the customers. The delivery fee amount is based on the delivery distance taken by Selurup's delivery fleet in delivering the order. The third is ads model. In this model, Selurup is expected to charge the restaurants who are willing to get the premium position on the restaurants listing at the portal.

*What are the challenges faced by Selurup?*

At this step, Selurup actually did not design the business model to be validated, instead, they assumed the designed business model will work and profitable. The problem is, they actually did not have quantitative justification whether the business model will work on the real case or not.

*What are the things that should have done by Selurup?*

As suggested by the hypotheses-driven entrepreneurship framework, it is critical for the startups to translate their vision into the business model hypotheses that be tested in the real case in structural manner (Eisenmann, Ries, & Dillard, 2013). In this regard, it is suggested for Selurup to develop several business models to be tested, such that when the real service is deployed to the real customers, it is assured that Selurup's service will run smoothly and sustainable.

**Step 3: Specify MVP Tests***What has been done by Selurup?*

To translate their vision, Selurup developed a prototype of their service that represents the full cycle of their provided service. The main goal of the prototype is to be pitched to the investors. After several pitches to the numbers of potential investors, finally they landed the investment that allows them to develop the final version of the web portal, established an office, hires the staffs, and support their daily operations. However, at this step, the prototype they have developed is not intended to be a MVP.

*What are the challenges faced by Selurup?*

As Selurup did not specifically intended to developed a MVP, they actually faced the risk that the business model they have designed is will not 100% worked as they expected. This situation may threaten the sustainability of the service.

*What are the things that should have done by Selurup?*

Since startup is naturally facing the uncertainty conditions (Ries, 2011), to have a manageable risk, it is wise for Selurup to develop a series of MVP tests to ensure the product-market fit when the real product is delivered to the market.

#### **Step 4: Prioritize Tests and Step 5: Learn from MVPs**

*What has been done by Selurup?*

From the beginning, Selurup did not set up the MVP tests, however, in their journey, they do some tests with regard to the optimum marketing channel. As they have a very tight marketing budget, they have to choose between digital marketing through sponsored twitter or traditional offline marketing using banners. To test the most effective marketing channel, Selurup buy sponsored twitter package from one of the popular twitter account campaign in Bandung for limited period of time. Afterward, they did offline campaign by putting several banners in strategic spots in Bandung. Comparisons of these marketing channels show that digital marketing through sponsored twitter channel is far more effective in increasing the number of the orders, compared to the traditional offline marketing.

*What are the challenges faced by Selurup?*

Since Selurup did not design the MVP tests in structural way from the beginning, it is difficult for Selurup to have a structural way to test their business aspects along the way. This absent actually slows the progress of Selurup in growing their business.

*What are the things that should have done by Selurup?*

To have structural way in quantitatively monitor their progress and make sure that they are going in the right direction, it is recommended from Selurup to have a structural MVP tests from the beginning.

#### **Step 6: Persevere, Pivot, or Perish**

*What has been done by Selurup?*

After around one and a half years after in operations, Selurup experienced struggle with the limited capital they had. At that moment, the regular customers are still consistently ordering from Selurup, however, there's no significant customers growth. This situation happened because Selurup leaves a very limited amount of capital for marketing and their daily operations. Experienced failures in getting the next round investment, Selurup have to decide their next move: pivot or perish. At the end, after some considerations, Selurup decide to close their operation and say goodbye to their customers.

*What are the challenges faced by Selurup?*

At the "final" moment, the main challenges faced by Selurup is the limited capital, in which getting worse with no structured pivot strategies prepared.

*What are the things that should have done by Selurup?*

To survive in the market, Selurup should have pivot strategies. These strategies are prepared from the very beginning, by first develop several business model hypotheses in which will be tested by a series of MVP tests, following the hypotheses-driven entrepreneurship

framework. These structured activities are critically important, since without well-structured preparation, the failure is inevitable.

### ***Step 7: Scaling and Ongoing Optimization***

The step 7 excluded from the assessment since Selurup had no experience in scaling their business, because at the end, they failed to secure another round of investment, and have to close their operations.

### ***Lessons Learned***

Based on the elaboration of the research questions in previous section, the following are the lessons learned from the life of Selurup:

1. Startups have to carefully analyze the environmental factors when they develop a vision of potential solution. These environmental factors are including existing players in the market, willingness of required partners to collaborate, and willingness of the customers to use the provided services.
2. Startups need to be smart and agile, such that can adjust with the dynamics they facing in running their business.
3. It is recommended for the emerging startups to follow the hypothesis-driven entrepreneurship framework, to ensure they have structured approach in facing the uncertain conditions typically faced by the startups. Without the well-structured preparation, the failure is inevitable.

### **Conclusion**

This paper identified the lessons learned of the life Selurup, a startup worked on food delivery services. The lessons learned is expected can give positive contribution to increase the emerging digital startups success rate. The lessons learned are extracted by elaborating the research questions presented in this paper, within each steps of the hypothesis-driven entrepreneurship framework. Ultimately, the lessons learned suggest the emerging digital startups to follow the hypothesis-driven entrepreneurship framework as the structured approach to face the extreme uncertainty that typically faced by the startups. Further, it is recommended for future research to develop a framework that can provide guidance for the emerging digital startups, such that can increase the success rate.

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# Carhart Four Factors Asset Pricing Model on Index LQ 45 Period 2012 - 2016

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## **Abstract**

This study aims to determine whether the Carhart four factors model can explain the level of excess return of the expected stock. The population used are companies that are included in the LQ 45 Index, the largest and most liquid capitalized companies during the period of 2012-2016, as many as 20 companies with purposive sampling techniques and the analysis techniques used are multiple regression analysis. The test results show that market return, small minus big (SMB), high minus low (HML) and winner minus low (WML) have a significant effect on stock excess return, the effect is 79 %. The result of the partial test shows that the variable market return, small minus big (SMB) and high minus low (HML) have significant effect on excess return, while winner minus low (HML) has no effect on excess return. This means that investors can use the market value of return, small minus big (SMB), high minus low as one indicator to consider the excess return of stock which can then be used as a basis for decision making for investment. Whereas for companies with this research provide input in decision making for management in managing company fundamentals so that they can provide positive sentiment, this is done by paying attention to the variables in this study. For further researchers to take other factors, especially macroeconomic factors. This research is beneficial for investors, companies, and governments, with their policies and interests.

**Keywords:** Four Factors Model, Market Return, Size (SMB), Book to Market Equity (HML), Winner Minus Low (WML).

## **Introduction**

Growing economic conditions are important goals of a macroeconomic policy undertaken by the central government, which will have implications for the welfare of society.

Global economic slowdown started since 2012, although there is a slowdown in growth with an only non-significant number, even in 2012 and 2013 there was stagnancy. Meanwhile, the research conducted by Fauziyah (2013) shows that the variable of economic growth has a positive effect on the growth of Indonesia stock exchange. The data word bank shows that Indonesia's capital market has improved since the government decided to merge Jakarta Stock Exchange (BEJ) and Surabaya Stock Exchange (BES) into Indonesia Stock Exchange (BEI) or finally known as Indonesia Stock Exchange (IDX). that during the period 2006 to 2016 BEI able to record the growth of the market index of 194 %, the highest among the world's major exchanges. The good capital market performance is also reflected in the Jakarta Composite Index (JCI) at 6.05 %. JCI in the last 5 years is also able to record performance is good enough

with a return that reached 27.14 %. JCI that tends to move this positive, of course, also affects the performance of equity funds, which allocate the majority of its assets on stock instruments. Capital market will always be at risk if viewed from the investor's point of view. One of the important indicators for assessing the future prospects of the company is by looking at the comparison of the company's growth to the risks faced, companies that provide returns in accordance with the level implied investors. Investors certainly expect an advantage when doing an investment activity. The expected profit is derived from how much the rate of return to be obtained optimally. In some cases, however, there is a difference between returns received by the investor (actual return) and the expected return rate, so it is known that every investor cannot know exactly how much the return will be expected. Such circumstances show that in conducting an investment activity, investors will be at risk. According to Fahmi (2013) states that in financial theory it is assumed that when an investment risk rises then investors will expect higher expected returns, so it can be said that risk is an important factor in determining investment decisions. Here is a picture of the relationship between risk and return.



Source: Investment Industry Regulatory Organization of Canada (IIROC)  
 Figure 1: Risk and Return Relationships

Figure above shows that there is a positive relationship between risk and return, where risk is indicated by  $E(R_p)$  or expected return portfolio on the Y-axis and risk is indicated by the  $\beta_p$  or Beta portfolio on the X-axis. Meanwhile,  $R_f$  represents the rate of return on investment in risk-free assets with zero risks (0).  $E(R_m)$  or expected return market is the profit level of the stock market. When an investor engages in investment activities there are at least three basic factors in making an investment decision that consists of the first, the rate of return, a very reasonable thing if the investor demands a certain rate of return on funds that have been invested. Second, the risks to be faced, the direct correlation between returns with risk, namely: the higher the return, the higher the risk. Third, the time period (the time factor), investors can invest in the short term, medium term, or long term. The selection of the investment term is actually an important thing that indicates the expectations or expectations of the investors. Investors always select the period of time and return that can meet the expectations of return and risk considerations, this is described by (Singh et al., 2012).

Therefore, the researchers continue to conduct research and development of asset pricing model to get the best technique in selecting the portfolio that can provide the most optimal decision-making for investors. In this study selected the stock groups included in the LQ 45. Based on stocks listed in LQ 45 after being re-selected in accordance with established criteria, indicating that from 45 companies listed in LQ 45 in succession from 2012-2016 20 companies were selected. Although the stock in LQ 45 is included in the category of superior stocks, it is found that the majority of stocks generate negative returns respectively, as it has been stated that the LQ 45 index has high capitalization and high trading frequency so it should be the growth

prospect and financial condition of the stock good. The following is the excess return on 20 companies from 2012-2016:

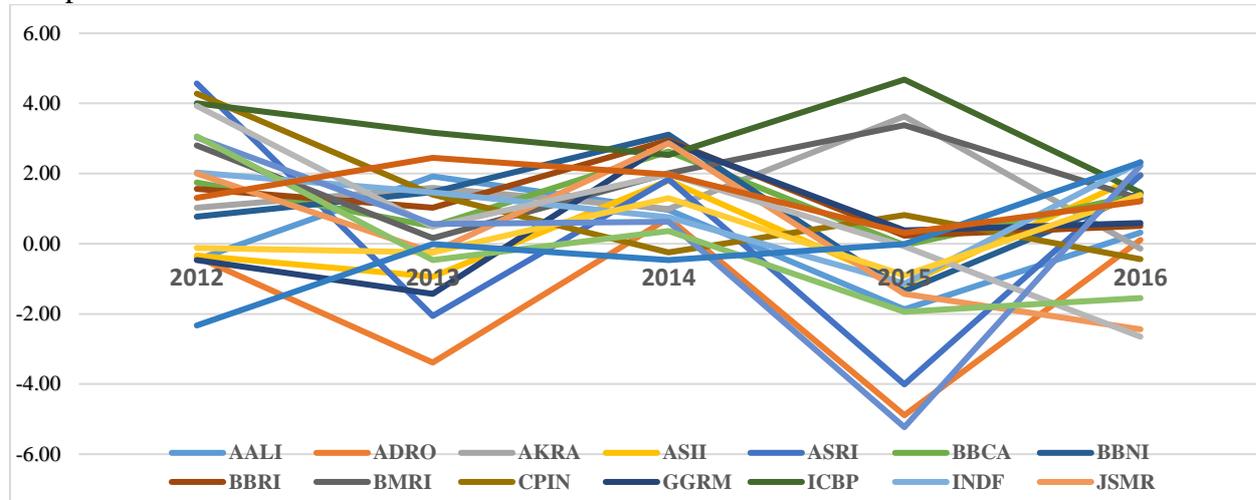


Figure 2: The Growth of Stock Return Period 2012-2016

Based on the graph, LQ 45 stock is an active stock so that it can constantly experience changes in stock prices and later affect the stock return. It can be seen in the above chart fluctuations in stock returns from 2012-2016. Out the 20 companies surveyed, there were 16 companies that resulted in fluctuating negative returns and 4 companies that generated positive returns regularly during the study period. This is because the stock return is influenced by the demand and supply of investors in investing.

In the investment portfolio, there is a model that is often used by investors in predicting the level of expected return. One model of Carhart (1997) developed the Fama and French Three Factor model research by adding one factor: momentum. Carhart (1997) says by adding a fourth factor that momentum will reduce the error pricing of portfolio returns. This is also supported by Wang's research (2005). However, research conducted by Mwalla (2010), Novak and Petr (2010), and Trisnadewi (2012) say that momentum has no significant effect on stock returns.

## Literature Review

### *Four Factors Pricing Model*

The model developed by Fama-French is considered to have the ability to explain more anomalies than the CAPM model. However, these factors cannot explain the short-term reversal pattern. The four-factor model in the work context begins with Carhart (1997), he found a year of momentum anomalies found in Jagadeesh and Titman (1993) describing portfolio performance in the model literature. Carhart added the momentum factor WML (Minus Loser Winner) in the Fama-French Three Factor Model. According to Carhart (1997) this model can be considered as a profitable performance model on this portfolio drawing factor indicating a corresponding return by four factors.

$$R_i(t) - R_f(t) = \alpha_i + \beta_i [R_m(t) - R_f(t)] + SMB(t) + HML(t) + WML(t) + e(t)$$

The four factors proposed in this model as variables that affect portfolio return are book to market equity and company size (size), there are HML (High Minus Low) and SMB (Big Minus Big) factors that generate and group stock returns. stocks that have books to the market high (H), medium (M) and low (L) and grouping of stock returns that have a small (S) and large (B) company size and plus WML (Minus Looser Winner) which is a momentum factor

which is the difference between return and circulation. This four-factor model is able to explain risk relationships and return more clearly in the long and short term.

### Method

The research method used in this research is an explanatory method. This research method aims to test the theory or hypothesis in order to strengthen the existing theory. Explanatory research is fundamental and aims to obtain information and data about things that have not been known. The calculation of statistical data is done using statistical data processing application (SPSS) with analysis of classical assumption test and multiple linear regression analysis. The population in this study are shares registered in LQ 45 period 2012 to 2016. Based on the list of shares in listed companies, LQ 45 is 45 companies. Company re-elected according to predetermined criteria, so the number of samples used as many as 20 companies.

### Finding

- **Multiple Regression Analysis Results**

Based on the results of multiple regression test in Table 2. obtained equation of results as follows:

$$Y = -, 511 + 0.375 X1 + 0.459 X2 + 0.425 X3 - 0.392 X4 + e$$

- a. Constants = -0.511 states that if the market return (X1), SMB (X2), HML (X3), and WML (X4) are equal to zero and there is no change, the excess return of stock (Y) is -0.511.
- b. The value of regression coefficient from market return (X1) is a positive sign of 0.375 which means that every 1 unit increase of market return (X1) will increase the excess return of stock (Y) by 0.375 unit.
- c. The value of regression coefficient of SMB (X2) is a positive sign of 0.459 which means that every 1-unit increase of SMB (X2) will increase the excess return of stock (Y) equal to 0,459 units.
- d. The value of regression coefficient of HML (X3) is a positive sign of 0.425 which means that every increase of 1 unit of HML (X3) will increase the excess return of stock (Y) 0,425 units.
- e. The value of regression coefficient from WML (X4) is negative as -0.392 which means that every increase of 1 unit of WML (X4) will decrease excess return of stock (Y) -0.392 unit.

- **Correlation Coefficient Test Results**

From Table 3. it is known that the market return (X1), small minus big (SMB) (X2), high minus low (HML) (X3), and winner minus low (WML) (X4) explain excess return (Y) variations by 79 %, the remaining 21 % is determined by other variables outside the model. In another sense, the four explanatory variables chosen by the researcher have been able to explain the variation of Y variables in large samples.

- **Hypothesis Test Results F**

From the F test in Table 4. it is known that Fstat is 8,931 while Ftable with 5 % significance level obtained Ftable equal to 2,47. In this case the Fcalculate (8,931) > Ftable (2.47) means that there is a significant influence between market return (X1), small minus big (SMB) (X2), high minus low (HML) (X3), and winner minus low (WML) (X4) simultaneously (together) against excess return (Y).

- **Hypothesis Test Results t**

1. Effect of market return (X1) on the excess return of stock (Y)

It is known that the value of t-calculate/t-stat is  $(2,163) > t\text{-table } (1,985)$ , hence it can be concluded that there is significant influence between market return (X1) variable to excess return of stock (Y).

2. The influence of small minus big (SMB) (X2) on the excess return of stock (Y)

It is known that the value of t-count/t-stat is equal to  $(1,988) > t\text{-table } (1,985)$ , thus it can be concluded that there is a significant influence between small minus big (SMB) (X2) to excess return.

3. The effect of high minus low (HML) (X3) on the excess return of stock (Y)

It is known that the value of t-calculate/t-stat is  $(2,201) > t\text{-table } (1,985)$ , hence it can be concluded that there is a significant influence between high minus low (HML) (X3) variable to excess return of stock.

4. The influence of winner minus low (HML) (X4) on the excess return of stock (Y)

It is known that the value of t-calculate/t-stat is equal to  $(1,155) < t\text{-table } (1,985)$ , hence it can be concluded that there is no significant influence between WML (X4) variable to excess return of stock (Y).

### Discussion and Conclusion

#### **The Effect of Market Return (X1), Small Minus Big (SMB) (X2), High Minus Low (HML) (X3), and winner minus low (HML) (X4) Against Excess Return of Stock (Y)**

From this research found that market return, small minus big (SMB), high minus low (HML) effect together to excess return of stock, a magnitude of influence is 0.790 or 79 %. This means that investors can use the market value of return, small minus big (SMB), high minus low as one indicator to consider the excess return of stock which can then be used as a basis for decision making for investment. Whereas for companies with this research provide input in decision making for management in managing company fundamentals so that they can provide positive sentiment, this is done by paying attention to the variables in this study. The government itself as a regulator in this research through related institutions can certainly supervise and socialize and intervene to issuers and markets in terms of management and regulation to facilitate issuers in accessing policies and create positive sentiment through Bank Indonesia so that the market is always in a stable condition and the Bank Indonesia must always maintain the International Investment Position (PII) Indonesia, because this will provide sentiment that can have a positive and negative impact on investors. The results of this study in accordance with research conducted by Susanti (2013) which states that simultaneously the overall variable of three factors Fama French is very large that is 99.8 %. In line with previous research studies conducted by Sigh (2015) resulted in the conclusion that three factor-asset pricing models Fama and French (1993) perform better for each portfolio.

#### **Effect of Market Return (X1) on Excess Return**

Based on the result of the partial test there is a significant correlation between market return (X1) to excess return of stock (Y). The result of positive test shows that investor can choose high-value market return because higher market return will be higher excess return is accepted by the investor, or it can be interpreted that a positive market return indicates that the market is bullish, which means that investors can take the decision to invest in the capital market. The higher the market return, the more sensitive the stock return to market changes. Companies with a high level of market risk means that the stock price follows the stock market activity. The higher the market return, the higher the volatility of the stock so that investors will ask for additional returns on the stock. This means that investors can use the market return value as an indicator to consider the excess return of stock which can then be used as a basis for decision making for its investment. The results of this study are in accordance with research conducted by Nur'ainy dkk. (2013) which states that market risk factors have the power to explain the rate

of return. Susanti (2013) also obtained the same result with this research that market return has a significant effect on excess return.

### **The Effect of Small Minus Big (SMB) (X2) on Excess Return**

Small minus big is measured using the proxy market value of a company that can be obtained from the calculation of stock prices multiplied by the number of shares issued (outstanding shares). Based on the results of partial testing there is a significant relationship between small minus big (SMB) (X2) on the excess return of stock (Y) so if investors as the owner of capital will do investment activities can pay attention to the value of small minus big (SMB). The test results that have a positive effect indicate that investors should choose stock from companies with small capitalization value because it will provide a higher excess return. Small companies tend to use their profits to expand their business. This causes the portion of retained earnings to be greater than the dividends distributed, so that small companies will have a higher share risk, therefore investors will ask for greater profits for companies with small firm size. The results of this study in accordance with research conducted by Research conducted by Lestari (2015) that SMB size has a positive and significant impact on expected return. Further research results Candika (2017) also resulted that the variable size (SMB) has a significant positive effect on the excess return of shares in 5 portfolios.

### **High Minus Low (HML) (X3) Effect on Excess Return**

Based on partial test results there is a significant relationship between high minus low (HML) (X3) on the excess return of stock (Y). Test results that have a positive effect indicate that investors should choose stock from companies with a high book to market value because high book to market value will give higher or better excess return for the investor. This is because in the high book to market condition (undervalued), the value of the company is considered low by investors. Therefore, companies with undervalued conditions have a higher risk so that investors will ask for additional benefits for these additional risks. Results of research conducted by Putri (2016) stated that market to book value (HML) has a significant positive effect on stock returns on consumer goods industry companies in Indonesia Stock Exchange. Research conducted by Candika (2017) resulted that the variable book to the market ratio (HML) has a significant positive effect on the excess return of stock.

### **The Influence of Winner Minus Low (WML) (X4) Against Excess Return**

Based on the partial test results there is no significant relationship between winner minus low (HML) (X4) against excess return of stock (Y). Negative test results show that investors in choosing a stock should not pay attention to winner minus low (HML). This shows that investors do not respond positively to stocks that have been shown to perform well in the past which is characterized by the absence of buying activities in stocks that show a positive return, meaning that investors do not expect too high on stocks that show performance well, this can be caused by unstable market conditions or the fundamental condition of the economy that is growing with a slowdown. The results of research conducted by Mwala (2010), Novak and Petr (2010), and Trisnadewi (2012) said that momentum or winner minus low (HML) (X4) has no significant effect on stock return.

### **Conclusion**

1. Based on the test can be concluded that the market return (X1), small minus big (SMB) (X2), high minus low (HML) (X3), and winner minus low (HML) (X4) have significant effect on excess stock return (Y) on shares in the LQ 45 index for the period 2012-2016.
2. Based on the partial test result that there is a significant correlation between market return (X1) to excess stock return (Y) on stock in index with the period 2012-2016 positive

direction LQ 45, this indicates that market return has the positive and significant influence to return stock.

3. Based on the partial test results there is a significant correlation between small minus big (SMB) (X2) to excess stock return (Y) on stock in index with period 2012-2016 positive direction LQ 45, this indicates that small minus big (SMB) has a positive and significant effect on returning the excess stock.
4. Based on the partial test results that there is a significant relationship between the high minus low (HML) (X3) on excess return on stock (Y) on stocks in the index with period 2012-2016 LQ 45 direction is positive, this indicates that high minus low (HML) has a positive and significant effect to return the stock.
5. Based on partial test results that there is no significant relationship between winner minus low (HML) (X4) on excess return on stock (Y) on stocks in index with period 2012-2016 LQ 45 direction is negative, this indicates that winner minus low (HML) (X4) has a negative effect to return the stock.

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# Building a Conceptual Framework for Recruitment Process

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## Abstract

**Purpose:** This article aims to propose a number of propositions regarding applicants' perceptions of information sources in the recruitment process (website and interaction with interviewers).

**Design/methodology/approach:** -

**Findings:** Applicants obtain information from each stage of the recruitment process, from the website to the recruiter's behavior. This article proposes integration recruitment process and seven propositions that can be used to test empirically by adopting signaling theory and elaboration likelihood models.

**Research limitations/implications:** Empirical studies will have challenges because they require longitudinal designs, involve applicants and recruiters as respondents.

**Practical implications:** The framework developed is expected to contribute conceptually to the recruitment literature in understanding the effect of the recruitment process on the applicant's decisions.

**Originality/value:** This study proposes propositions regarding the recruitment process from the perspective of applicants and interviewers using signaling and elaboration likelihood models. Proposition is part of the integration of the recruitment process as a result of the elaboration of the literature review.

**Keywords:** Recruitment, Signaling Theory, Elaboration Likelihood Model

## Introduction

Employee recruitment is one of the important mechanisms to provide valuable human resources for the organization. The selection results in the recruitment process will be useful if candidates who have high quality are in the system (Cable & Turban, 2001; Ryan & Delany, 2010). However, in making decisions, applicants often experience a lack of relevant information regarding work and organizational attributes. Therefore, recruitment materials such as job advertisements (Gregory, Meade & Thompson, 2013; Gatewood, Gowan & Lautenschlager, 1993) and recruiter's behavior (Chapman, Uggerslev, Carroll, Piasentin & Jones, 2005; Larsen & Phillips, 2002) will be the main source of information about a job.

Some studies show applicants use information obtained during the recruitment process as an indicator of previously unknown attributes (Breugh, 2013). The first process, applicants perceive the image of the company begins since the job offer information is published specifically through the company's website (Breugh, 2013; Allen, David, Mahto, Raj & Otondo, 1992; Turban & Cable, 2003; Gatewood et al., 1993). The perspective of signaling theory (Spence, 1973) states when individuals have incomplete or uncertain data on important positions that must be decided, then decisions will be made based on available signals.

The second factor in giving an impression to applicants is the role of recruiters, as representation of the relationship between applicants and the organization (Huffcutt, Van Iddekinge, & Ronge, 2011; Larsen & Phillips, 2002). The effects of recruiters can be explained by using Elaboration Likelihood Model / ELM (Petty & Cacioppo, 1986) as one theory that can explain how an impression on an organization can be shaped by individuals. Carless and Wintle (2007) state that the important role of recruiters is in communicating information about the organization and job position, especially those carried out during the interview process. Various research shows that the right interview design can identify high-quality applicants (McDaniel, Whetzel, Schmidt, & Maurer, 1994; Hausknecht, Day, & Thomas, 2004; Huffcutt et al., 2011).

This article aims to propose a number of propositions regarding applicants' perceptions of information sources in the recruitment process (website and interaction with interviewers). Articles are presented in four parts: (1) recruitment process; (2) the recruitment process through the company's website; (3) recruiter's behavior; (3) conclusions and limitations.

## **Literature Review**

### **I. Recruitment Process**

The recruitment process involves various stages (Turban et al., 1995) which aims to obtain qualified applicants and increase applicants' interest in job offers (Saks & Uggerslev, 2010). The first stage builds the company's image through the website, and the second stage comes from the interaction between recruiters and applicants. Both stages will have an impact on the decision of applicants that can build accumulation of perceptions of the organization (Saks & Uggerslev, 2010; Collins & Stevens, 2002). Organizations that are able to attract highly qualified applicants will obtain high utility from the selection system (Highhouse, Zickar, Thorsteinson, Stierwalk, & Slaughter, 1999). The decision of job seekers to obtain employment is based on the perceived image and reputation of the company (Highhouse et al., 1999). Based on literature review, research in the topic of recruitment processes is still limited to investigation (Breugh, 2013; Turban & Cable, 2003).

Collins and Stevens (2002) investigated four initial recruitment activities (publicity, sponsorship, word of mouth, and advertising) and found their effects directly on corporate image. These results are relevant to Taylor and Bergmann (1987) that the recruitment process has the potential to have a long-term impact on applicants. However, studies that focus on the interview process are still limited (Breugh, 2013). Based on a practical perspective, Saks and Uggerslev (2010) state that it is important for organizations to formulate an appropriate recruitment process.

Empirical measurement of the recruitment process requires a longitudinal study design. Saks and Uggerslev (2010) found that information about recruitment received at an early stage, had a longer effect on subsequent applicant reactions, so it was estimated that recruitment was a sequential, multi-stage process. This article assumes that the effect of information obtained at each stage of the recruitment process must be considered its effect on the reaction of the applicants as illustrated in Figure 1. The organization needs to design a recruitment program that involves a series of stages with a consistent and clear message about the organization and work offered.

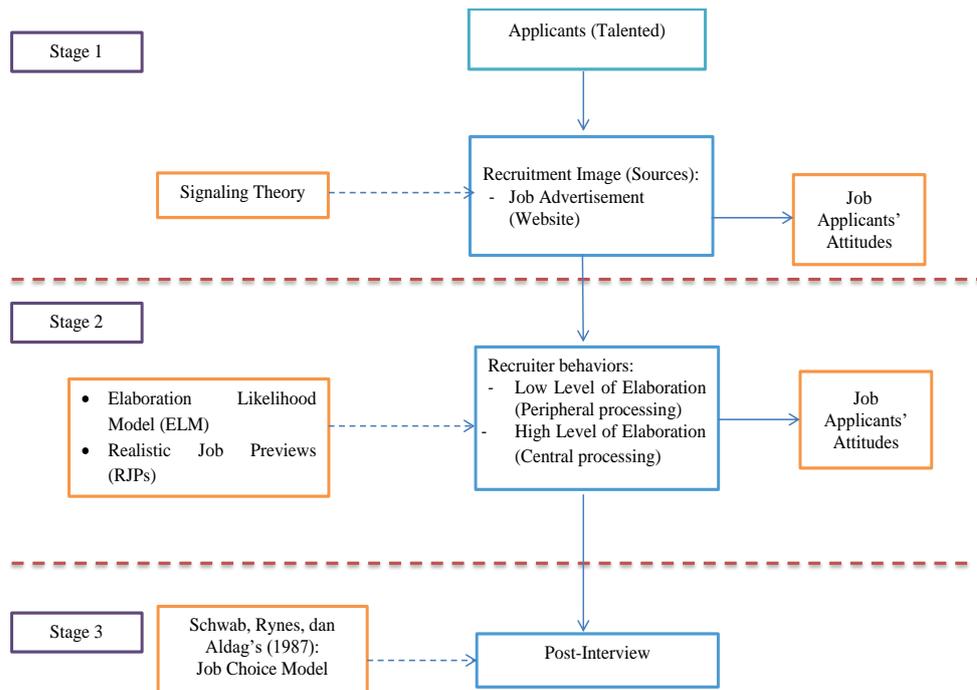


Figure 1: Recruitment Process

## Propositions

### The Recruitment Process through The Company's Website

The characteristics of the website have an influence on the decision of the applicant (Breugh, 2013). Several studies on the topic of recruitment examine the relationship between website aesthetics and their use (Gregory et al., 2013; Walker, Field, Giles, Bernerth, & Short 2011). Cable and Yu (2006) show that corporate websites sometimes cannot provide useful and credible information, but on the other hand their utilization has increased. Sylva and Mol (2009) found the ease of finding information on a website has a major role in the perception of applicant satisfaction.

*Proposition 1: The use of a website that is easy to use will have an impact on the positive attitude of job seekers.*

Website devices that have attractive aesthetic features will invite individuals to carry out in-depth exploration of jobs and organizations (Coyle and Thorson, 2001). Aesthetic characteristics include the use of attractive colors, font settings, visualization including multimedia presentations (Cober, Brown, Keeping, & Levy 2004). Gregory et al. (2013) stated how the company positioned its image can be seen from the physical appearance of the website. Website display can give applicants pride to decide to follow the recruitment process. Cober et al. (2004) provide empirical evidence that aesthetics are an important determinant of the initial reaction of applicants, not only limited to the website but also the organization.

*Proposition 2: Website aesthetics will positively influence the attitudes of job seekers.*

In addition to the aesthetic aspects, the contents of the website are expected to provide adequate knowledge regarding the recruitment process. Information regarding the substance of the organization and work (training, compensation, previous applicant's testimonies) can have an impact on the level of work or organizational attractiveness for applicants.

*Proposition 3: Applicants who are experienced in applying for a job or at work, will have a positive perception of the job position when the website provides relevant information*

**Signaling Theory**

Signaling theory is developed from economic research on the role of information that exists between buyers and sellers (Spence, 1973). This perspective has been adopted to explain the interaction between potential applicants and the recruitment process (Gregory et al., 2013; Braddy, Meade, & Kroustalis, 2006; Turban & Cable, 2003; Rynes, Bretz, & Gerhart, 1991). The assumptions used are when the individual has incomplete data, or has uncertainty about the position taken, then the applicant will describe the information based on any available signals (Breugh, 2008). Previous research shows that applicants' perceptions of recruiters will lead to impressions of the organization (Turban, 2001; Goltz & Giannantonio, 1995; Rynes et al., 1991).

Signaling theory can be expanded on a website to explain how potential applicants can form perceptions after seeing the company's website. Job seekers often have limited knowledge about organization and work, so recruitment material on the website can be the main source of information. Turban (2001) and Rynes et al. (1991) state that variables that may not have a direct relationship with work or organization can be a signal for applicants. Websites can give applicants a first impression in the first stage of recruitment by providing information about the work offered and the value of organizational culture (Braddy et al., 2006). Perceptions in organizational culture directly affect perceptions of person-organization (PO) fit, which affects potential applicants to do job selection individually. When information about jobs and organizations is limited, the ease of access and aesthetic appearance of a website can have an effect when applicants will make decisions.

*Proposition 4: The ease of using and the aesthetics of a website will have a role in predicting the applicant's positive attitude when there is little information about the job; and vice versa.*

**Recruiter's Behavior**

When many researchers agree with the importance of the characteristics of work and organization, there is controversy about the effects of interviewer behavior on applicants' interest in the organization. Some studies have doubts about the interviewer's effect on applicant interest compared to the influence of job and organizational characteristics (Rynes & Barber, 1990; Powell, 1984). While the results of other empirical studies show that recruitment behavior directly gives persuasion to candidates (Powell, 1991; Rynes et al. 1991).

The study presented emphasizes sequential effects that the perceptions of applicants have been built from the previous knowledge they obtained from the initial stage through the recruitment website. Applicants will verify to strengthen their perception of the organization and work. For example, if organizational recruiters are perceived as having competence and are friendly, applicants will assume this as a reflection of the organization as a whole. Limitations in the research of recruitment effects are the lack of theories that can explain the phenomenon (Breugh, 2013; Rynes et al., 1991). One theory that is considered to provide justification is the elaboration likelihood model (ELM). Petty and Cacioppo (1986) developed the model to explain how the communication process between recruiters and recruits can occur and will affect the choice of behavior that will be decided by the applicant.

Recruitment involvement starts from the preparation of advertisements for job vacancies, technical preparations, reviewing applications, conducting interviews and drafting acceptance recommendations. In the mechanism described, the recruitment role is focused on the interaction that occurs in the second stage (interview). Recruitment behavior that affects the behavior of applicants is divided into two categories (Larsen & Phillips, 2002): (a) behavior that provides relevant information (related to actual information from work and organizational attributes) and (b) peripheral signals (such as demographics functional areas and hospitality) including non-verbal behavior (Liden, Martin, & Parsons, 1993).

Thomas and Wise (1999) state that the demographic characteristics of recruiters provide information signals for job applicants regarding organizational practices to accept individuals with the same gender or the same race. Turban and Dougherty (1992) found that male applicants interviewed by male recruiters had a higher interest in the company than when male applicants were interviewed by women. In general the rationalization for the effects of demographics is that people prefer those who have similarities compared to differences. Applicants appear to be more positive about the organization when they perceive recruiters as being the same as themselves, perhaps because they want to work with others who are similar (Rynes & Barber, 1990).

*Proposition 5: The interest of job applicants in organizations will be higher influenced by the demographic characteristics of recruiters for job applicants who use elaboration at a low level than those who use high levels.*

Hospitality from recruiters is a peripheral signal that positively influences the perception of the company (Rynes et al., 1991). Friendly behavior can be interpreted by job applicants as a signal about work conditions in an organization such as warmth and a friendly work environment. Warmth and interpersonal skills are associated with a positive response to the recruitment process, high applicant interest, and higher likelihood of job acceptance (Turban & Dougherty, 1992). Warmth is found to be another personal characteristic of some applicants' attitudes.

*Proposition 6: The interest of job applicants in an organization will be higher influenced by the recruitment friendliness for job applicants who use elaboration at a low level compared to high-level applicants.*

Dyadic social interaction states that individuals often give a reply to other individual behavior during interaction. Other nonverbal behaviors expressed by Liden et al. (1993) include eye contact and smile versus or vice versa. Applicants are predicted to respond to recruitment behavior that is perceived to be more positive.

*Proposition 7: The behavior of friendly applicants and maintaining eye contact will be judged to be more positive by recruiters who have the same behavior than the opposite.*

## **Discussion and Conclusion**

This article provides a selective review of the applicant's attitude formation process for each stage through the recruitment process: (a) images and impressions obtained through the website and (b) recruitment behavior. Previous studies have shown various inconclusive results, a lack of supporting theories and various partial studies. This study proposes seven propositions that can be direction if empirical testing will be conducted. Empirical studies will have challenges because they require longitudinal designs and involve applicants and recruiters as respondents.

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# The Effectiveness of Act Number 19 Year 2002 Jo. Act Number 28 Year 2014 Concerning with Copyright as a Protection of Craft Creative Industry to Increase The Acceleration of Creative Economic Growth of Indonesia

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## Abstract

**Purpose:** The purpose of this paper is to study examined the Copyright Act No. 19 Year 2002 jo. Copyright Act No.28 Year 2014 as a creative craft industry protection and the effectiveness of the Copyright Act No. 19 Year 2002 jo. Copyright Act No.28 Year 2014 as a protection for the creative craft industry in an effort to enhance the economic growth of Indonesian creative.

**Design methodology approach:** This study applied empirical normative juridical approach. Yuridic refers to the principles, the norms of national and international laws, international conventions by reviewing literature data or secondary data, the results of research and other literature. Empiric refers to the effectiveness of legislation by reviewing "legal and non- legal" factors using descriptive-analysis research specifications.

**Findings:** The results showed that copyright Act No. 19 Year 2002 jo. Copyright Act No.28 Year 2014 has not given assurance of protection for the creative industries in addition to not effectively been implemented.

**Research limitation implication:** This is an obstacle to economic growth of Indonesia's creative.

**Practical implication:** it is urgently needed to renew the Copyright Act and to socialize the rules.

**Originality/value:** There is a substantial constraint in the form of copyright rules which are not comprehensive, "Automatic Protection" system and dysfunctional institutional aspects in addition to the communal cultural aspects of society.

**Keywords:** Act No. 19 Year of 2002, Act No. 28 Year of 2014 on Copyright, Creative Industries, Craft, Economic Growth of Indonesia's Creative

## Introduction

Creative industry in Indonesia give significant contribution in relation to PDB contribution (Desy Setyowati dan Metta Dharmasaputra, 2018). In 2018, it is targeted to achieve IRD 1,941 trillion, which is hoped to absorb 18,2 % workers, and gives U\$\$ 23,7 milliards for national export . In 2019 the contribution is targeted to achieve Rp.1.123 trillions toward PDB\, and will give export as much as U\$\$ 25,1 milliard.(Desy Setyowati and Metta Dharmasaputra, 2018).

The creative industry experienced the 8,7 % growth in 2015 ( Statistic Data and Creative Economic Result, 2017 That achievement was over the average of national economic growth

which achieved 5,07 % ((BPS, 2018) In 2017, The growth of creative economic was 4,95 %. This number of growth increased if being compared to the year 2016 which was only 4.41% (republika.co.id, 2018).

Creative industry which has 14 subsectors has given its contribution significantly. Its contribution to national PDV in 2015 was as much as 852 trillion (7,38%), in 2016 achieved 922,6 trillion (7,44%) (increased to 0,05%). The worker abortion in 2015 was as much as 13,9%, export contribution value was US\$ 19,44. (Desy Setyowati and Metta Dharmasaputra, 2018). In 2017 the Creative Economic had its growth to 4,95 %. That number increased if being compared in 2016 which was only 4,41 %, in 2015 it was as much as 852 trillion (republika, co.id, 2018).

Among the 14 sub-sectors of creative industries, handicrafts sub-sector has the third largest value of GDP contribution period in 2015, contribution value of 15,7% after Culinaer value of 41, 69 %, and fashion value of 18,5 % (Statistic Data and The Result of Creative Economic, 2017).

The craft market still has very big potential although the world craft market still has 12 % negative growth in 2015. Indonesian craft export developed to 1,35 % of world market which is in USD 46.8 milliard (Baby Jurmawati Djuri, 2017. Now, market share just value 1,41% (Engartiasto, 2017). At this moment the market has only achieved 1,41% (Engartiasto, 2017). Inacraft has its target to develop retail business to 10%, IDR 142 milliard and commercial contract up to USD 12 million. It is targeted to acquire 200 thousand buyers from many countries such as Egypt, Japan, Singapore, Brazil, and Brunei Darussalam. The leading products except Batik which will be shown among others are: fahion, accessories, jewelries and other craft products Indonesian Export Craft, (Engartiasto, 2017). Thus the craft subsectors have their potential to be developed as export commodities to make the vision to develop the craft products which have strength in global competition which has contribution to support the prosperity for all people extensively (Dionisius Ardiyanto Narjoko, et al, 2015,p 67).

The development of creative Indonesian economic in 2015-2019 period was led to develop the creative economic competition intensively in national and global level by making use creative industry as additional value creation and the development of 15 creative industry groups as the focus of development. (Mary Pangestu, p.179, 2008).

Craft sub-sector has a potential to be developed as an export commodity, to make real the vision in developing the craft that has global competitiveness and gives contribution for people's prosperity intensively ( Dionisius Ardiyanto Narjoko, et al, 2015 p 67). The Indonesian craft product is highly demanded by overseas markets. However, the value of Indonesia's handicraft exports tends to decrease as Thailand and China began aggressively developing the craft industry which is also highly demanded by overseas markets (Iwan Kurniawan, 2010). Although the Chinese crafts are good and inexpensive because they are mass produced yet Indonesian crafts have another advantage. Indonesian crafts are more innovative and original so as to have a superior competitiveness (Iwan Kurniawan, 2010), potentially increasing the acceleration of economic growth in Indonesia.

In 2009 Indonesia exported handicraft products include handicrafts such as antique lamps, accessories, weaving or plaiting work products and wickers, households, and garments with the value of export to Europe up to 17 %, Japan 17 % , United States 16.5 %, and the remaining 50.5 % to a number of other countries including all member countries of CAFTA (Iwan Kurniawan , 2010).

Until 2014 Indonesia has become number 12 country which exported world craft in ASEAN level, while China still dominated with its 50, 77% export of the world craft export. In Inacraft 2016 the Minister of Trade presented the leading craft products. It is targeted to 200.000 local visitors and 1000 foreigner buyers in Inacraft award in Jakarta, handicraft is one of the Indonesian Economic Strength (Having Global Competitive Strength Kriya Product, 2018). Creative crafts produce creative and unique products, a strength of craft products, but

vulnerable to plagiarism and imitation products given the easy manufacture. Now the threat to the potential of the creative industries in Indonesia as an effort to accelerate the growth of the creative economic is the sustainability of traditional knowledge-based craft industries among others are mats, bags or other craft products made of *pandanus* and *eichornia crassipes* raw material (Resti Anatasia Resti Muliani, 2007). The industry is threatened by similar products produced by China and Vietnam (Resti Anatasia Resti Muliani, 2007). Those countries succeeded in creating synthetic handicraft products, which have similarities with the design and shape of those of Indonesia, but the selling price is much cheaper than those produced in Indonesia (Resti Anatasia Resti Muliani, 2007).

Other works of creative industries of Indonesia which are traditional knowledge – based, communal and traditional cultural expressions such as batik, songket, traditional jewellery motifs, and traditional arts (Wisnu Aji Dewabrata, 2008) are also vulnerable to have imitation and plagiarism from other countries for economic interests of those countries (Wisnu Aji Dewabrata, 2008). For example, the “Parang Barong” motif of Indonesia was claimed and modified by Malaysia. Such actions harm the Indonesian people in general and people of Yogyakarta and Solo in particular as the motif was originally created by the people of Yogyakarta and Solo (Rindia Fanny Kusumaningtyas , 2009). Another case is the copyright ‘theft’ or exploitation of Jepara carving by a foreigner, Christopher, in 2005 causing the detriment of small craftsmen in Jepara (Didier Endro S, 2010) in maintaining and preserving the cultural characteristics of their creative work. Considering the conditions mentioned above, the needs for protection of ideas, creativities, innovations through intellectual property rights given the crafts as a creative industry sector with a strong copyright (Didier Endro S, 2010) contain ideas that can be exploited, susceptible to imitation.

Therefore imitation and plagiarism of a copyright is a central issue in the creative industries (Didit Endro S, 2010) which is uneasy to resolve. The weakness in applying the IPR rules is problem for development handycraft subsector (Dionisius Ardiyanto Narjoko, 2015 p 62), although the idea to register the copyrighted works is always discussed. The fact that the artisans are faced rapid development of craft designs that are not able to be emulated with the process of obtaining a copyright registration. The copyright application takes a long time and needs a high cost (Unan Pribadi, 2012). Moreover, if the design is not only made by the unit of production, but also by the diversity of the additional elements in a product, they will have many craft designs to be registered for copyrights (Moch. Iqbal Cahyadi, 2008). It will be burdensome for craftsmen.

The reluctance of employers to register their crafts creates uncertainty for the protection of their works (Moch. Iqbal Cahyadi, 2008). Consequently there is no other option for them to be faced with the problem of imitation, although the crafts requiring creativity must be original. It is therefore the necessity for copyrights is a must for any creativity work through copyright registration.

The importance of copyright for creative art works and entrepreneurs is already regulated in Law Number 19 Year 2002 on Copyright. The law serves as an effort to establish a national legal system in addition to realizing the government's commitment to the WTO-TRIPS and the Berne Convention which was ratified by Presidential Decree Number 18 Year 1997 and the WIPO Copyrights Treaty ratified by Presidential Decree Number 19 Year 1997 dan telah dilakukan perubahan melalui UU No.28 Tahun 2014. Yet the law does not effectively protect copyrighted works (Yuliati, 2006) including the work of traditional cultural expressions.

Thus, regulation of intellectual property rights set forth in the Copyright Act in international scope as TRIP's-implementation of WTO is still weak, In accordance to Regulation Number. 28 Year 2014 that discusses about Copyright as the new Regulation which hasn't been renewed which considers that registration is a *conditio sine qua non*. This happens when the people of the world are moving towards a trend back to nature characterized by the growing awareness

of the traditional culture as part of the intellectual property and cultural heritage that is worthy of respect and must be maintained, especially in developing countries (Rindia Fanny Kusumaningtyas, 2009). Especially for Indonesian country which is rich with its original/traditional traditional knowledge properties, it is the strategic potential to increase economy creative growth (Purwandoko Hadi Prasetyo, 2006).

The tendency of the people of the world leads to increasing exploration and exploitation to the property of the indigenous/traditional community as the indigenous/traditional people is always known to have its own local wisdom so that it has a number of intellectual properties which are very 'friendly' with nature. However, because of inadequate legal protection, the craft work copyright ownership of the intellectual property of the indigenous/traditional people poses an obstacle for economy creativity growth of Indonesia. Based on the background of the problem the writer is interested in reviewing "The Effectiveness Of Act No. 19 Year 2002 Concerning With Copyright As A Protection Of Craft Creative Industry To Increase The Acceleration Of Creative Economic Growth Of Indonesia", with reviewing how Act Number 19 Year 2002 jo. UU Number 28 Year 2014 on Copyright as protection for Intellectual Property Right (IPR) of craft creative industry? And how effectiveness of Act Number 19 Year 2002 jo. UU Number 28 Year 2014 on Copyright as protection for craft creative industry in efforts to increase creative economic growth of Indonesia?.

### **Literature Review and Theoretical Framework**

This study analyzed "the law in the books", a normative aspect in the form of the law regulation of rights, "the law in action", empirical aspect, that is the factors influencing the effectiveness of copyright law (Seidman, 2012) applying the Grand Theory, that is the critic of Dwi Putro against the flow of positivism law which states that not only is the law not normative (sollen) but also non-empirical (sein) but wholly interconnected concerning the law (Widodo Dwi Putro, 2011). Middle Theory used is "The Theory of Legislation Designing for Democratic Transformation presented by Seidman Seidman Abeysekere, dengan memperhatikan teori "Stufenbau" Hans Kelsen yaitu "berlakunya hukum jika sesuai dengan kaedah yang lebih tinggi." (Mariana Molnar Gabor, 2012).

The method of problem solving using ROCCIPI (Widodo Dwi Putro, 2011) by considering the seven categories as efforts to resolve the problem of subjective and objective factor constraints including: rule, process, capacity, ideology, communication opportunity, and interest, as well as Friedman concerning with the proper functioning of the legal that can be identified from the three essential elements which are legal substances, institutional structure and legal culture (Widodo Dwi Putro, 2011) as the driver for the legal system effectiveness. To observe the effectiveness of copyright law in order to protect the creators of craft creative industries which is faced with the acceleration of the creative economy, we need to reform the Copyright Act by paying attention to "legal policy" (Seidman, 2012) to examine the "juridical normative", "philosophical, sociological, and international factors" (Nina Conscience, 2014), as well as positive law and customary law in accordance with the theory of Seidman, Seidman, and Abeysekere (Seidman, 2012), namely the need for cultural value preservation, customary law and local wisdom revitalization that has a strategic potential in enhancing the creative economic growth.

Renewal of the copyright law refers to the concept of R development, Pound theory of "law is a tool a social engineering" according to Mochtar Kusumaatmadja "Law Construction Theory", that the role of law in development is to ensure that society changes occur with regular way (Mochtar Kusumaatmadja, 1976). Laws serve as a regulator or means of development. Sunaryati Hartono states that the meaning of law development include: (Sunaryati Hartono, 1991) (a) to complete; (b) to change for the better and modern (c) to develop ones that had not previously existed, and (d) to eliminate ones contained in the old system in order to develop

adequate legal tools (Ranti Fauza Mayana, 2002) as an effort to accelerate the creative economic growth in accordance to the concept of "modern welfare state" as *Applied Theory of Marbun*. The concept said that, in the "welfare state", the government should actively keep the society prosperous (Marbun and Mahfud, 2006). According to Jeremy Bentham in the utilitarianism ideology, it is "the greatest happiness for the greatest number of people" (Mariana Molnar Gabor, 2012).

### **Research Method**

Normative juridical and empirical sociological refer to legal norms contained in national and international legislation, as well as international conventions among others are laws of Brands, number 15 year 2001 dan telah dilakukan perubahan melalui UU No.28 Tahun 2014, the WTO - TRIPS Agreement, *Bern Convention* and *Copyright Convention* by searching, researching, and examining the object based on the literature data or secondary data, the results of research and other literatures. Empirical factor is the effectiveness of the implementation of legislation provisions which effectively achieves its goals by paying attention to the "law" and "non- legal" factors (Mariana Molnar Gabor, 2012). The research specifications use descriptive analysis, provide a description of the facts with an accurate analysis concerning the legislation in force associated with legal theories and its implementation practices associated with the implementation of the protection of copyright for the craft work as a creative industry as an effort to accelerate the economy growth.

The research stage was through library research and data announcement used document study. Analysis of the data was by using the data and conclusions were drawn from the research findings. Both legal materials of primary and secondary data were analyzed by qualitative method to find out the principles and information.

### **Findings**

The registration is done, it will be better and more profitable, as with copyright registration, the creator will have formal evidence perceived as a copyright if not proven otherwise (Kompasiana.com, 2018). According to Holmes, registration is not a necessity because without going through a registration process a copyright has been available, recognized, and protected, but the desire to register a creation by a reason of the requirement to establish the copyright if there is a lawsuit over copyright infringement, as well as the requirement to obtain redress. Letter of Copyright registration establishes the initial evidence for the creator of the copyright. Registration is required for the transfer of ownership and to provide notice to third parties of the existence of the transition of interest. When associated with the level of copyright infringement in Indonesia which is quite high, the aspect of copyright registration should be done by the creator in order to facilitate the proof in the case when there is a conflict of laws related to his/her creations (Unan Pribadi, 2012).

### **Discussion**

#### ***1). Act Number 19 Year 2002 Jo. Act Number 28 Year 2014 on Copyright as Protection for Intellectual Property Right (IPR) of Craft Creative Industry***

Act No. 19 year 2002 Jo. Act No. 28 Year 2014 on Copyright is the implementation of the WTO-TRIPs in the national law system of Indonesia. It is a consequence that the Indonesian government ratified the WTO agreements, so that Indonesia should also ratify the Berne Convention which is a convention to be ratified by the member states of the WTO. The Presidential Decree No. 18/1997 on the ratification of the Berne Convention on 7 May 1997 has been the foundation for the Indonesian Government to adjust copyright law in accordance with standards established by the Berne Convention (Yuliati, 2006). For the implementation of it, it is contained in Article 40 Act No. 28 Year 2014 of the Copy Right Act regulating that the

creation protected is a creation in the fields of science, art and literature, among others, in all forms of art such as painting, drawing, sculpture, calligraphy, collage, applied arts and batik art (Act No. 28 Year 2014 on Copyright). Thus craft is a kind of creative activity related to the creation, production and distribution of products produced by artisans which include handicraft items made of precious stones, natural or artificial fibers, leather, rattan, bamboo, wood, metals (gold, silver, copper, bronze, iron), glass, porcelain, fabric, marble, clay, and limestone.

Handicraft products are generally only produced in relatively small quantities, not mass production (Ministry of Trade, 2008), a creation that needs to be protected both within the country and abroad. This is in accordance with the principle of "National Treatment" (Qurrotu Aini, 2008) in the Berne Convention. Such arrangements can provide the foundation for effective protection, preventing plagiarism, or imitation of copyright, to ensure legal certainty that the exclusive rights granted to the laws of justice are entitled.

In the Berne Convention, the exclusive right is called *droit moral*, the right of a creator to claim that he/she is the creator of a work and the author's right to object to any action that is intended to alter, reduce or add to the authenticity of his/her creation (any mutilation or deformation or other modification or other derogatory action) causing doubt on the creator's or author's honor or reputations (Romi Jened, 2006).

Moral rights given to a creator has a position parallel to the economic rights. Protection of the exclusive rights granted to copyright of real works should also contain elements of authenticity (original) set forth in Article 31 paragraph (1) Act Number 28 Year 2014 on Copyright stating, unless proven otherwise, those who are considered as the Creators are people who are:

- a. be included in creation
- b. declared as the creator of a work.
- c. named in the creation or announced as the creator of a work.
- d. registered in the General Register of Works at the Directorate General.

Miller and Davis expressed Copyright provision is based on the criteria of authenticity or purity or originality (Ida Bagus Wiyasa Son, 2001). The creation comes from the creator, not the result of plagiarism or imitation<sup>43</sup> (Yuliati, 2006). Copyright protection is given to a personal who meets the requirement of authenticity (originality), based on the ability of his/her idea, imagination, creativity, and in typical form (fiction).

In addition to the authenticity of the work, according to the principle "Automatic Protection" as the implementation of the WTO - TRIPS set out in Article 1 paragraph 1 Jo. Article 64 paragraph 2 of the Copyright Act Number 28 Year 2014, that legal protection of copyrighted works can be obtained by the creators automatically, i.e. without going through the registration process in advance (Copyright Act Number 28 Year 2014), manifested in the form of real work . The creation is to make public to/*openbaarmaken*. The copyright of a creation that is not announced is on the creator.

The automatic protection is also in Article 64 paragraph (2) Copyright Act Number 28 Year 2014, which determined that the registration of a work does not constitute an obligation. Copyright registration is not absolute. The Berne Convention set out in article 5 (2) states that "the Creator will enjoy the same protection as obtained in their own country in other countries that are members of the Berne Convention" (Kompasiana.com, 2018). According to Sudargo Gautama, a creator of copyrighted works is given protection by ignoring whether there is protection provided by the State of origin or not (Qurrotu Aini, 2008).

## ***2). Effectiveness of Copyright Law as Protection for Craft Creative Industry in Efforts to Increase Creative Economic growth of Indonesia***

Craft is a part of applied art and it is the meeting point of art and design which has its sources from traditional heritage or contemporary idea which create art piece, and decorative or income

product as its final product. (Dionisius Ardiyanto Narjoko, et al, national Craft Development Plan 2015-2019, page 67, 2015). In Indonesia, both traditional and modern craft have been modified into modern style in many cities such as Surakarta, Pekalongan, Cirebon, Bali, Yogyakarta, Madura dan Malang. It needs the creation which is done by the crafters in order to create a piece which has *craft based on industries* as its base (Holmes, 2009). This is a region lead product, in 2015 the craft has it export market for each province as follows: for East Java 49 %, West Java 18 %, Jakarta and Central java 11 %, Banten 5 %, Jogjakarta 1 %, 0,77 % and four other provinces (OPUS –BEKRAF OUTLOOK 2017, p 44 ). The era of Creative Economy must be the main supporter for Indonesian Economic, has very strong relationship with copyright.

Indonesian craft, both traditional and modern, for example silver and carving, batik with its classic designs has been modified with modern trends in various cities such as Surakarta, Pekalongan, Cirebon, Bali and Yogyakarta. It requires creation of craftsmen as craft based on industries. This is one of local excellence highly related to copyright protection as it is rich of creativity and innovation known as intellectual property. Therefore, before exploited it needs to get legal protection in the form of copyright protection as it is listed as one of the fields of IPR, and plays an important role in creative economy growth now being a driving force for creative economic growth acceleration (Purwandoko Hadi Prasetyo, 2006) in accordance with the *Economic Growth Stimulus Theory* (Ranti Fauza Mayana, 2004).

Copyright protection effectiveness as the implementation of TRIPS-WTO has not been optimal yet. There is a gap between *the law in action* and *law in the books* (Seidman, 2012). Despite the recent copyright law Act No. 19/2002 jo. law Act No. 28/2014. the regulation of copyright in the legal system of intellectual property right in Indonesia has not been able to provide effective protection for copyrighted works, especially works of handicraft industry. It can be seen that the 80 % of 15,9 million actors of creative economic, haven't had their right for copyright/haven't registered yet ( republica, CO, ID, 2018 ), 93,31% haven't had HKI/haben't registered, and the actors of subsector who have their right for copyright is 6,69 % (OPUS – BEKRAF OUTLOOK 2017 p44).

In line with Friedman's opinion that a law is effective when it can solve "social problems" (Seidman, 2012), which means it solves the problem of order, justice and legal certainty for the craft creators of creative craft industries through copyright registration.

This time the most crucial and fundamental problem to creative industry artisan community is the reluctance of creators to register their works although copyright law is "*fiktie*" in the sense of people considered to understand the law (Wisnu Aji Dewabrata, 2008). The constraint, if it is associated with the opinion of Friedman, can be identified based on the functioning of three essential elements, namely, the first is the substance of the law, that is the law of life in society; the second is the institutional structure of the legal system, and the third is legal culture as a driver of the effectiveness of the legal system (Mariana Molnar Gabor, 2012).

The first, "legal substance" in question is the arrangement set forth in Act No. 19 Year 2002 Jo. No. 28 year 2014 on Copyright as the implementation of the WTO-TRIPS and the Berne Convention is still not clear, so it is not the comprehensive firmly protect copyrighted works of creative craft industry. According to Seidman Seidman and Abeysekere it is needed to look at objective factors such as "rule", that is a rule that causes the rule is not implemented effectively (Seidman, 2012). It can be assessed as follows:

- (1). Espoused *stelsel* "Negative Declarative" ("automatic system") in Article 2 of the copyright law No. 19 Year 2002 Jo. Article 1 of the copyright law No. 28 Year 2014 that registration is not an absolute requirement for obtaining copyright. Copyright arises automatically, does not have to be registered, so that not all copyrighted works have a copyright certificate. This has led to different interpretations of the law for lawmen on the proof for copyright ownership leading to a number of cases that can not be resolved

clearly (Yuliati, 2006). Whereas registration is a requirement to determine a right in case of a lawsuit for copyright infringement as a basis for prosecution of redress, to establish formal proof and evidence of the transfer of ownership interests in terms of the interest transition (Yuliati, 2006).

- (3). The setting of copyrighted works related to folklore/traditional knowledge such as *batik*, *songket*, jewelry motifs, and traditional art (Wisnu Aji Dewabrata, 2008) which are communal and traditional cultural expressions governed by Article 10 of the Copyright Act No. 19 Year 2002 Jo. Article 38 until 39 of the Copyright Act No. 28 Year 2014 does not explain about the "craft criteria" ( Copyright Act No. 28 Year 2014) and "authenticity criteria" as a condition of copyright protection. This creates difficulties in proof search.
- (4). The Government in some regions generally has not issued Regional Regulations governing the protection of intellectual property rights, in particular the copyright of folklore/traditional knowledge, as has been done by the Regional Government of Papua (Yuliati, 2006). It is very crucial considering each region has its own characteristics to protect copyrighted works of the craftsmen.

The second, the "institutional structure", according to Seidman Seidman and Abeysekere, needs to look at objective factors such as "process" which are the background of the community's decision to comply of the Copyright Act and the capacity (Seidman, 2012). The ability of the lawmen can be assessed as follows (Yuliati, 2006):

- (1). The criminal sanctions implementation under Article 72 of the Copyright Act No. 19 Year 2002 jo. Article 112 of the Copyright Act 28 Year 2014 which is supposed to give the effect of "deterrent" for offenders, in fact it has no impact whatsoever. This is due to the lack of accountability and credibility of the legal institutions and the lack of commitment of the implementers of law enforcement. Not maximal completion of the crime of copyright is evidence of the lack of seriousness of the entire institution authorized.
- (2) Levels of knowledge and understanding of the judges ( example case of Surabaya ) Commercial Court on the field of intellectual property rights is still minimal.

The third, "legal culture", as a driver of the effectiveness of the legal system in an effort to prevent and to address the problem of piracy, imitation, and plagiarism, according to Seidman, is categorized "subjective" factor of "ideology", that are values and attitudes (Seidman, 2012). The society and craftsmen can be assessed as follows:

- (1) The artisans do not have awareness to register their creation do not understand the legal consequences of registration in the form of moral rights that would have an impact on economic rights (Mochtarom, 2006). In Bali, artisans assume that imitating among artisans crafts is the pride and charity, doing goods for the welfare of others as required by Hindu religious teachings (I Ketut Wirawan, 2000). The creators of batik in the district Lasem Rembang have no fear of imitation, even if their work is imitated, it will be a pride for them, including imitated by foreigners (Kanti Rahayu, 2008). According to them it is a good promotion.
- (2) Cultural communities are less rewarding and recognizing the work of the creators. Although pirated and imitated goods are circulated, but if people do not buy them, the items can not survive (Tri Priyono, 2006).

Considering these problems, we face various global challenges, we need to reform the law by paying attention to "legal policy" (Seidman, 2012) which examines four perspectives: normative juridical, philosophical, sociological "and" International " (Nina Nurani, 2014) with

regard positive law and customary law in accordance with the theory of Seidman (Seidman, 2012) the need for the preservation of cultural values as well as the revitalization of indigenous and local wisdom that has a potential strategic in promoting national economic growth.

The first factor, "normative juridical", which are binding throughout the creator as follows:

- 1) It is necessary to consummate the Article 38 until Article 39 of Copyright Act 28 Year 2014 specifically to the work of folklore/traditional knowledge as the basis of evidence. It needs to be equipped with further explanation of the criteria of "originality" and the criteria of "crafts" (Romi Jened, 2006).
- 2) It is necessary to immediately issue Execution Regulation and the Local Regulation concerning the protection of intellectual property, especially copyright, with reference to the Copyright Act. This is consistent with the theory of "Stufenbau" of Hans Kelsen that is "a statute to be effective if it is in accordance with higher rule" (Mariana Molnar Gabor, 2012).

The second factor, "philosophical", is the enactment of copyright rules if it conforms to the ideals of the law contained in Pancasila values such as the value of the balance between the interests of creators with the interests of the public welfare so as to create a just democratic character to realize order (Nina Nurani, 2013) and the welfare of society at large, as efforts to accelerate the growth of the creative economy according to Marbun concept "modern welfare state" (Marbun and Mahfud, 2006) and according to utilitarianism flow of Jeremy Bentham "the greatest happiness for the greatest number of people (Jeremy Bentham, 1977).

The third factor, "sociological", is to examine the influence of the Copyright Law of the craftsmen community of creative industries that needs to be protected by legal guarantee when registered (Nina Nurani, 2013). Roscoe Pound with "Social Engineering Theory" and "Theory of Legal Culture" of Lawrence M. Friedman, the role of law as to change society (social engineering by law) (Kanti Rahayu, 2008) states that the law is not a static state but a process (Saiful Anam, 2013). Copyright law is formed both in the interpretation and application of social facts in the craftsmen community (Mariana Molnar Gabor, 2012) prioritizing how to apply these provisions by the craft creators of creative industries (law books in the law in action). Applicable law must conform to the patterns of craftsmen community behavior.

Law as a means to direct and foster a society where the law is not passive, but the law should be able to be used to change a situation and circumstances to the intended direction (Saiful Anam, 2013). Therefore, the Copyright Act needs to accommodate the values of ethnic or tribal artisans particularly the values of traditional knowledge work/local folklore which is a superior potency. The means direct and foster the creativity of artisans to encourage local craft industry as an effort to accelerate the growth of the creative economy.

The fourth factor, "International", is the Berne Convention contained on the WTO-TRIPs rules into Indonesian practice law (Ranti Fauza Mayana, 2002), through the ratification of the WTO-TRIPS and other international regulations that apply the principles of international law, among others: "Reciprocity Principle" that each state shall protect copyrighted works produced by other countries listed in the participant agreement, the principle of "automatic protection" is that copyright is a right naturally inherent to each individual, and the principle of "independent protection" is that legal protection is granted without a must to rely on the legal protection regulation of the country of origin of the creators (Kanti Rahayu, 2008) and the sanction of international law with the ultimate goal of creating justice and the rule of law that is universal based on a set of adequate copyright law.

Therefore, it is necessary to reform the law in the form of improvements to the Copyright Act (Mariana Molnar Gabor, 2012) so that arrangements can be implemented effectively (Mariana Molnar Gabor, 2012), "progressively", "uniformly", "universally" (Sajipto Rahardjo, 2010) to meet the characteristics of a modern legal system. It is needs institutional development and

optimization of professionalism. The ability to solve "social problems" of the craftsmen will have an impact on the realization of creative economic growth acceleration.

The Renewal of the law against such copyright laws needs to pay attention to the plurality of the prevailing legal order and the impact of globalization (Law of RI No.17, 2007). It must not only prioritize rules but also behavior ( Mariana Molnar Gabor , 2012 ) by directing the mindset of the creative craft industry creators, from the mind set of traditional communal society toward the mind set of modern democratic society to achieve accelerated growth of the creative economy. Therefore, in accordance with the "Law of Development Theory" by Mochtar Kusumaatmadja, the renewal of copyright law should be used as a means of community development. Sunaryati Hartono in "Theory Construction Law" states that legislation consummation is done by adding something that does not previously exist (Sunaryati Hartono, 1991). Similarly, the setting of the Copyright Act needs a consummation to the substance of the rules as described above , in order to be more adequate to protect copyrighted craft works with a certainty of right assurance.

It needs to consider the "objective" and "subjective" factors proposed by Seidman Seidman and Abeysekere, in the forms of the "legal" or "non-legal" factors (Mariana Molnar Gabor, 2012), which may affect the decision either for the creative craft industry, or for law enforcement agencies, as well as the general public to be able to comply with the provisions of the Copyright Law.

The next step, the Government including Local Government shall disseminate the provisions of the copyright. According to Seidman (Seidman, 2012), we need to pay attention to objective factors such as communication as an effort to increase understanding of a variety of information about the importance of registration, and registration fees as well as steps measures the amount of litigation and litigants filing fee if there is a violation. This, as an effort to revamp the legal culture, is a driver of the effectiveness of the legal system in an effort to prevent or crack down on any forms of copyright infringement that is done either by internal, regional and international levels that will harm economic growth and hampers national creative.

## **Conclusions and Recommendations**

### **Conclusion**

- a. To follow the registration system "Negative Declarative" in the Copyright Act 19 Year 2002 Jo. in the Copyright Act 28 Year 2014 as the implementation of WTO-TRIPs and the Berne Convention according to the principles "Automatic Protection" which does not require registration of copyright works, in addition to the term "original" which is not clearly standardized causes differences in interpretation for craftsmen and law enforcement officers. This has led to lack of legal certainty in terms of evidence of ownership and lack of enforcement of justice by law enforcement agencies to protect the work of creative industry craftsmen.
- b. Copyright law has not been effectively implemented by the craftsmen of the creative industries. This is an obstacle in promoting creative economic growth of Indonesia. The constraints concern with the legal system in the form of legal substance, institutional structure, and legal culture as a driver of the effectiveness of the Copyright Law and the people who have traditional communal culture.

### **Recommendations**

- a. The consummation is needed for Act Number 19 year 2002 on Copyright register related is *conditio sine qua non* as a means of legal development which is effective, progressive, predictable, uniform, and universal in order to become a modern law through cultural change of society from the traditional communal mindset towards

modern democracy based on justice and welfare. It is therefore necessary to restructure the function of law enforcement officers and optimize the copyright law socialization.

- b. It should be soon published a "Local Rule" on Copyright as an effort to increase the potential wealth of local creative crafts and to optimize local institution. This is a strategic potential in promoting accelerated growth of creative economy of Indonesia. In addition to the need of simplifying the bureaucracy of registration, the registration fee mitigation and litigation expenses in the Commercial Court, as an effort to improve community response to register and file a lawsuit or a case when there is a violation.

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# An Exploratory Study of Success Factors of the Leadership Succession in the Family-Owned Higher Education Institutions

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## Abstract

**Purpose:** This paper aims to identified several factors that possible to be the success factors of the leadership succession in the family-owned Higher Education Institutions (HEIs).

**Design/methodology/approach:** This paper adopted literature study to identified the success factors. The selected literatures studied in this paper are mainly taken from international journals and international conference proceedings.

**Findings:** Several factors propose as the success factors of the leadership succession in the family-owned HEIs are knowledge transfer, adaptability of the leader to the present situation, and the opportunity for the successor to express their vision.

**Research limitations/implications:** This paper only identified the possible success factors based on literatures study. Therefore, it is recommended for future research to develop a conceptual model of the critical success factors of the leadership succession in the HEIs that quantitatively valid by the hypotheses testing.

**Practical implications:** The proposed success factors identified in this paper can be used as a reference for the family-based HEIs in leadership succession.

**Originality/value:** This study explores the possible success factors of the leadership succession, especially in the family-owned HEIs, in academic perspective. This study is importance since the majority of the private HEIs in Asia are family owned.

**Keywords:** Family-owned business, Intergenerational, Leadership, Behavior

## Introduction

Studies show that family-owned organizations are playing important role in today's economy. In terms of profit organizations, it is estimated that 85% of the companies in the world and 65% of the GDP in Europe are accounted to the family-owned organizations (Klenke, 2018). However, there is a crucial concern in the continuity of these family-owned organizations. As firstly reported by Ward (1987) in Klenke (2018), the survival rate of this type of organization is relatively low. It is indicated that only 30% survive to the second generation, only 13% survive to the third generation, and only 3% survive beyond that. Despite that this statistic need to be updated with the current situations, it is evidenced that succession of leadership has become a major concern in in family-owned organizations (Seymour, 1993; Mussolino & Calabro, 2013). Succession in a family-owned organization is commonly intergenerational, in which the leader of the organization has to passed on the leadership role the next generation of

the family (Lefebvre & Lefebvre, 2015; Klenke, 2018). The challenges in this intergenerational succession process mainly are relationship condition between the successor and the past generation, the difference of knowledge between the successor, and the past generation the ability of the successor to deal with the current organization situation and business environment (Lefebvre & Lefebvre, 2015). In particular, this kind of challenges is also faced by private higher education institution (HEIs).

Globally, around 56% of HEIs is private. Specifically, nearly 60% of HEIs across Asia is private (ADB, 2012). These private HEIs plays important role in absorbing the enrolment demand for higher educations and producing skillful workforce required by the labor markets (ADB, 2012). Further, majority of the private HEIs in Asia are family owned (ADB, 2012). Family-owned HEIs can be defined as the universities that established either by a person or a family group, in which the family members are directly involved and has the main control in the administration, governance, and financial aspects of the institutions (Altbach, 2007). This kind of HEIs as has unique challenges compare to the public universities, especially in the intergenerational leadership successions, in which the common challenge of family-owned organizations (Seymour, 1993; Mussolino & Calabro, 2013). To assure the continuity of higher education in private HEIs, it is therefore crucial to ensure the continuity of the family-owned HEIs, in which strongly influenced by the success of their leadership succession. To positively contribute in ensuring the continuity of family-owned HEIs, this study proposed main research questions as the following:

*What are the possible success factors of leadership succession in the family-owned HEIs?*

### **Literature Review**

Leadership succession is one of the major concerns in the typical family business (Klenke, 2018). The situation is considered as a significant matter it requires a systemic analysis from different perspective of various stakeholders (Klenke, 2018). The leadership succession in family-owned organization is not only passing down the physical assets, but also intangible assets like the vision and the knowledge owned by the leader (Klenke, 2018). Particularly, family-owned organizations have a unique way in transferring the leadership role, in which they have preference to inherit their legacy to the candidate from their own family (Mussolino & Calabro, 2013). For example, as shown in Figure 1, Sharma (2004) propose characteristics of the leadership role in the family-owned organization.

The leadership succession in family-owned organization has generation involved in their family business, the family decision can be affected with the entrepreneur behavior the family members (Kellermanns, Eddleston, Barnett, & Pearson, 2008). The deference of generational also lead to differences of opinion for the succession of who will be the next CEO (Kellermanns, Eddleston, Barnett, & Pearson, 2008). Succesfull succession can be define with the quality of the family performance in the organization who can manage the subjective assessment in the family members (Mussolino & Calabro, 2013). Therefore, the effectiveness of succession to realize the positively improve the performance of the firm.

The following are the typical challenges in the leadership succession in family-owned organizations identified from previous research.

		FAMILY DIMENSION	
		Positive	Negative
BUSINESS DIMENSION	Positive	I <i>Warm Hearts</i> <i>Deep Pockets</i> High Emotional and Financial Capital	II <i>Pained Hearts</i> <i>Deep Pockets</i> High Financial but Low Emotional Capital
	Negative	III <i>Warm Hearts</i> <i>Empty Pockets</i> High Emotional but Low Financial Capital	IV <i>Pained Hearts</i> <i>Empty Pockets</i> Low Financial and Emotional Capital

Figure 1: Characteristics of the leadership role in the family-owned organization (Sharma, 2004)

***Leadership knowledge***

Maintaining the knowledge in the level of strategic and operational that previously retain in the previous leader is one of the main issue that typically occurred in family-owned organizations (Klenke, 2018).

***Relationship of the organization’s past and present***

Perspective of the successor to the past condition of the organization compare to present situation can be the source of problematic leadership succession issue in family-owned organizations (Miller, Steier, & Breton-Miller, 2003)

***Limited opportunity for the successor to express their vision***

The successor in the typical family-owned organizations is infrequently has the opportunity to express their thoughts and vision to improve the current state of the organization (Lefebvre & Lefebvre, 2015).

**Research Methodology**

This paper aims to identifies the possible success factors of the leadership succession in the family-owned organization. Literature study is adopted to identified these success factors. The selected literatures studied in this paper are mainly taken from international journals and international conference proceedings.

**Discussion**

Explorations in the selected academic literatures found several possible success factors for the leadership succession in the family-owned HEIs as the following.

***Knowledge transfer***

Having the consistent knowledge between the previous leader and the successor is an important factor to ensure the continuity of the organization’s vision in the level of strategic and operational of family-owned business, including the HEIs (Klenke, 2018). The aim of the knowledge transfer activities is to passing-on the valuable knowledge retained by the previous leader, especially the tacit knowledge, to the successor that will inherit the organization’s assets

(Klenke, 2018). It is expected that the appropriate knowledge transfer activities can help the HEIs to have a successful leadership succession (Klenke, 2018; Lefebvre & Lefebvre, 2015).

### ***Adaptability to the present situation***

The inability of the organizations in adapting the present situation can be an impediment for the family-owned organization to have a successful leadership succession (Miller, Steier, & Breton-Miller, 2003; Seymour, 1993). It is expected that adaptability of the leaders can give positive contributions to the success of the leadership succession in family-owned organizations (Seymour, 1993).

### ***The opportunity for the successor to express their vision***

It is considered to be rare, that the successor in the family-based organizations to have opportunity to express their own thought to improve the current state of the organization (Lefebvre & Lefebvre, 2015). This situation also occurred in family-based HEIs. In this regard, when the successor is given the opportunity to express their vision, it is expected this situation can help the HEIs to have a successful leadership succession.

### **Conclusion**

The family-owned HEIs are playing an important role in the higher education in Indonesia. In particular, this kind of organization has unique challenges, especially when there is the leadership succession taken place. When the leadership is changing, usually every process in the organization also has to change. To positively contribute to the success of the leadership succession, this paper identified several factors that possible to be the success factors of the leadership succession in the family-owned HEIs. These factors are knowledge transfer, adaptability of the leader to the present situation, and the opportunity for the successor to express their vision. As this paper only identified the possible success factor, it is recommended for future research to develop a conceptual model of the critical success factors of the leadership succession in the HEIs that quantitatively valid by the hypotheses testing.

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# Investment Decisions Using CAPM in the Coal Mining Sub-Sector Period 2012-2016

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## **Abstract**

The purpose of this research is to describe the application of CAPM (capital asset pricing model) in choosing the right stock for investment. The samples used are companies that are included in the coal mining sub-sector during the period of 2012-2016 which amounted to 22 companies but only 16 companies were used as samples, while this was influenced by sampling techniques conducted by purposive sampling. The data collection techniques used to support the implementation of this research are by means of Library Research and Internet Research (Online Research). Criteria for stock selection in this study is to choose an efficient stock, where the individual rate of return ( $R_i$ ) is greater than the expected rate of return [ $E(R_i)$ ]. The results of this study are between beta and expected return, a relationship that is inversely proportional, where if the beta value is high, the rate of return (return) will be low, and vice versa. Of the 16 companies studied, 11 companies were in efficient condition and 5 companies were in an inefficient condition. The investment decision that must be taken when the stock is in an efficient condition is to buy the shares, but if the conditions are not efficient then the action taken is the opposite, namely to sell the shares. This research will be useful for stakeholders in the capital market in making decisions and regulations

**Keywords:** Capital Asset Pricing Model, Beta, Efficient Stock

## **Introduction**

Indonesia is currently in an economic condition supported by a strong domestic market. As the fourth most populous country, the third largest force of democracy, the largest economy in Southeast Asia and the 13th in the world, so that investment in Indonesia is one of the most popular ways for local and foreign investors to obtain financial benefits to meet future needs. According to Susanti (2013) Every decision to invest in the capital market, investors pay attention to the level (of return rate of return) obtained and the risks it faces. A rational investor will choose stocks that provide a high level of profit with a low risk.

One method of calculating the profit (return) to risk (risk) of securities is to use capital assets pricing the model (CAPM). capital assets Pricing model (CAPM) is a balance model that describes relationships between risk and return is simpler. In equilibrium conditions, the level of profit indicated by the investor for a stock will be affected by the risk of the stock. Stock risk in a capital asset pricing model (CAPM) is measured by beta ( $\beta$ ). The expected rate of return [ $E(R_i)$ ] is determined by stock returns ( $R_m$ ), risk-free return ( $R_f$ ), and systematic risk ( $\beta_i$ ). With the method, capital asset pricing model (CAPM) investors are expected to measure the stock performance of a company.

In this study selected groups of shares included in the coal mining sub-sector consisting of 22 companies selected through several selection criteria. The formulation of the problem in this study is (1) What is the level of stock returns and risks by using the method capital assets pricing model (CAPM) in determining the decision to invest in coal mining sub-sector companies in 2012-2016? (2) How is the classification and valuation of shares of the coal mining sub-sector in 2012-2016 efficient and inefficient based on the method capital assets pricing model (CAPM)?

### **Literature Riview**

The CAPM model was introduced by Treynor, Sharpe and Litner. The CAPM model is a portfolio theory development proposed by Markowitz by introducing new terms, namely systematic risk (systematic risk) and non-systematic (risk unsystematic risk). Understanding Capital Asset Pricing Model (CAPM) is a risk (asset) pricing model in the market balance in a well-diversified portfolio. The Capital Asset Pricing Model (CAPM) attempts to explain the relationship between risk and return. Bodie et al. (2014) explained that the Capital Asset Pricing Model (CAPM) is the main outcome of the modern economy. The Capital Asset Pricing Model (CAPM) provides the right prediction between the risk relationship of an asset and the expected return (Expected Return). The Capital Asset Pricing Model (CAPM) is widely used because the Capital Asset Pricing Model (CAPM) produces sufficient detail accuracy in an application. The Capital Asset Pricing Model (CAPM) assumes that investors are planners in a single period who share the same perception of market conditions and look for the mean-variance of the optimal portfolio.

The Capital Asset Pricing Model (CAPM) also assumes that the ideal stock market is a large stock market, and investors are price-takers, no taxes or transaction fees, all assets can be traded in general, and investors can borrow or lend an unlimited number of fixed risk free rates. With this assumption, all investors have a portfolio with identical risks. The Capital Asset Pricing Model (CAPM) states that in an equilibrium state, market portfolios are tangential to portfolio average variance. So that an efficient strategy passive strategy. The Capital Asset Pricing Model (CAPM) implies that the risk premium of any individual or portfolio asset is the product of the premium risk in the market portfolio and beta coefficient.

### **Research Methodology The**

Type of research used is descriptive quantitative research. The population in this study was LQ45 stock for the period 2012 to 2016. The sampling method in this study used purposive sampling. According to Sugiyono (2017: 124) the definition of purposive sampling is a technique with certain considerations, from 22 companies listing in the coal mining sub-sector in a row from 2012 to 2016, namely 16 companies selected as research samples. The data collection techniques used to support the implementation of this research are by means of Library Research and Internet Research (Online Research).

## Data Analysis Techniques

### Calculate Individual Stock Return Rate (R<sub>i</sub>)

$$R_i = \frac{(P_{ti} - P_{t-1})}{P_{t-1}} \quad (1)$$

Keterangan:

- R<sub>i</sub> = Tingkat pengembalian saham individu (1)  
 P<sub>ti</sub> = Harga saham pada periode t  
 P<sub>t-1</sub> = Harga saham sebelum periode t-1  
 (Jogiyanto, 2013:206)

### Calculate Market Return Rate (R<sub>m</sub>)

$$R_m = \frac{IHSgt - IHSgt-1}{IHSgt-1} \quad (2)$$

Keterangan :

- R<sub>m</sub> = Tingkat pengembalian pasar (2)  
 IHSgt = Indeks harga saham gabungan periodet  
 IHSgt-1 = Indeks pasar sebelum ke t-1  
 (Jogiyanto, 2013:340).

### Calculate Risk-Free Stock Return Rate (R<sub>f</sub>)

Risk-free return rate is the rate of return on financial assets that are not risky. The measurement basis used in this rate of return is the interest rate issued by the government, namely Bank Indonesia certification (SBI).

### Calculating the Risk of Beta (β<sub>i</sub>)

$$\beta_i = \frac{\sum_{i=1}^n (R_i - \bar{R}_i) \cdot (\overline{R_m - R_m})}{\sum_{i=1}^n (\overline{R_m - R_m})} \quad (3)$$

Keterangan :

- β<sub>i</sub> = Beta sekuritas ke i  
 R<sub>i</sub> = Return realisasi sekuritas ke i  
 R<sub>m</sub> = Return pasar  
 $\bar{R}_m$  = Rata rata *return* pasar  
 $\bar{R}_i$  = Rata rata *return* realisasi sekuritas ke-i  
 N = Jumlah data  
 (Tandelilin, 2010:256).

### Calculating the Rate of Expected Returns.

$$E(R_i) = R_f + \beta_i [E(R_m) - R_f]$$

(4)

With E (R<sub>i</sub>) = The expected rate of stock returns, R<sub>f</sub> = Risk-free return, β<sub>i</sub> = Systematic risk level of each stock, E (R<sub>m</sub>) = The expected rate of return on the stock portfolio (Jogiyanto, 2013: 354).

### Description of Security Market Line (SML)

Security market line (SML) is a graphical representation of the CAPM model. SML is a line that connects the level return of expected[E (R<sub>i</sub>)] with systematic risk (β). The greater the betanya the greater the expected level of profit from the investment (Jogiyanto, 2013: 332)

## Findings

### Individual Stock Return Rate

Rate of return of individual shares is the income received in the form of dividends. Calculation of individual stock returns in this study uses a closing price monthly. The result of the calculation of individual stock returns of 16 stocks of companies sub-sector coal mining are:

Table 1: List of Return Individual Stock of Each Company

No.	Code	Company Name	Ri
1	ADRO	Adaro Energy Tbk	0.3064
2	ARII	Atlas Resources Tbk	0.0346
3	ATPK	Bara Jaya International Tbk	-0.1176
4	BSSR	Baramulti Suksessarana Tbk	0.0522
5	BUMI	Bumi Resources Tbk	0.5613
6	BYAN	Bayan Resources Tbk	0.1005
7	DOID	Delta Dunia Makmur Tbk	<b>1.7726</b>
8	HRUM	Harum Energy Tbk	0.1209
9	ITMG	Indo Tambangraya Megah Tbk	0.1537
10	KKGI	Resource Alam Indonesia Tbk	0.3040
11	MYOH	Samindo Resources Tbk	-0.0042
12	PKPK	Perdana Karya Perkasa Tbk	-0.1342
13	PTBA	Coal Bukit Asam Tbk	0.2145
14	PTRO	Petrosea Tbk	<b>-0.1584</b>
15	SMMT	Golden Eagle Energy Tbk	-0.0918
16	Toba	Toba Bara Sejahtera Tbk	-0.1189
<b>Maximum</b>			<b>1.7726</b>
<b>Minimum</b>			<b>-0.1584</b>

Source: Data Secondary processed, 2018

Based on the data in Table 1 it can be seen that based on the calculations that have been made on the shares of sub-company companies coal mining company, the highest stock return is **1.7726** at Delta Dunia Makmur Tbk (DOID), while the high stock return is caused by this because the condition of the sector starts to stabilize and the most important is the company's ability to manage the company's fundamentals, This is evidenced by the recorded profits and reduced debt as well as several cooperation contracts that have been implemented and several other targets of the company going forward, while the best compared to Delta Dunia Makmur Tbk, while the lowest stock returns are **-0.1584** at Petrosea Tbk (PTRO).

### Systematic Risks of Each Individual Stock

Beta( $\beta_i$ ) is a systematic risk inherent in a stock. Beta shows the relationship between the rate of return of a stock on the market rate of return (Jogiyanto, 2013: 375). Results of the systematic risk calculation 16 shares of companies that the research sample were:

Table 2: Individual Stocks Systematic Risk ( $\beta_i$ )

No	Code	Name	COVAR ( $R_i$ , $R_m$ )	Var Rom	Beta
1	ADRO	Adaro Energy Tbk	0.0020	0.0167	0.1193
2	ARII	Atlas Resources Tbk	-0.0025	0.0167	-0.1526
3	ATPK	Bara Jaya International Tbk	-0.0051	0.0167	-0.3049
4	BSSR	Baramulti Suksessarana Tbk	-0.0023	0.0167	-0.1351
5	EARTH	Bumi Resources Tbk	0.0062	0.0167	0.3742
6	BYAN	Bayan Resources Tbk	0.0167 -0.0867		-0.0014
7	DOID	Delta Dunia Makmur Tbk	0.0265	0.0167	<b>1.5857</b>
8	HRUM	Harum Energy Tbk	-0.0011	0.0167	-0.0663
9	ITMG	Bayan Resources Tbk	-0.0006	0.0167	-0.0335
10	KKGI	Resource Alam Indonesia Tbk	0.0020	0.0167	0.1168
11	MYOH	Samindo Resources Tbk	-0.0032	0.0167	-0.1914
12	PKPK	Perdana Karya Perkasa Tbk	-0.0054	0.0167	-0.3214
13	PTBA	Coal Bukit Asam Tbk	0.0005	0.0167	0.0273
14	PTRO	Petrosea Tbk	-0.0058	0.0167	<b>-0.3456</b>
15	SMMT	Golden Eagle Energy Tbk	-0.0047	0.0167	-0.2791
16	Toba	Toba Bara Sejahtera Tbk	0.0167 -0.3061		-0.0051
No	Code	Name of	COVAR ( $R_i$ , $R_m$ )	Var Rom	Beta
<b>Average</b>					<b>0.000029</b>
<b>Maximum</b>					<b>1.5857</b>
<b>Minimum</b>					<b>-0.3456</b>

Source: Secondary data is processed, 2018

Based on the results of research conducted and used in Table 2, it can be seen that the results The calculation shows that the average  $\beta_i$  is less than 1 (**0.000029 < 1**) so that in general 16 shares of the coal mining sub-sector that are used as research samples have a small systematic risk and tend to be less sensitive in responding to changes in market prices. The average low level of  $\beta_i$  is inversely proportional to the level of stock returns (return). The higher the  $\beta_i$  value, the expected rate of return on stocks will be smaller and so will the opposite, the lower the  $\beta_i$ , the greater the expected stock returns.

#### Expected Returns Rate The expected

Rate of return [E ( $R_i$ )] is the amount of profit expected by investors from the stock investments made. The results of the calculation of the expected rate of return of 16 company shares can be seen in the following table:

Table 3: Expected Stock Return Rate [E (R<sub>i</sub>)]

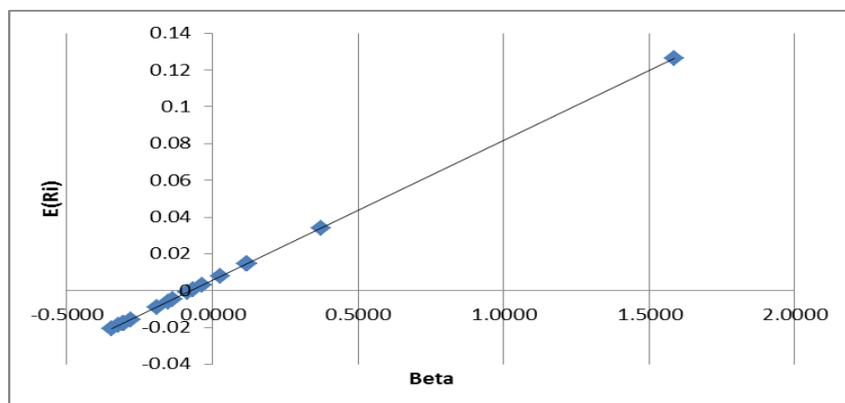
No.	Code	Company Name	E (R <sub>i</sub> )CAPM
1	ADRO	Adaro Energy Tbk	0.0147
2	ARII	Atlas Resources Tbk	-0.0060
3	ATPK	Bara Jaya Internasional Tbk	-0.0177
4	BSSR	Baramulti Suksessarana Tbk	-0.0047
5	BUMI	Bumi Resources Tbk	0.0341
6	BYAN	Bayan Resources Tbk	-0.0010
<b>7</b>	<b>DOID</b>	<b>Delta Dunia Makmur Tbk</b>	<b>0.1266</b>
8	HRUM	Harum Energy Tbk	0.0005
9	ITMG	Indo Tambangraya Megah Tbk	0.0030
10	KKGI	Resource Alam Indonesia Tbk	0.0145
11	MYOH	SamindoResources Tbk	-0.0090
12	PKPK	Perdana Karya Perkasa Tbk	-0.0189
13	PTBA	Coal Bukit Asam Tbk	0.0077
<b>14</b>	<b>PTRO</b>	<b>Petrosea Tbk</b>	<b>-0.0208</b>
No.	Code	Company Name	E (R <sub>i</sub> )CAPM
15	SMMT	Golden Eagle Energy Tbk	-0.0157
16	Toba	Toba Bara Sejahtera Tbk	-0.0178
<b>Maximum</b>			<b>0.1266</b>
<b>Minimum</b>			<b>-0.0208</b>

Source: Secondary data processed, 2018

The expected rate of return [E (R<sub>i</sub>)] is the amount of profit expected by investors from investment in shares made. The CAPM method itself is used to calculate the expected rate of return by using risk-free variables (R<sub>f</sub>), the average market return rate [E (R<sub>m</sub>)], and also the systematic risk of each share. Based on the results of calculations that have been done in table 3, it is known that the highest predicted return E (R<sub>i</sub>) is **0.1266**, that is Delta Dunia Makmur Tbk and the company with the lowest expected return (R<sub>i</sub>) is Petrosea Tbk as big as **-0.0208**.

### Description of Graph Security Market Line (SML)

Security market line (SML) or security market line (GPS) is a depiction graphically the CAPM model. SML shows the relationship between the amount of systematic risk (beta) and expected return. The following is a graphic picture of SML from the 16 shares of the company that was used as the research sample.



Source: Secondary data processed, 2018  
 Figure 1: Graph Security Market Line (SML)

Based on Figure 1, it can be seen that the greater the systematic / beta ( $\beta$ ) risk, the smaller the expected rate of return [E (Ri)]. This shows that there is no direct relationship between beta and [E (Ri)].

### Classification of Efficient Shares and Investment Decisions The

Following is a classification of shares as an investment decision based on calculations according to the theory of asset pricing model (CAPM):

Table 4: Investment Decision Classification

No	Code	Company Name	Ri	E (Ri) CAPM	Evaluation
1	ADRO	Adaro Energy Tbk	0.0147	0.3064	Efficient
2	ARII	Atlas Resources Tbk	-0.0060	0.0346	Efficient
3	ATPK	Bara Jaya International Tbk	-0.0177	-0.1176	Inefficient
No	Code	Company Name	Ri	E (Ri) CAPM	Evaluation
4	BSSR	Baramulti Suksessarana Tbk	-0.0047	0.0522	Efficient
5	EARTH	Bumi Resources Tbk	0.0341	0.5613	Efficient
6	BYAN	Bayan Resources Tbk	-0.0010	0.1005	Efficient
7	DOID	Delta Dunia Makmur TbkTbk	1.7726	0.1266	Efficient
8	HRUM	Harum Energy Tbk	0.1209	0.0005	Efficient
9	ITMG	Indo Tambangraya Megah Tbk	0.1537	0.0030	Efficient
10	KKGI	Resource Alam Indonesia Tbk	0.3040	0.0145	Efficient
11	MYOH	Samindo Resources Tbk	-0.0042	-0.0090	Efficient
12	PKPK	Perdana Karya Perkasa Tbk	-0.1342	-0.0189	Not Efficient
13	PTBA	Coal Mining Bukit Asam Tbk	0.0077	0.2145	Efficient
14	PTRO	Petrosea Tbk	-0.0208	-0.1584	Inefficient
15	SMMT	Golden Eagle Energy Tbk	-0.0157	-0.0918	Inefficient
16	Toba	Toba Bara Sejahtera Tbk	-0.0178	-0.1189	Inefficient

Source: Secondary data is processed, 2018

Based on Table 4 , there are 11 coal mining sub-sector companies whose shares are classified as efficient and 5 companies whose shares are classified as inefficient. The criteria in determining investment decisions are choosing efficient stocks, stocks that have returns individual greater than the expected rate of return [ $R_i > E(R_i)$ ] while eliminating inefficient stocks, namely stocks that have an value return individual less than the rate of return expected [ $R_i < E(R_i)$ ]. Investment decisions made on efficient stocks are considering buying these shares, and the investment decisions made on inefficient stocks are considering selling these shares.

### Discussion and Conclusion

#### Expected Relationship Risk and Rate of Return

Based on the calculation, it is found that the average high and low beta ( $\beta_i$ ) is inversely proportional to the level of stock (returns return). Where the higher the beta value ( $\beta_i$ ), the expected rate of return on the stock will be smaller. The results of this study are in accordance with the results of research conducted by (Sekarwati, 2015), Istiqomah (2017), and Putra et al. (2013) that the high and low beta is inversely proportional to the stock returns.

**Relationship between Individual Return Rate (R<sub>i</sub>) and Expected Return Rate E (R<sub>i</sub>)**

The result of the calculation states that if the individual stock level (R<sub>i</sub>) is greater than the expected rate of return [E (R<sub>i</sub>)] then the stock is worth considering. Whereas if the amount of individual shares (R<sub>i</sub>) is smaller than the expected rate of return [E (R<sub>i</sub>)] then the shares are not feasible to own. This result can certainly give investors an idea in considering investment. The company as a company certainly must make improvements from the internal side of the company so that in carrying out its business activities can provide good performance, with good performance it will have an impact on the assessment of investors to buy the company's shares because they are considered capable of giving a return. In addition, the government must also actively participate in providing security guarantees and continue to improve the country's economic fundamentals in order to create foreign investor confidence, especially in the case of Indonesian capital. The results of this study are in accordance with the results of Putra & Yadnya (2013), Putra et al. (2013), Istiqomah (2017), Hidayati et al. (2014), Seftyanda et al. (2014), and Sekarwati (2015) which shares are worthy of owned is the stock that is [R<sub>i</sub> > E (R<sub>i</sub>)], while shares that are not feasible to own are shares that are [R<sub>i</sub> < E (R<sub>i</sub>)].

**Conclusions**

The results of this study are between beta and expected return there is a relationship that is inversely proportional, where if the beta value is high then the rate of stock (return) will be low, and vice versa. Of the 16 companies studied, 11 companies were in efficient condition and 5 companies were in an inefficient condition. It is expected that research can be used as a reference and additional information for investors and potential investors who will invest in stocks. It is very important for investors to invest the excess funds they have in stocks that are efficient so that the risks to be faced can be minimized properly, so that the investor's goal of getting return the expected can be achieved. For further research with different samples and research periods, so that developments regarding capital markets, especially stock investments, can always be known.

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# Product Differentiation, Celebrity Endorsement and Purchase Intention: Case Study of Makuta Cake Bandung, West Java, Indonesia

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## Abstract

**Purpose:** the purpose of this study is to explain the effect of product differentiation and endorser celebrities on purchase intention.

**Design/methodology/approach:** This study uses data analysis with SmartPLS software version 3.0. PLS (Partial Least Square) is a structural equation model (SEM) based variants that can simultaneously perform testing at the same measurement model structural model testing. Measurement model used for validity and reliability, while the structural model used to test the causality (hypothesis testing predictive models).

**Findings:** first hypothesis showed a significant influence between product differentiation variables on purchase intention. the second hypothesis shows that celebrity endorsement has an influence on purchase intention.

**Research limitations/implications:** this research was only conducted in one of the cities in the country of Indonesia.

**Practical implications:** The result of this present study could be use for marketing practice.

**Originality/value:** This study examine about famous culinary in bandung, west java, indonesia.

**Keywords:** Product Differentiation, Celebrity Endorsement, Purchase Intention

## Introduction

Bandung city is one of the tourist destinations in Indonesia. Bandung as atourism destination is considered perfect in creativity; and the number of tourists who intend to revisit Bandung is high, meaning that Bandung is a good place to revisit (Ratih Rurriyati and Dara Myrna Pusparani, 2015). Bandung along with four other cities / regions namely Yogyakarta, Solo, Semarang, and Bali, designated as Indonesia's culinary tourism destination by the Ministry of Tourism. In the future, cities are expected to be included in the UNESCO world heritage site, remains a positive impact for the country. (Pikiran-Rakyat.com, 2015). In 2015, an estimated number of foreign tourists to Indonesia reached 10 million tourists to the foreign exchange earnings of about 10 billion US dollars This foreign exchange earnings of about 30 percent comes from culinary or about 30 billion US dollars. Culinary business competition in Bandung

increasingly tight with many new brand emergence. cake and bakery business in Bandung is increasingly varied. It requires businesses to be more competitive. This culinary business opportunity is utilized by entrepreneurs from large investors, small and medium entrepreneurs including among celebrities. Now one of the culinary business is on the rise is bandung Makuta Cake (wisatabdg.com, 2017). in entering the competition in this culinary industry makuta cake owned by the celebrities named Laudya Cynthia Bella must determine strategy. One of the factors that influence the competitive advantage of a product in the market is the diversification of products. product diversification is developing new products or markets or both, in order to pursue growth, increased sales, profitability, and flexibility santoso (2011). According Dwi Minastitik (2000) steps taken by a company to differentiate itself from competitors if the product has a uniqueness and high value for consumers. According to Lewis and Booms (2000) differentiation is one type of competitive advantage that the company has to win the competition in the global market. Product differentiation can be done through the form, privileges, quality of work, quality of conformity, durability, reliability, easy to improve, style, and design, so that the differentiation results provide interrelated contribution purchase intention.

Advertising is a popular and challenging form of marketing communications. With increasing competition for consumer attention and new product introductions, advertisers are being forced to use celebrities that can attract attention. These celebrities can help the ads be more attractive, thus enhancing communicative ability by reducing noise in the communication process (Young, Moses & Putit, 2012). Celebrity endorsements have also been found to produce better memory or recognition on behalf of brands (Friedman & Friedman, 1979; Petty, Cacioppo & Schumann, 1983). Many studies also show that celebrity endorsers do well to influence important advertising effective actions such as attitudes toward advertising (AAD), brand attitudes (ABR) and purchase intentions (PIN) (Atkin & Block, 1983; La Ferle & Choi, 2005; Petty et al., 1983). Furthermore, a celebrity support strategy has the ability to create images for products through transfer of meaning (McCracken, 1989). For this benefit, companies are willing to pay a premium for celebrities to support their brand in advertising. Shimp (2003: 460) argues that Celebrity Endorser is using the celebrities as an advertisement star in the media, ranging from print media, social media, and media televisi. In addition, celebrities are used because of the attributes of their fame including their good looks, courage, talent, elegance, strength, and sexual attraction that often represent the appeal desired by the brand they are advertising. Based on this background, the formulation of the problem in this research is how the influence of product differentiation and celebrities endorsement affect the purchase intention. Based on the formulation of the problem, the purpose of this research is how the influence of product differentiation and celebrities endorsement affect the purchase intention.

## **Literature Review**

### *Product differentiation*

According to Kotler (2003, 347) "differentiation is defined as an act designed a series of meaningful distinctions to differentiate a firm offer with a competitor's bid. This strategy requires the development of unique goods or services of unmatched by relying on customer loyalty to the brand. The company can offer a higher quality, performance, or unique features that each can justify a higher price. Miller (1987) argues that differentiation products companies tend to invest in research and development activities to improve their innovative capabilities and improve their ability to compete with their competitors innovate. According to Kotler (2007: 09) product differentiation is an action for designing some significant differences to distinguish the company deals with a competitor's bid. The difference it made to have the advantage of value and benefits to meet the needs of customers According to Kotler (2005: 350) indicator in Product Differentiation among others: (1) Form (Form), (2) Feature (Feature),

(3) Quality of Performance (Performance Quality), (4) Compliance (Conformance Quality), (5) Durability (Durability), (6) Reliability (Reability), (7) Easily Fixed (Repairability), (8) Style (Style), and (9) Design (Design). In this study, the authors use five indicators that were considered appropriate to the type of products: (1) Form (Form), (2) Feature (Feature), (3) Quality of Performance (Performance Quality), (4) Compliance (Conformance Quality).

Forms (Form) products can be differentiated by shape or size, model or physical structure of the product. Feature (Feature) the product offered has a feature or features that are different and complement the basic functions of the product. The attempt to be the first to introduce new features that are considered valuable is one of the most effective ways to compete. Quality Performance (Performance Quality) product performance can be defined as the level of the basic characteristics of the product. The more quality product, the higher-level characteristics. Superior product performance impact on repeat purchases are more, customer loyalty, and positive impression on the customer. Suitability (Conformance Quality) Buyers expect quality products have conformity with the standard or specification is high. Quality conformity is the level of conformity and fulfillment of all units produced to the specifications of the promised target. Durability (Durability) The buyer expects some products have a normal life and or weight. Products which have advantages in durability will attract more customers to pay more for products that are expected. Reliability (Reability) Buyer will pay more to get a product that has the reliability. Reliability is a measure of the probability that a particular product will not be damaged or fail within a certain time period. Easily Fixed (Repairability) The buyer selects the product easy to repair, which is a measure to improve product ease when damaged or failed. Customers interested in the types of products that easily corrected also for reasons of time and cost efficiency can be improved if its own. Style (Style) Describe the appearance and feeling generated by the product to the buyer. Style influence on customers by showing the uniqueness and performance products to attract customers to buy. Design (Design) Design become one of the most powerful ways potential to differentiate and position the company's products and services. The design is also a factor that will often be the hallmarks of the company, namely as the totality of features that affect the appearance and function of specific products required by customers. Design parameters are all forms of quality, features, performance, suitability, durability, reliability, ease of repair, and style.

### *Celebrity Endorsment*

Creativity infinite young people in the process of marketing to influence the attitudes and behaviors that look could become a benchmark of the development of the marketing world today, especially in the field of branding. Can be seen by consumers often assume that the celebrities used as commercials is an appreciation that they have achieved, or idol which is the main attraction for consumers. Shimp (2003: 460) argues that the celebrities's Celebrity Endorser is used as commercials in the media, ranging from print media, social media, and the media television. In addition, celebrities are used because of the attributes of their fame including their good looks, courage, talent, elegance, strength, and sexual attraction that often represent the appeal desired by the brands they advertise. Celebrities are considered more attractive (liked) by consumers and therefore more easily recognizable (Kelman, 1961). Product Differentiation is the creation of a product or product image quite different from the products that have been circulated with the intent to attract consumers (Griffin, 2003: 357). More and more celebrities are involved in the business not only as an endorser, but also has the role of financial and decision-making in this business. Hunter (2010, p.2) defines a celebrity as an individual entrepreneur known for their famous and take part in owning or running a business (or portrayed as doing it). Launching a new product they are usually reported by the media; therefore, creating publicity for celebrities and businesses. Relationships with companies making celebrities as endorsers of companies and products. It has been understood

that by default all employers' celebrity is a celebrity endorser, but not all celebrity endorser is a celebrity entrepreneurs. Because employers are also celebrity endorser, a reasonable way to investigate celebrities entrepreneurship is through celebrity endorsements framework Shimp (2007) classifies five special dimension celebrity endorser to facilitate communication effectiveness. Special celebrity endorser five dimensions described by the acronym TEARS, namely: trustworthiness (Trustworthy), Expertise, Attractiveness (Fascination), Respect (Quality Appreciation) and Similarity (Similarity with the intended audience)

*Purchase Intention*

Mowen and Minor (2002: 322) state that: "Consumer behavior consists of all consumer actions to acquire, use and dispose of goods or services. Some consumer behavior is to buy a product or service, provide word of mouth information about an advertised product and services that have been informed to others, forget the product and find out information about a desired product. Before making a decision, consumers often develop a desire to behave according to the possibility of action that will be done. The desire to behave can be interpreted as buying consumer interest to behave according to their own views in making the decision to discard and use the product or service ". Dimensions purchasing decisions according to Kotler and Armstrong (2008: 146), so that the indicator for the purchase decision are: Selection of products / services, Brand choice, Timing and the choice of method / means of payment.

**Theoretical Framework and Hypothesis Development**

*Theoretical Framework*

the study proposes a conceptual model (Figure 1). This model shows the relationship between the strategies of product differentiation , Celebrity Endorsement on Purchase Intentions

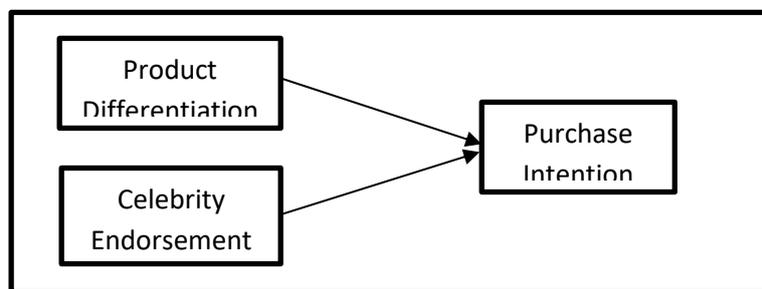


Figure 1: Theoretical Framework

*Product Differentiation and Purchase Intention*

Differentiation strategy undertaken by the company on its products encourages excellence in competition. With the implementation of good differentiation and superior to, the company will be able to win the competition, because consumers would prefer to buy and use a product from a company that is superior.

Research conducted by Mohammad Reza Ansyari (2016) states that research results obtained by the author Product Differentiation positive and significant effect on purchasing decisions Honda. Additional research is also done by Anisa Rimayati (2009) with the title stating that there are positive influence between product differentiation and the image on purchasing decisions

H1 : Product differentiation will have significant relationship with purchase intention

*Celebrity Endorsement and purchase Intention*

According to Clark & Horstman (2003) states that the product is in endorsement by the celebrities will make more purchases by consumers with higher prices

Mishra and Beauty (1990) Petty et al (1983) and Menon et al (2001) showed that celebrity endorsements improve brain memory. Petty et al found that the subjects tended to like the product more when supported by famous athletes than the average citizen Baber region, California. Mishra and Beauty found that the subjects tended to rate the product as better and higher quality if supported by celebrities.

According to Rodriguez (2008: 97), says that in relation to the credibility of the endorser, the only qualities that influence attitudes toward advertising and purchase intent are: Experienced, Knowledgeable, Qualified and Reliable. Spokesman who have these qualities more persuasive and better able to positively influence the attitudes toward advertising and intention to buy

H2 : Celebrity endorsement will have significant relationship with purchase intention

**Method***Design*

To test the hypothesis, the multi item scales used in previous studies were identified and modified to fit this research model. The questionnaire was designed to find out the respondents related to the effect of product diversification and celebrity endorsement on consumer purchase intention. The first independent variable is product differentiation. According to Kotler (2005: 350) product differentiation measured by 9 dimensions are Form, Feature, Performance Quality, Conformance Quality, Durability, Reability, Repairability, Style and Design. While the second independent variable is celebrity endorser, measured with five dimensions. celebrity endorser according to Shimp (2007) Trustworthiness, Expertise, Attractiveness, Respect and Similarity dimensions. Independent variable in this research that is purchase intention. according to Kotler and Armstrong (2008: 146) purchase intention can be measured by Selection of products and services, Brand selection, Timing and Choice of methods or means of payment. Each of the variables is measured using a 5-point likert scale: "How do you agree or disagree with this statement?" (1 = strongly disagree and 5 = strongly agree). 30 visitor makuta bakery Jl. Van Deventer no. 2 was selected to be a research sample through the "convenience sample" technique

*Data Analysis Techniques*

This study uses data analysis with SmartPLS software version 3.0. PLS (Partial Least Square) is a structural equation model (SEM) based variants that can simultaneously perform testing at the same measurement model structural model testing. Measurement model used for validity and reliability, while the structural model used to test the causality (hypothesis testing predictive models).

The First step in the analysis was the evaluation of the measurement model (Hair et al., 2014). Internal consistency reliability was tested by calculating Cronbach's alpha and composite reliability for the outer loadings. The convergence of indicators on the construct that they are measuring was tested by calculating the average variance extracted. Constructs were tested for discriminant validity by ensuring that their outer loadings were greater than their cross-loadings on all other constructs. Because informal learning was defined as a second order construct, tests of convergence and discriminant validity were applied to confirm the distinct first order constructs.

The second step in the analysis was the evaluation of the structural model {Hair et al., 2014 #4384}. In order to include the second order constructs in SmartPLS, we adopted the repeated indicators approach (Wetzels et al., 2009). The coefficients of determination (R<sup>2</sup>) were calculated for all endogenous variables. For each path in the model, the size of the path coefficients were calculated and bootstrapping was used to determine their significance.

## Findings

### *The Measurement Model*

According to Cooper and Schindler (2014) measurement model is also called outer model can be used to test the construct validity and reliability of the instrument, measurement model used to test the construct validity and reliability of the instrument,

Table 1: Outer Loading

Indicator	Factor		
	1 Purchase Intention	2 Celebrity Endorsement	3 Product Differentiation
PI 1	0.654		
PI 2	0.806		
PI 3	0,773		
PI 4	0.598		
CE 1		0.717	
CE 2		0.704	
CE 3		0.787	
CE 4		0.665	
CE 5		0.667	
PD 1			0.659
PD 2			0.692
PD 3			0.732
PD 4			0.783
PD 5			0.797

Based on table 1 shows that all indicators in this study have values above or greater than 0.5, it can be concluded that all variables in this study valid

Reliability test is used to test the accuracy of questionnaire measurement result that closely related to trust problem. A test level is said to have a degree of confidence when the test gives the right result, a variable is said to be quite reliable when the variable has the value of the Average Variance Extracted (AVE) and Cronbach Alpha greater than 0.5 (Henseler et al., 2009). While the composite reliability should be above 0.6 (Henseler et al., 2009). Here are the results of the reliability test in the study.

### *The Structural Model*

In assessing the model with PLS begins with a look at the R-square for each latent variable dependent, here is the value of R square of latent variable dependent, The result shows that the value of R Square research variable dependent that is of purchase intention of 0.580, proving that purchase intention can be affected by variable product diversification and Celebrity Endorsement by 58%, while the remaining 42% or d by other variables not examined in this study.

Testing the hypothesis in this study is based on the values contained in the structural analysis model, the significance level obtained from the comparison of the value of t value with t table value that is equal to 2,051, the following output results of hypothesis testing using smartPLS 3.0

Tabel 2: Path Coefficients

	Original Sample	Sample Mean	Standard error	T statistic	P Value
Celebrity Endorsement - Purchase Intention	0.543	0.569	0.099	5.457	0.000
Product Differentiation - Purchase Intention	0.325	0.335	0.131	2.482	0.013

#### *First hypothesis Testing*

Based path diagram and table 6 shows that the t value of product differentiation towards purchase intention is equal to 2,482 bigger than t table with P values of 0.013 is below 0.05, it is proved that the *Product differentiation* significantly affect purchase intention (hypothesis 1 accepted)

#### *Second hypothesis Testing*

Based on the path diagram and table 6 it can be seen that the t value of celebrities endorsement on purchase intention is 5.457 bigger than the value of t table, with P values of 0.000 smaller than 0.05, this proves that Celebrity Endorsement significantly to the purchase intention (Hypothesis 2 accepted)

## **Discussion and Conclusion**

### *Discussion*

From the results presented above show that Product differentiation significantly affect purchase intention. In 2017 the company offers 5 types of flavor variants that make consumers can choose products according to taste. the company also offers a premium product called "makuta gold series" consisting of 2 flavors namely makuta peyeum and Makuta Cho Chezz. Consumers like flavor variants are offered from crowded queues in every store. Products offered at varying prices, product prices starting from Rp. 59,000, - up to Rp. 75.000, -. with a relatively affordable price makes the product desirable by the customer. every day customers are willing to queue to get the product. The more varied the products offered will increase purchase intention, the answer to the first hypothesis is also consistent with research conducted by (Susanto and Rahmi, 2013), in his research stating Hypothesis tests conducted found that the differentiation of the products have a significant effect to the purchase intention on fixie bikes in the city of Padang. This result is consistent with that expressed by Simamora (2003) where purchase intention is determined by several factors, among which the quality of the product quality and design of products where quality of product quality and product design is part or element of product differentiation. The second hypothesis in this study is the influence of celebrity endorsement of purchase intention, the result of hypothesis testing states that Celebrity Endorsement affects purchase intention. Selection of celebrities as endorsement celebrities has an impact on product value. An interesting celebrity can affect the buying interest of someone who sees an ad and buys an advertised product. Fascinating celebrities can increase purchase intention. This result is consistent with research conducted by (Ahmed et al., 2015) stating that there is a significant impact of celebrity endorsement on purchase intention. Although there are also conflicting studies such as research conducted by Syed Rameez ul Hassan, R. A. J. (2014) The results show that endorsements through local and Indian celebrities have a similar and insignificant effect on purchasing intentions in Pakistan, with no major differences with celebrity country of origin. In the study, the relationship between celebrity consumers was assessed and confirmed that the celebrity attribute (Local or Indian) is not so important to buy for an existing product but quality, brand image and brand loyalty are key factors to buy.

### Conclusion

From the description of research results and research discussion as described in the previous description, it can be drawn some conclusions, among others, as follows:

1. Product Differentiation significantly affect purchase intention, it is intended by the value of  $t$  is greater than  $t$  table  $5,457 > 2,051$ , and the value of  $P$  value  $0.000 < 0.005$ , which means that the increasing differentiation of products will also increase purchase intention.
2. Celebrity Endorsement positive and significant effect on purchase intention, this is indicated by the value of  $t$  is greater than  $t$  table is  $2,482 > 2,051$  and the value of the  $P$  value equal to  $0.013 > 0.05$ . Which means that the celebrity's role in supporting the product (celebrity endorsement) will affect purchase intention products makuta cake

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# The Effect of Store Atmosphere and Merchandise on Customer Experiences: Survey of Department Store Customers in Bandung City, Indonesia

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## **Abstract**

**Purpose:** The purpose of this research is to find out: 1. The atmosphere of a store ,merchandise, and a customer experience department store in the city of Bandung .2.The effect of store atmosphere and merchandise on experience simultaneous customers at department stores in the city of Bandung.

**Design / methodology / approach:** the nature of this research is descriptive and verification, with survey methods. This type of research is causality, cross sectional time dimension, department store analysis unit. The observation unit is a department store customer in Bandung. Data collection with primary and secondary data, primary data collection by observation, interview and questionnaire, while secondary data with literature and literature study. Analytical tool with multivariate structural equation modeling (SEM) with Lisrel 88 software.

**Findings:** the results of the study show that the store atmosphere, merchandise and customer experience are good even though there are still some indicators that are not good. The results of the hypothesis show that the store atmosphere gives a greater influence on customer experience than merchandise.

**Research limitations:** This study was only conducted at department stores in the city of Bandung.

**Practical Implications:** The results of this study are expected to be a consideration for managers of department stores in developing marketing policies, especially in store atmosphere, merchandise and work experience.

**Originality / value:** The research model and analytical unit used in this study did not exist before.

**Keyword:** Department Store, Store Atmosphere, Merchandise, Customer Experience, Bandung

## **Introduction**

The retail business that was originally viewed only as a provider of goods and services has developed into a place of recreation and entertainment (Zhang, et. Al, 2011: 214). In a high level of competition, a company is expected to have a competitive advantage, Terblanche (2009: 5) states that to achieve competitive advantage, the contemporary tendency among retailers is to offer customers an attractive and memorable experience. This can be considered as an effort to create an emotional relationship with customers through careful planning of tangible and intangible elements. The interaction between the customer and the environment in which they are shopping is the starting point for establishing relationships between retailers and customers. This interaction has a rational and emotional dimension and helps value creation. A well designed customer experiences, makes it very difficult for other retailers to emulate. There are a number of elements needed for a positive customer experience including

store layout, price, quality, and variety of items, ease of movement and clarity of the alley to find goods are some elements that need to be owned as part of a boutique service scape or clothing store (Terblanche, 2009 : 5-17)

Coley and Burgess (2004: 282) suggested that store atmosphere is one of the elements of retail marketing mix that is related to the creation of a shopping atmosphere. The atmosphere is the key to attracting and impressing consumers with the shopping experience inside stores. A store must create and manage an impressive store atmosphere. This can help to distinguish themselves and create competitive advantage from competitors. Consumers will prefer to shop if they feel comfortable when interacting with the shopping environment and most likely will return to a store (Soars: 2009: 286). Then to build a retail stakeholder, a strategy is needed, one of which is by providing a memorable experience in a store and the goods sold will make the customer return to the store. (Margaret, 2012: 21). These researches were also supported by the results of research conducted by Chen and Kuang (2007: 248) at three department stores in Taipei. From the three department stores it was concluded that service quality in merchandise (merchandise price suitability and merchandise guarantee) and personal factors (sales person friendliness) could not reach customer satisfaction standards.

Indonesia is the fourth most populous country in the world. According to the statistics center (BPS), Indonesia's population in 2017 reached 261 million. West Java is a province with the second most populous population in Indonesia. The population growth rate in West Java is close to 2%. The city of Bandung is the capital of the city with a population of 3,534,100 to 2015 and is the second most populous city in West Java. With a very large population, very large needs and increased purchasing power make retail business attractive.

Traveling while shopping is fun. The city of Bandung which is known as the flower city and dubbed Paris van Java is the champion, a variety of shopping tourist destinations easily find through the mall, department stores, FO to distribution outlet, not only local products but also foreign products with an affordable price. Department Store, according to RI Minister of Trade Regulation No. 70 / M-DAG / PER / 12/2013 concerning modern markets, namely stores that sell retailly various types of consumer goods, especially clothing products and equipment, with an area of more than 400 m<sup>2</sup> and have arrangement of goods based on gender or age level of consumers, for example Sogo, Matahari, Ramayana, Yogya and so on.

To provide satisfying services to customers is one of the department's focuses so that every customer gets the best shopping experience at every store. Allegedly, department stores in Bandung have not been able to provide memorable experiences to their customers, this can be seen from the web that is owned by department stores and newspapers in Bandung which contains customer complaints at department stores, including difficulties for customers to interact and access products, information submitted department stores to customers have not been consistent, slow in serving consumers so consumers wait long and lack attention to customers (regardless of customer presence).

The key to providing memorable experiences to customers can be through the store atmosphere and the merchandise offered, but from a preliminary survey conducted by the author, department stores in Bandung have not fully provided memorable experiences to their customers, this can be seen from customer complaints about store atmosphere and merchandise. The department store has not been able to satisfy customer desires.

From the results of the initial interview and the suggestion box provided by several department stores in Bandung, there are complaints from customers that can be seen in the table below.

Table 1: Customer Complaints on the Atmosphere of Stores and Merchandise

No	Shop Atmosphere	F	%	No	Barang dagangan	F	%
1	Unfriendly and inpolite salesman	11	36,6	1	Incomplete merchandise	11	36,6
2	The alley is too narrow	8	26,6	2	Prices that do not match the quality	9	30
3	3 Absence of music and aroma	7	23,4	3	Less fashionable	6	20
4	Less attractive display	4	13,4	4	No Merchandise guarantee	4	13,4
	<b>Total</b>	<b>30</b>	<b>100</b>		<b>Total</b>	<b>30</b>	<b>100</b>

Source: Interview with Respondents

The author is interested in researching about customer experience, especially at department stores in Bandung, because this research on customer experience at department stores, as well as their relationship to store atmosphere and merchandise is still rare, and allegedly not good. From the phenomena that have been described above, this study has the title: The Effect of Store Atmosphere and Merchandise on Customer Experience (Survey of Department Store Customers in Bandung).

From the explanation, the formulation of the problem that will be revealed:

1. How are the store atmosphere, merchandise, and customer experience according to customer's perceptions.
2. Does the store atmosphere and merchandise affect the customer experience simultaneously.

## Literature Review

### *Store Atmosphere*

According to Levy and Weitz (2012: 690), the atmosphere of the store environment is the ability to design the purchasing environment through the arrangement and selection of physical facilities, lighting, color, music, and aroma and merchandise which all of them can affect consumer emotions and perceptions and most importantly their purchasing decisions. The atmospheric store theory in this study comes from Turley (2000: 193), Ballantine (2010: 643) and Patrick Bohl (2012: 15) and has included the store atmosphere dimensions mentioned by Elizabeth Visser (2006: 58) and Jayant & Kulkarni (2012: 96) for clothing stores.

Table 2: Store Atmosphere Dimensions

Turley, Ballantine dan Patrick Bohl	Elizabeth	Kulkarni
<ul style="list-style-type: none"> <li>- external</li> <li>- general interior</li> <li>- layout and design.</li> <li>- point of purchase (POP / interior display) and decoration</li> <li>- human</li> </ul>	<ul style="list-style-type: none"> <li>- Friendliness of salesman</li> <li>- Good feeling about the shop</li> <li>- Color combinations</li> <li>- neutral aroma</li> <li>- music</li> <li>- general atmosphere</li> </ul>	<ul style="list-style-type: none"> <li>- The interior and exterior of the shop are impressive.</li> <li>- Shop personnel and buyers.</li> <li>- Fun, beautiful.</li> <li>- Display and creative product settings on the shelf.</li> <li>- Displays attractive and personal store behavior</li> </ul>

Source: Various opinions (2014)

### *Merchandise*

According to Dunne, Lusch, and Geble (2008: 277) merchandise is a product group that is closely related to each other which is shown for end use which is sold to the same consumer

group or with almost the same price range. The theory of merchandise uses the opinion of Elizabeth Visser (2006: 56) for clothing stores and Chen-Kuang-Juang (2007: 249) for department stores.

Table 3: Dimensions of Merchandise

Elizabeth Visser	Chen-Kuang-Juang
<ul style="list-style-type: none"> <li>- quality</li> <li>- Availability</li> <li>- Accessories</li> <li>- style / fashion</li> <li>- diversity</li> <li>- Price</li> <li>- Special clothes</li> </ul>	<ul style="list-style-type: none"> <li>- Guarantee of merchandise and return of damaged goods</li> <li>- Quality of merchandise</li> <li>- Complete merchandise</li> <li>- Suitability of the price of goods</li> </ul>

Source: Various opinions (2014)

**Customer Experience**

According to Lemke (2011; 869), customer experience is conceptualized as a holistic and subjective response of customers to direct and indirect meetings with the company. Customer experience uses the opinions of Lemke (2011: 869) and Hatane (2013: 11), there are 8 dimensions of quality of customer experience which include:

1. Accessibility
2. Competence
3. Customer recognition
4. Willingness to help
5. Personal treatment
6. Problem solving
7. Fulfillment of promises
8. Value for time

The results of research conducted by Ballantine et. al. (2010: 641-653), Jayant and Kulkarni (2012: 89-99), Coley and Burgess ((2004: 282-295), stated that: the combination of atmospheric elements if carried out optimally can touch the emotions of consumers and provide a shopping experience which are fun.

The results of research conducted by Arnold & Ryenolds (2005: 78), Senjaya and Samuel (2013: 1-5), Diller et. al. (2006: 17-25), states that emotional value can be formed from an experience of products / services, including: merchandise offered (variety of products and product quality that continues to increase).

The results of research conducted by Terblanche, (2009: 5-17) states that there are a number of elements needed for positive customer experience including layout, price, quality, and variety of items, ease of movement and clarity of the aisle to find goods are some of the elements need to be owned as part of a service scape boutique or clothing store.

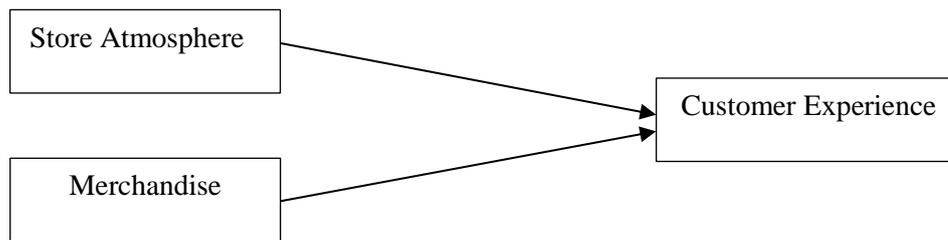


Figure 1: Theoretical Frame Work

**Hypothesis:**

Store atmosphere and merchandise affect the customer's experience simultaneously.

**Method**

This research is descriptive and verification. Descriptive research is research that aims to present a structured, factual and accurate description of the facts while, verification research is used to determine the relationship between variables through testing hypotheses using statistical calculations (Moh. Nazir, 2013: 240).

The method used is a survey research method is data collection carried out on an object in the field by taking samples from a population and using a questionnaire as the main data collection tool, and because this study also wants to explain the causal relationship between variables through hypothesis testing, this study also uses explanatory research (explanatory survey).

This type of research is causality which aims to explain the relationship between variables, while the time dimension is cross-sectional (Cross-sectional) which reflects the picture of a situation at a certain time.

Unit of analysis: Department Stores in Bandung, including: Matahari, Metro, Sogo, and Yogya (total department stores: 15 outlets). Observation Unit: Department Store Customers in Bandung. Sample size: using a power test obtained as much as 280. Data collection techniques are questionnaires, interviews, and observations. The sampling technique uses simple random sampling. Analysis technique is multivariate Structural Equation Modeling (SEM), software Lisrel 8.8. Sample distribution can be seen in the table below:

Table 4: Distribution of Research Number of Sample

No.	Department Store	Number of Sample
1.	Matahari	$500 / 1850 \times 280 = 76$
2.	Metro	$300 / 1850 \times 280 = 45$
3.	Sogo	$250 / 1850 \times 280 = 38$
4.	Yogya	$800 / 1850 \times 280 = 121$
	<b>Total</b>	<b>280</b>

**Findings**

The following assessment criteria are used based on the average response score of respondents as follows:

Table 5: Classification of Average Score Criteria

No.	Interval Score	Category
1	1,00 - 1,79	Very Uncomfortable / Very Incomplete / Very Impressive / Very Bad
2	1,80 - 2,59	Uncomfortable / Incomplete / Not Impressive / Not Good
3	2,60 – 3,39	Quite comfortable / quite complete / Pretty Memorable / Good
4	3,40 – 4,19	Comfortable / Complete / Memorable / Good
5	4,20 – 5,00	Very Comfortable / Very Complete / Very Memorable / Very Good

Source: The results of the processed data

• *Store atmosphere*

The total atmospheric score of department stores in Bandung is comfortable, although there are still indicators that are quite comfortable, namely: the uniqueness of the storefront, the convenience of the department store window and the frequency of changes to the store display.

• *Merchandise*

Total merchandise scores in Bandung include complete criteria, although there are still indicators that are sufficient criteria, namely: price comparison with other department stores, provision of product quality assurance and guarantee of return of damaged products.

• *Customer Experience*

The total score of department store customer experience in Bandung is an impressive criterion, although there are still indicators that are sufficient criteria, namely: ease of access to products and suitability of fulfillment of appointments by department stores in Bandung.

• *The Effect of Store Atmosphere and Merchandise on Simultaneous Customer Experience*  
 From the results of calculations for hypotheses the effect of store atmosphere and merchandise on customer experience can be obtained structural equations hypothesized as follows:

$$\eta_1 = 0,458\xi_1 + 0,453\xi_2 + 0,285$$

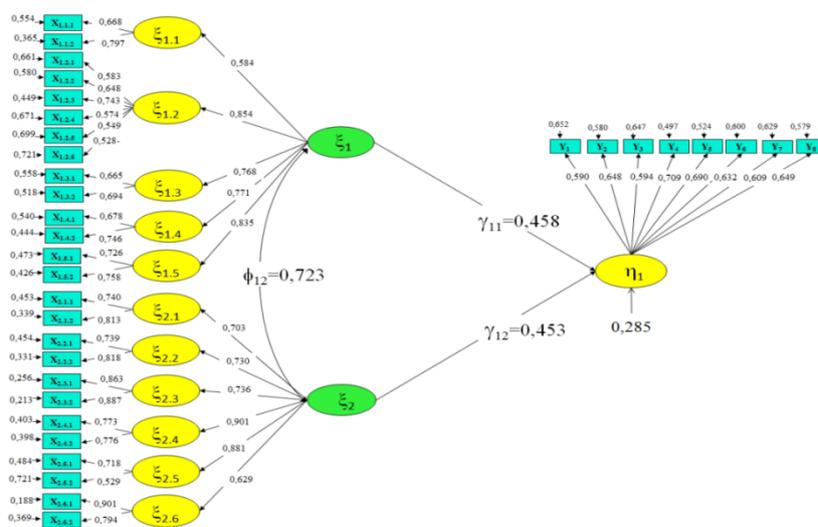


Figure 2: Structural Model of The Influence of Store Atmosphere and Merchandise to Customer Experience ( $\eta_1$ )

The results obtained can be seen that store atmospheric coefficient ( $\xi_1$ ) of the customer experience ( $\eta_1$ ) is 0.458 with the merchandise path coefficient ( $\xi_2$ ) of the customer experience ( $\eta_1$ ) is 0.453.

Table 6: Calculation Results of Structural Model of Store Atmosphere ( $\xi_1$ ) and Merchandise Influence ( $\xi_2$ ) on Customer Experience ( $\eta_1$ )

Laten Endogen Variable	Laten Eksogen Variable	Path Coefficient	R <sup>2</sup>	Error Variance
Customer experience ( $\eta_1$ )	Store atmosphere ( $\xi_1$ )	0,458	0,715	0,2841
	Merchandise ( $\xi_2$ )	0,453		

Source: Data Processing

To test the effect of hypothesized variables used t test with test criteria  $\alpha$  is 0.05, the value for the class limit of significant test is 1.96.

The effect of store atmosphere and merchandise on customer experience was 71.5% and the effect of store atmosphere on customer experience was greater than the effect of merchandise on customer experience. The influence of factors outside the store atmosphere and merchandise is 28.5%.

Table 7: Summary of Results of Store Atmosphere and Merchandise Effects to customer experience

Variable	Effect(%)				
	Formula	Direct	Indirect	Explanation	Total
Store Atmosphere ( $\xi_1$ )	$\gamma_{\eta\xi_1}^2$	21,0%			36,0%
	$\gamma_{\eta\xi_1} \times \phi_{\xi_1\xi_2} \times \gamma_{\eta\xi_2}$		15,0%	Through $\xi_2$	
Merchandise ( $\xi_2$ )	$\gamma_{\eta\xi_2}^2$	20,5%			35,5%
	$\gamma_{\eta\xi_2} \times \phi_{\xi_1\xi_2} \times \gamma_{\eta\xi_1}$		15,0	Through $\xi_1$	
Simultaneous influence $\xi_1$ and $\xi_2$ on $\eta$				$R_{Y_1, X_1 X_2}^2$	71,5%
external variable toward $\eta_1$				$\zeta$	28,5%

Source: Result of Lisrel 8.8 processed

To determine the effect of store atmosphere and merchandise simultaneously on customer experience, then hypothesis testing is performed by looking at the F count value (Test F). The statistical hypothesis as follows:

H<sub>0</sub> :  $\gamma_{i1} = 0$  The atmosphere of the store and merchandise does not affect simultaneously the Customer' experience

H<sub>a</sub> :  $\gamma_{i1} \neq 0$  The atmosphere of the store and merchandise affect simultaneously the customer' experience

To test this effect simultaneously used the F-test with  $\alpha$  of the test criteria is 0.5 at the critical limit which is stated significant if F<sub>count</sub> is greater than F<sub>table</sub> of 2,294 (db1 = 2 and db2 = nk - 1 = 280 - 2 - 1 = 277) = 3,028.

The F test statistic value is obtained from the following calculation:

$$F = \frac{(n-k-1) \times R^2_{YX_1X_2}}{k \times (1-R^2_{YX_1X_2})} = \frac{(280-2-1) \times 0,715}{2 \times (1-0,715)} = 347,4649$$

The results of the calculation of the significance test can be seen in Table 6 below:

**Table 8**  
**Testing of Path Coefficients in Simultaneous X-Y**

Hipotesis	R <sup>2</sup>	F <sub>count</sub>	F <sub>table</sub>	Decision	Conclusion
$\gamma_i = 0$	0,715	347,4649	3,028	H <sub>0</sub> rejected	Significant

Source: Result of Lisrel 8.8 processed

The calculated F-value was 347,4649. The results of the calculation of the F test statistic obtained showed that F<sub>count</sub> was greater than the F<sub>table</sub> value (F = 347.4649 > 3.028), so the H<sub>0</sub> test results were rejected and H<sub>a</sub> was accepted. The results can be concluded that the store atmosphere and merchandise simultaneously affect the customer experience.

Based on the results of testing the hypothesis, it appears that simultaneously store atmosphere and merchandise have a large influence on customer experience. This means that the department store is able to offer a comfortable store atmosphere accompanied by complete merchandise that will have a major impact on customer experience.

## Discussion and Conclusions

### Discussion

1. Department store managers in Bandung should pay more attention to the outside of the store (Storefront), with a unique and attractive storefront; a store can be interesting to visit. The front of the store (nameplate, entrance, and building architecture) must reflect the uniqueness, stability, robustness or other things that match the store's image. Likewise the window displays (storefronts), department stores must also pay attention to the display window or storefront to identify a store, displaying items that reflect the uniqueness of the items offered from the department store, thus attracting customers to enter the store. In making the window display you must consider the size of the window, the number of items in length, the color, shape, frequency of replacement and the creativity of the department store manager.

Department stores in setting prices should pay more attention to price comparisons with other department stores, usually in pricing whether lower than other department stores, usually closely related to merchandise, location, and atmosphere and service factors. In pricing the department store also needs to pay attention to the customer's desire to pay a price that is commensurate with the value obtained (value of money). Likewise in providing guarantees for product quality, department stores can provide guarantees for the quality of products offered, to ensure high product quality standards, department store managers should be tighter (more accurate and frequent) in evaluating the product before placing it on shelves / displays. Department store managers should also pay more attention to guarantees for the purchase of damaged products, the general method used is to offer a replacement for damaged products (exchange for similar items), or repayment according to the purchase price. Product returns are given ± 7 days after purchase with proof of payment.

Department store managers should pay more attention to accessibility, to make it easier for customers to access products, department stores can provide websites, e-mails, toll-free phones that can be easily and quickly contacted and provide feedback. The department

store website must be made complete about the information needed by the customer, in a language that is easy to understand and interesting. Likewise with the fulfillment of the promise, the department store must provide accurate, consistent and reliable information or promotions to its customers. Information/promotions made by department stores will shape customer expectations, so information/promotions that are not in accordance with what is conveyed will cause customers to become disappointed and not trust in the department store.

2. The results of this study reinforce the research conducted by Terblanche (2009: 5-17) in boutiques or clothing stores. The results of this study suggest that store atmosphere has a greater influence on customer experience compared to merchandise, meaning that the store's atmosphere is key in attracting and impressing with the shopping experience in department stores rather than merchandise.

### **Conclusion**

Based on the results and discussion that have been described in the previous chapter, from the store atmosphere and merchandise analysis on customer experience in Bandung, it can be summarized as follows:

1. The department store manager in Bandung must pay more attention to the uniqueness of the department store's facade, the convenience of the department store window and the frequency of changes to the department store display.  
Department store managers in Bandung must pay more attention to price comparisons with other department stores, providing product quality assurance and providing guarantees for returning damaged products.  
Department store managers in Bandung pay more attention to customers to access products and compliance with promises by department stores.
2. A comfortable store atmosphere and complete merchandise can create a memorable customer experience. That is, the customer experience will be supported by a comfortable store atmosphere and complete merchandise.

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# The Effect of Website Quality and Perceived Usefulness on Bobotoh's Satisfaction after Purchasing Online Ticket in Each Home Match of Persib Bandung

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## Abstract

Persib Bandung is the pride team of West Java society, especially the Sundanese. In responding to the public restless caused by ticket scalping, PT Persib Bandung Bermartabat (PBB) has changed the ticket purchase system to an online system. Nonetheless, there are still complaints in its implementation. This study aims to know the influence of website quality and perceived usefulness of online ticketing system on the satisfaction of Bobotoh (football fans of Persib Bandung) after purchasing the online ticket. The methods used in this research are descriptive and verification method. The population of this research is Bobotoh who have ever purchased the online ticket and the samples taken are 200 respondents. The data analysis method used in this research is path analysis (PATH) using Statistical Package for the Social Science (SPSS) software.

**Keywords:** Website quality, perceived usefulness, e-satisfaction, *Bobotoh*, Indonesian Football Club, Persib Bandung

## Introduction

Persib Bandung is the pride team of Bandung and West Java citizen and one of the football clubs in Indonesia well-known for the highest number of fans compared to other clubs in the league. It can be seen from the official website of the League 1 where Persib ranked first in the number of fans. Persib Bandung is in the first position with the number of fans of 59,061 fans far more than other team participants, including the team in rank 2 i.e. Arema FC with 26,597 fans ([www.liga-indonesia.id](http://www.liga-indonesia.id)).

Aside from the large number, Bobotoh Persib are also the loyal supporters compared to other football fans ([www.pikiran-rakyat.com](http://www.pikiran-rakyat.com)). These facts indicate that there will be economic benefits earned, such as from the sales of merchandise, T-shirts, jersey, and ticket from each home match. Therefore, the management of Persib Bandung should provide good feedback to the Bobotoh for their loyalty and support to the team they adore. The utilization of the internet is expected to improve the bond between the management and the fans. This can be implemented in social media for promoting Persib activities and communicating with the supporters as well as selling the ticket online (e-ticketing). This is initiated by the complaints of Bobotoh as there is still ticket scalping in each match. The ticket scalpers sell the ticket way more expensive than the regular price.

The ticket price sold by the scalpers was a lot more expensive. This issue resulted in protest from the Bobotoh because they found it was difficult to get a ticket at an affordable price. From

this information, the management of Persib Bandung decided to use the online ticket system through the official website of Persib. The management allocated 70% of the tickets to be sold online, either for members or non-members. The rest were distributed to the communities such as Viking Persib Club, Bomber and other communities spread across almost all areas of West Java province. This new system was implemented when Persib had a match with Sriwijaya FC on Saturday (29 March 2017) at Gelora Bandung Lautan Api stadium ([www.persib.co.id](http://www.persib.co.id)). The online ticket can be paid through ATM BNI, Permata, Klik BCA, credit cards, and Alfamart. Everyone interested in buying the ticket should show his or her own ID card/driving license/student card. For convenience and for assuring the availability of the ticket, one ID card can only be used to purchase one ticket. This is both for the members and non-members. The payment proof should be shown in the stadium before the match begins.

To provide easiness in purchasing the ticket, the website for selling the ticket should be well designed. The layout is not only bluish reflecting Persib main color, but also should provide easiness to the buyers when they order the online ticket. According to Bolalob, the website of Persib is ranked 8<sup>th</sup> from all football club websites and awarded for its design, navigation, and integration with social media, e-commerce (online shop), ticket and membership card of the club. According to Football Tribe, Persib website is one of five best websites in League 1. This covers the news, matches, member registration and exclusive interview with the coach and players. The website of Persib also has a statistical feature which is tidy and interesting layout as well as innovation in selling an online ticket for facilitating the supporters such as in European top league. Through this online system, the supporters can buy the ticket with ease so they do not have to come to the ticket box and they will not need to contact any ticket scalper. Clearly, they do not have to queue and have more certainty. This is a lot safer compared to the conventional system. Besides, there is also discount program in the online system benefitting the supporters.

Nevertheless, there was a different response of Bobotoh who had dissatisfaction and showed complaints about the online ticketing system. This system is deemed insignificant in providing easiness in buying the ticket. We conducted a pre-survey on 30 Bobotoh who have ever bought online ticket to know their response to repurchase ticket in the online system. The following is the response to the pre-survey:

### Bobotoh's consideration to repurchase the online ticket



Figure 1: Pre-Survey Results  
 Source: Processed data

Figure 1 shows that there were 12 respondents who are willing to repurchase the online ticket at the website of Persib. Nonetheless, there were 18 respondents who were not willing to repurchase the ticket in an online system. This pre-survey result indicates that there is dissatisfaction with the new ticketing system. If there is no measure taken, this reluctance will trigger conflict because the demand for the offline system will increase again. This surely will hamper the shifting process to the online system. The dissatisfaction and complaints of the fans are also available in the media as follows:

1. Quoted from usabperning.com. It is found that the organizing committee of the match was not ready did not make enough dissemination regarding the online system. Another fact is that there are many protests of the Bobotoh because they often experienced an error with the online system due to the overcapacity, making them confuse when purchasing the ticket. It seems that only certain people can purchase the online ticket. Those who have email accounts, ATM and are adults who can only buy the ticket. So, who about kids? Are they ready for the online system? This issue is important to address.
2. Quoted from viva.co.cid. It is reported that the Bobotoh are unaware of the online ticketing system. As an example, this happened when Persib Bandung against Arema FC on Saturday, 15 April 2017. There were many supporters who had difficulty in understanding the online mechanism. The organizing committee claimed that they had provided 36,000 tickets and all of them were sold. But, there were still many Bobotoh complaining this online system. As an example, Rani (19 years old) stated that she had made the ticket payment, but she did not receive any email. Therefore, she could not exchange the payment proof with the ticket. Fortunately, she met the offline ticket officer who helped her. Her name was actually in the database already and recorded as the one who has paid.

It can be said that Persib Bandung has done something good in using the online ticketing system as it erases the ticket scalping practice. Besides, this practice has provided easiness to the fans. But, there are still complaints from the fans that might be resulted from their less understanding of the online mechanism. Referring to the problem outlined above, it is important to conduct research to know the factors which may hamper the Bobotoh in using the online system. Thus, we entitled this research “The Effect of Website Quality and Perceived Usefulness on Bobotoh’s Satisfaction after Purchasing Online Ticket in Each Home Match of Persib Bandung”..

## **Literature Review**

### **Effect of Website Quality on e-Satisfaction**

A website is a component that cannot be separated in the activity of internet based business or e-commerce because it is a medium that facilitates the meeting between potential customers and the seller in the virtual world. The absence of direct contact with the seller requires a website to encourage and provide ease during the shopping process so that the customer is able to get the products in accordance with expectation. The features of a website in online retail can be categorized into three stages of marketing; presales, online sales and after sales. Customer satisfaction can be achieved effectively through the use of the website and the quality of service on the website in all marketing stages described above (Hsiu-Fen Lin: 2007).

It is necessary to periodically measure the performance of the website. WebQual concept is a technique for measuring the quality of a website based on the needs and perceptions of users. This is done by referring to the three dimensions consisting of usability quality, information quality and service interaction quality (Barnes & Vidgen: 2003).

### **Effect of Perceived usefulness on e-Satisfaction**

Technology Acceptance Model (TAM) has been a model often used to make measurements related to the use of information technology adoption and acceptance of information systems (Dalbough, 2013). In Technology Acceptance Model (TAM), users tend to use a technology system if the system is easy to use and useful for him. Kim and Hyung (2014) asserted that the usefulness and ease of use significantly affect attitudes towards the use of information system. There are two key variables proposed, i.e. perceived usefulness and perceived ease of use.

Perceived usefulness can be defined as the extent to which a person/user/consumer believes that the use of a technology will improve his job performance (Davis in Susilo: 2017). Customer satisfaction is directly influenced by the perceived usefulness and intentions of the user to continue using it (Davis: 1989, Zao and Cao: 2012 in Mandasari and Giantari: 2017). The indicators of perceived usefulness used in this study are as follows : make job Easier, usefulness, increase productivity, and enhance effectiveness (Sukmo Banyu: 2018)

### Formulation of Hypotheses

Based on the findings above, we propose the hypothesis as follows:

Hypothesis 1:

- Website Quality affects Bobotoh's satisfaction when buying online tickets in any home match of Persib Bandung

Hypothesis 2:

- Perceived usefulness affects Bobotoh's satisfaction when buying online tickets in any home match of Persib Bandung

### Method

The methodology must be clearly stated and described in sufficient details This study uses a descriptive-verification analysis to conduct an examination the effect of website quality and perceived usefulness on Bobotoh satisfaction when buying online tickets in any home match of Persib Bandung. We also test the hypotheses. The population in this study is Bobotoh who have ever bought the online tickets through the official website of Persib. In determining the sample in this study, we used a non-probability sampling-purposive sampling. In determining the appropriate sample size, we refer to the theory put forward by Naresh K. Mahotra in his book Marketing Research (2007, P331) stating that the problem-solving research should use a sample of at least 200 respondents. The data analysis method used in this research is Path Analysis (PATH) employing the Statistical Package for the Social Science (SPSS) software (version 20.0) to examine the relationship between variables. The statistical tests used for testing each sub-variable are the t-test for partial effect and the F test for simultaneous effect.

### Discussion

The descriptive analysis can be used to enrich the discussion. From the data sets of respondents, we can know the condition of each indicator variable being studied. To make it easier to interpret the variables being studied, we used categorization in the average score of respondents based on the range of the maximum score and minimum score. According to Cooper & Schindler (2014), for ordinal data or interval/ratio data with an asymmetric distribution, the measures of central tendency can be done through the inter-quartile range. The first quartile equals to the 25<sup>th</sup> percentile, the second quartile (median) equals to the 50<sup>th</sup> percentile and the third quartile equal to the 75<sup>th</sup> percentile. In the questionnaire data using a scale of 1 to 5, the minimum value = 1 and the maximum value = 5, the first quartile (Q1) = 2, the second quartile (Q2) = 3 and the third quartile (Q3) = 4. So, the average score of respondents can be categorized

Table 1: Summary of Average Score of Respondents on Web Quality variable

No.	Dimensions	Mean Score	Criteria
1	Usability quality	4.10	Good
2	Information quality	3.65	Fair
3	Service interaction quality	3.79	Fair
	<b>Grand Mean</b>	<b>3.85</b>	<b>Fair</b>

Overall, the variable of Web quality for selling the online ticket is pretty good. Likewise, the information quality and service interaction quality are also good, and so the quality usability. Based on these data, it can also be interpreted that most Bobotoh believe that the website of Persib Bandung has a good quality as it is easy to understand and efficient. This is in line with the awards given to the website of Persib Bandung regarding its performance.

Table 2: Summary of Average Score of Respondents on Perceived Usefulness variable

No.	Dimensions	Mean Score	Criteria
1	Make Job Easier	4.16	High
2	Usefulness	3.93	Fair
3	Increase productivity	4.14	High
4	Enhance effectiveness	4.17	High
	<b>Grand Mean</b>	<b>4.10</b>	<b>High</b>

Perceived usefulness seeks to show how the perception and impression of Bobotoh on the benefit offering provided by the organizing committee when changing the conventional way of ticket purchase into the online system. Largely, the response Bobotoh is high. Likewise, the scores of *make job easier*, *increase productivity* and *enhance effectiveness* dimension are high. Only *usefulness* dimension has a relatively fair score. Bobotoh realize that the benefits of an online purchase system are better, such as the avoidance of high prices due to the scalping and they are able to monitor the availability of the tickets. So, it can be said the Bobotoh's awareness of the online ticketing system is considered good.

Table 3: Summary of Average Score of Respondents on e-satisfaction variable

No.	Dimensions	Mean Score	Criteria
1	Usefulness	3.66	Fair
2	Enjoyment	3.60	Fair
3	Past Experience	3.65	Fair
4	Decision	3.91	Fair
	<b>Grand Mean</b>	<b>3.71</b>	<b>Fair</b>

The E-satisfaction score of the online ticket is overall high enough for most of Bobotoh. Likewise, all dimensions included in the observation also have a high score. Another interesting finding from this data is that Bobotoh will still repurchase the ticket through online mechanisms even though the online procedure is considered fair. This is reasonable because of the high fanaticism and enthusiasm of Bobotoh to the club. Nevertheless, there are some aspects to be improved to provide satisfaction to all stakeholders.

### Hypothesis Testing

In accordance with the purpose of the research which is to examine the effect of web quality ( $X_1$ ) and perceived usefulness ( $X_2$ ) on e-satisfaction ( $Y$ ), we perform quantitative analysis using path analysis. Based on the results of data processing using Lisrel 8.7 program, *path analysis* results are as follows:

Table 4: Summary of the path analysis of web quality and perceived usefulness on e-satisfaction

Path	Coefficient	t <sub>statistic</sub> *	p-value	R-Square
X <sub>1</sub> → Y	0.411	6.440	<0.001	0.197
X <sub>2</sub> → Y	0.159	2.495	0.013	

\* t<sub>critical</sub> = 1.972

From the R-square value, it can be seen that the *web quality* (X<sub>1</sub>) and *perceived usefulness* (X<sub>2</sub>) simultaneously affect *e-satisfaction* (Y) of 19.7%. While the rest of the 80.3 % are influenced by other factors, not examined in this research. Visually, path diagram of *website quality* (X<sub>1</sub>) and *perceived usefulness* (X<sub>2</sub>) on *e-satisfaction* (Y) can be described as follows.

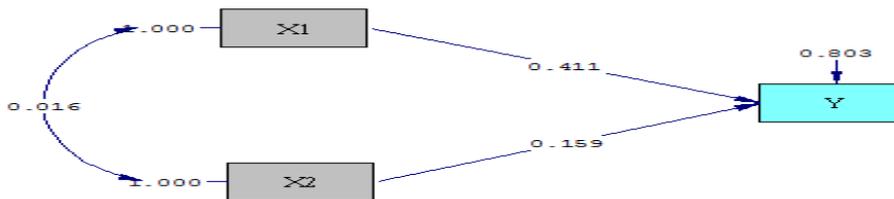


Figure 2: Path Diagram of website quality and perceived usefulness on e-satisfaction

Furthermore, to prove the effect of *website quality* and *perceived usefulness* on e-satisfaction, we test the hypothesis as follows:

**a). The effect of website quality on e-satisfaction**

H<sub>0</sub>:  $\gamma_{1.1} = 0$  Website quality does not affect e-satisfaction of Bobotoh

H<sub>a</sub>:  $\gamma_{1.1} \neq 0$  Website quality affects e-satisfaction of Bobotoh

From Table 5, it can be seen that the t-calculated value of the website quality variable is 6.440 with a probability value close to zero. Because the t<sub>statistic</sub> is greater than the t<sub>critical</sub> (1.972) with the error rate of 5%, we decided to reject H<sub>0</sub> and accept H<sub>a</sub>. It can be concluded that website quality affects the e-satisfaction of Bobotoh. The result of this study provides an empirical evidence that the better the web quality is, the higher the e-satisfaction will be.

**b). The effect of perceived usefulness on e-satisfaction**

H<sub>0</sub> :  $\gamma_{2.1} = 0$  Perceived usefulness does not affect e-satisfaction of Bobotoh

H<sub>a</sub> :  $\gamma_{2.1} \neq 0$  Perceived usefulness affects e-satisfaction of Bobotoh

From Table 5, it can be seen that the t-statistic of the perceived usefulness variable is 2.495 with a probability value of 0.013. Because the t<sub>statistic</sub> is greater than the t<sub>critical</sub> (1.972) with the error rate of 5%, we decided to reject H<sub>0</sub> and accept H<sub>a</sub>. Thus, it can be concluded that perceived usefulness affects e-satisfaction of Bobotoh. The result of this study provides an empirical evidence that the higher the perceived usefulness is, the higher the e-satisfaction will be.

**Conclusion**

In today’s digital world, any activity is made more efficient and convenient. This is also done by Persib Bandung in the aspect of ticket selling. They changed the system into online because they found the scalping practice resulting in the higher ticket price and Bobotoh’s difficulty to get the tickets for Persib Bandung match. This research aims to determine the effect of website quality and perceived usefulness on e-satisfaction. The results showed that website quality and perceived usefulness simultaneously affect e-satisfaction of 19.7%. While the rest of the 80.3 % are influenced by other factors, not examined in this study. If the measurement is done

partially, website quality affects e-satisfaction of 41.1% and perceived usefulness affects e-satisfaction of 15.9%.

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# The Financial Distress Indication on Mining Industry of Oil and Gas Sub-Sectors in Indonesia

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## Abstract

The purposes of this study is to find out whether there are indications of financial distress in companies in the mining sector in the oil and gas sub-sector in Indonesia in companies listed on the IDX. The variables used in this study are the current ratio (CR), a debt-equity ratio (DER) and Return on Assets (ROA). The sampling technique used in the study was purposive sampling with all samples taken from industries in the oil and gas sub-sector mining sector listed on the IDX. The companies that were sampled were 7 (seven) companies in the oil and gas sub-sector mining sector that have complete financial statements and are listed on the IDX in 2015-2017. Statistical analysis tools which used in the form of panel data regression analysis with EViews program. The results of the study conclude that the method used shows that the independent variable used is the current ratio (CR) has a significant relationship to the indication of financial distress. While the variables Return on Assets (ROA) and Debt-Equity to Ratio (DER) do not have a significant relationship in influencing financial distress. The contribution of independent variables to the model is 53.07% and the rest is influenced by variables outside the model that are not examined.

**Keywords:** Return On Assets, Current Ratio, Debt Equity Ratio, Financial Distress

## Introduction

Economic development is increasingly growing rapidly. This encourages all companies in various sectors. In the mining industry, the company continues to develop its business to adjust to economic development. This has caused competition among companies in various sectors to be increasingly tight. With this competition, the company requires various innovations and improves the company's financial performance and conditions.

Even though it has an important role for development, the condition of the oil and gas subsector mining industry is actually in poor condition. The decline in world oil prices in the last three years and the depletion of national oil and gas reserves are some of the causes. The oil production in Indonesia is only 831,000 barrels per day. This figure is far from the domestic demand which reached 1.6 million barrels per day. The use of oil and gas almost occurs in all sectors, some use oil and gas as raw materials (feedstock) and some use it as fuel. The use of oil and natural gas as raw materials usually occurs in the industrial sector while consumption of oil and natural gas as fuel occurs in almost all sectors, both industrial, service, community and government sectors.

Oil and gas conditions in Indonesia are in a bad condition and will have an impact on oil and gas companies in Indonesia where all oil and gas companies will compete in managing their companies to avoid financial distress. The existence of increasingly competitive competition

that occurs in the business world causes a positive impact on some companies can also have a negative impact on some companies. The negative impact can be in the form of loss or experiencing financial distress which ultimately causes the company to be unable to continue its corporate activities and experience bankruptcy. Every company must do an analysis about the company to predict the company will experience financial distress or not. According to the Plat and Plate defines financial distress As a stage of declining financial conditions that occur before bankruptcy or liquidation. Financial distress begins with the inability to fulfill their obligations, especially short-term obligations including liquidity obligations, and also includes liabilities in the solvency category.

According to Toto (2011: 332), bankruptcy is a condition where the company is no longer able to pay off its obligations. This condition usually does not just appear in the company. There are early indications of the company that can usually be identified more if the report reports are analyzed more carefully in a certain way. Financial ratios can be used as an indication of bankruptcy in the company.

There are results of previous research regarding Financial Distress but the results can be very diverse, according to Nanda Melodia Muska (2017) resulting in profitability, liquidity, and leverage having a significant effect on financial distress. While the results obtained differ from the research conducted by Orina Andre (2013) that profitability affects financial distress, liquidity does not affect financial distress and leverage has a significant effect on financial distress.

### **Literature Review**

Financial distress concept is a condition of a company that experiences liquid but still in solvency. The following is the definition of financial distress according to (Platt and Platt, 2002). "Financial Distress or often referred to as financial difficulties, occurs before a person actually goes bankrupt. Financial distress is a condition that indicates the stage of decline in financial firm condition that occurred before occurrence of bankruptcy or liquidity ". According to Hanafi (2007: 278), financial distress can be described as two extreme points, namely short-term liquidity difficulties to insolvency. Short-term financial difficulties are usually short-term, but can develop into severe. Indicators of financial difficulties can be seen from cash flow analysis, company strategy analysis and company financial statements. In this study financial distress will be measured using the Altman Z-score. This refers to several previous studies, including Altman, EI, Iwanicz-Drozdowska, M., Laitinen., EK, and Suvas, A. (2014) in the title Distressed Firm and Bankruptcy Prediction in International Context: A Review and Empirical Analysis of the Altman's Z-Score Model concludes It is obtained that internationally the Altman Z-score model can be applied to almost all countries with an accuracy rate of 75%.

Researchers chose the Altman model to measure financial distress and predict bankruptcy because the variables used are suitable indicators to measure financial distress and the Z-Score results can predict the bankruptcy of companies with more reliable accuracy and accuracy and have high accuracy.

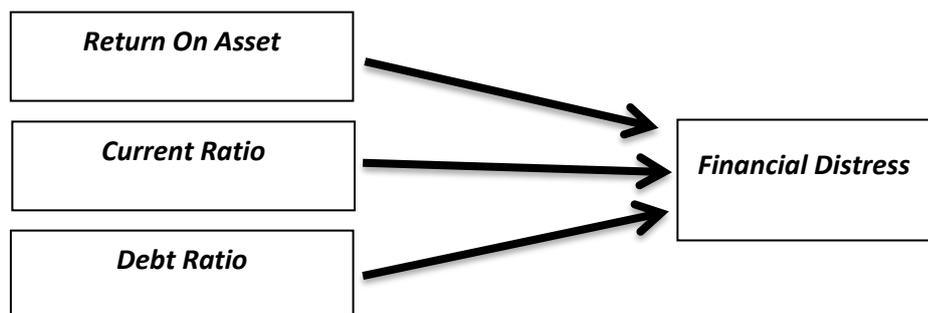
According to Sofyan Syafri Harahap (2008: 8) Altman Z-score is also known as the Altman Bankruptcy Prediction Model Z-score. The meaning is: this model provides a formula for assessing when a company will go bankrupt. By using the formulas that are filled with financial ratios, there will be certain numbers that are available to predict when the company is likely go bankrupt.

### **Theoretical Framework and Hypothesis Development**

The Z-Score model is a multivariate model of financial distress which has been developed in several countries. According to Hanafi (2003: 274-276): Bankruptcy models condition have been developed in several countries. Altman (1983, 1984) surveyed models developed in the United States, Japan, Germany, Switzerland, Brazil, Australia, England, Ireland, Canada, the Netherlands and France. One problem that can be discussed is whether there are similarities in financial ratios that can be used for bankruptcy prediction for all countries, or have specificities. John (2010: 241) states that the inability of a company to meet its current liabilities is an extreme liquidity problem, this problem can lead to the sale of investments and other assets that are forced, and even lead to insolvency and bankruptcy difficulties.

Lukman (2004: 44) states that there are no absolute provisions regarding how many levels of current ratio are considered good or that a company must maintain because it usually depends on the type of business run by the company, but the current ratio level of 2 is considered good. " Kasmir (2008: 157) Total debt to equity ratio (DER) is "The ratio used to assess debt with equity. This ratio is sought by comparing the entire debt, including current debt with all equity. This ratio is useful for knowing the amount and amount provided by the borrower (creditor) with the owner of the company. In other words, this ratio serves to find out every rupiah of its own capital that is used as collateral for the entire obligation or debt. "According to Keown (2008: 88) states that the indicator that can be used as a measure of corporate profitability is ROA (Return on Asset) which is a return on assets used to generate the company's net income. Return on Assets (ROA) shows the company's ability to generate profits from assets used. Return on Assets (ROA) is one ratio that measures the profitability of a company, and shows the efficiency of management in using all assets owned by a company to generate income. According to Widarjo (2009: 6) the ratio of high return on assets shows the efficiency of asset management, which means that the company is able to use assets owned to generate profits from sales and investments made by the company.

Based on the above framework, the research paradigm that can be made is as the following:



*H1: current ratio, debt equity ratio and return on assets have a significant effect on financial distress*

*H2: current ratio has a significant effect on financial distress*

*H3: debt equity ratio has a significant effect on financial distress*

*H4: return on assets has a significant effect on financial distress*

### Method

According to Sugiyono (2014: 41) the object of research is as follows: "The scientific goal is to get data with certain goals and uses about an objective, valid and reliable thing about a matter (certain variables)". The research unit in this study is:

1. Oil and gas sub-sector mining industry companies listed on the Indonesia Stock Exchange (IDX) in 2015 – 2017
2. Companies that publish their financial statements continuously during the research period

Table 1: Name of company in the oil and gas mining industry sub-sector

NO.	KODE	Name of Company
1.	ARTI	Ratu Prabu Energy Tbk.
2.	BIPI	Benakat Integra Tbk.
3.	ELSA	Elnusa Tbk.
4.	ENRG	Energi Mega Persada Tbk.
5.	ESSA	Surya Esa Perkasa Tbk.
6.	MEDC	Medco Energi Internatioal Tbk.
7.	RUIS	Radiant Utama Interinsco Tbk.

Sources : processed data

### Findings

From the results of the calculations that have been done, it is obtained the results that the equation

$$Y = 13.7024 + 0.4079 \text{ ROA} - 0.3984 \text{ DER} - 0.0298 \text{ CR}$$

Se	(2.6860)	(0.2139)	(0.8266)	(0.0091)
T	(5.1012)	(1.9070)	(-0.4820)	(-3.2517)

The model above is a model obtained from the results of the chow test. The calculation results show that compared to the Hausman test and the Lagrange test, the Chow Test is the most suitable model used in this study. Based on the results of research on companies in the oil and gas sub-sector mining industry listed on the Indonesia Stock Exchange (BEI) in 2015 - 2017, only the current ratio affects financial distress indications. Other variables such as return on assets and debt equity ratio do not affect financial distress indications in the industry.

### Discussion and Conclusion

Based on the existing model, the results show that in the oil and gas sub-sector mining industry, the current ratio affects the financial distress indication. Research tries to see whether return on assets and debt equity ratios affect financial distress indications. It turns out that the calculation shows that the variable does not affect financial distress indications, only the current ratio affects the financial indication of distress in the oil and gas sub-sector mining industry. Research shows that the variables used have a contribution of 53.07% to the model and the remaining 46.93% are influenced by variables outside the model that are not examined.

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# The Effect of Firm Value, Leverage, Profitability and Company Size on Tax Avoidance in Companies Listed on Index LQ45 Period 2012-2016

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## **Abstract**

This study determines the effect of firm value, leverage, profitability and company size on tax avoidance in companies listed on index LQ45 period 2012-2016. The Population is 45 companies, purposive sampling techniques used and number of sample is 19 companies. The analysis used is the classical assumption test, regression analysis, and hypothesis testing with simultaneous test (F test) and partial test (T test). The results showed that the independent variables simultaneously affect the tax avoidance of 78.10%. The results also showed that independent variables partially significant effect on tax avoidance. Suggestions can implicate are if the parties concerned the factors that influence tax avoidance, then the firm value factor, leverage, profitability and firm size should be considered; for further researchers to take other factors that affect and can research other sectors listed in Indonesia Stock Exchange. This study is useful for decision makers to be able to use tax avoidance rules.

**Keywords:** Tax Avoidance, Firm Value, Leverage, Profitability, Firm Size

## **Introduction**

Tax avoidance is one form of tax management that a company can legally do. According Suandy (2011) tax avoidance is an effort to make savings and tax minimization that can legally be done through tax management. By tax planning activity, a structured action for the tax burden is doing as low as possible by utilizing the existing rules to increase after-tax profits that will impact on increasing the value of the company. From the agency theory perspective, that through tax planning activities can facilitate managerial opportunities to take opportunistic action by manipulating the profit or placement of resources that are not appropriate and less transparent in running the company's operations so that tax planning has a negative impact on corporate value (Desai and Dharmapala in Lestari 2014).

Companies that practice tax avoidance are deemed to have reduced the information content contained in their financial statements which is the main cause of the decline in corporate value. For the company, the greater the tax to be paid means the less profit to be earned. This indicates the company's management behavior to maximize expected returns by reducing the tax burden.

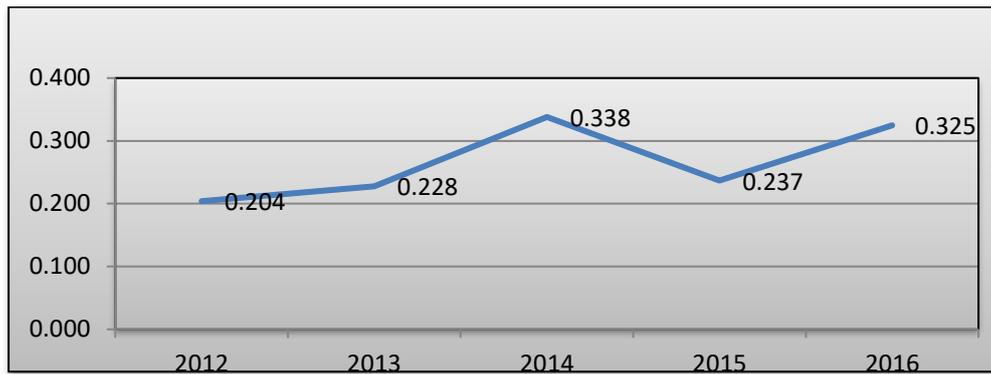


Figure 1: Tax Avoidance Growth

From the graphic above, the companies who do the tax avoidance are increase year by year, except on 2014 to 2015. The decreases of tax avoidance on 2014 to 2015 were assumed because the economic growth was slower in 2015 and it was the main causes of tax revenue target are not achieved.

Leverage is the level of debt that companies use in financing. Companies that use debt on the composition of financing, there will be interest expense to be paid. The higher the leverage ratio the higher the interest cost arising from the debt. The higher interest cost will influence the decrease of corporate tax burden. (Surya, 2016)

Profitability is a measure of a company's performance in streamlining the wealth of a company that is shown through profit. Profitability in net form is allocated for the welfare of shareholders in the form of paying dividends and retained earnings (Nuringsih, 2010). The high value of profitability can describe as efficiency made by the company, the higher the profit then the higher the tax cost to be paid by the company to the state. That is assumed the effort in doing tax avoidance or tax avoidance. The bigger the assets owned by the company, the larger the size of the company. The Company may manage the total assets of the company to reduce its taxable income by utilizing depreciation and amortization expense arising from expenditures to acquire the asset as depreciation and amortization expense can be used as a deduction of the taxable income of the company. (Teguh, 2015)

LQ 45 is one of the indexes in Indonesia Stock Exchange (BEI) with selection criteria such as the assessment of liquidity. Assessment of liquidity is the selection of those issuers also taking into account the capitalization of the market. The purpose of the LQ 45 index is to complement the JCI and in particular to provide an objective and reliable means for financial analysis, investment managers, investors and other capital market observers in monitoring the movement of prices from actively traded stocks. Companies that enter the index indicate if the capital market participants believe and also have admitted if the level of liquidity and market capitalization of the company is good.

Based on the background that has been described above, the researcher is interested to conduct research entitled "The Effect of Corporate Value, Leverage, Profitability and Company Size on Tax Avoidance in Companies Listed on Index LQ45 2012-2016 period".

The formulation of the problem based on the above background is (1) how the influence of corporate value, leverage, profitability and firm size against tax avoidance at companies listed in Index LQ45 period 2012-2016; (2) how the effect of corporate value on tax avoidance in companies listed in Index LQ45 period 2012-2016; (3) how the effect of leverage on tax avoidance on companies listed in Index LQ45 period 2012-2016; (4) how the effect of profitability on tax avoidance in companies listed in Index LQ45 period 2012-2016; (5) how the company measures against tax avoidance at companies listed in Index LQ45 period 2012-2016.

## **Literature Review**

### **1. Tax Avoidance**

According to Darussalam and Septriadi (2009), tax avoidance is a transaction scheme aimed at minimizing the tax burden by exploiting the loophole of a country's taxation provisions so that tax experts are legal because they do not violate tax regulations.

### **2. Company Value**

Company value can be measured by using stock prices using a ratio called rating ratio. According to Sudana (2011: 23), assessment ratio is a ratio associated with the assessment of the performance of shares of companies that have been traded in the stock market (go public). The rating ratio provides information on how much society appreciates the company, so that people are interested in buying shares at a higher price than their book value. Some methods used to measure the value of the company are PER (Price to Earnings Ratio), PBV (Price to Book Value) and TobinsQ. This research uses TobinsQ method to measure company value.

### **3. Leverage**

Leverage is the use of assets and sources of funds by companies with fixed costs (fixed expenses) with a view to increasing the potential return of shareholders (Sartono, 2008: 257). Leverage is a company's ability to use assets and / or funds that have fixed expenses (debt and / or privileged shares) in order to realize the company's goal to maximize the wealth of the company owner. This research uses DER (Debt to Equity Ratio) to measure company leverage.

### **4. Profitability**

Profitability ratios are used to determine the company's ability to generate profits or how effective management by management (Syahyunan, 2015). This research uses ROA (Return on Asset) to measure profitability of company.

### **5. Company Size**

Company size can be interpreted as the size of the company seen from the value of equity, company value, or the total value of assets of a company (Bambang Riyanto, 1995 in Kusumaningrum 2010). According to Sujianto (2001) in Kusumaningrum (2010), company size describes the size of a company indicated by total assets, total sales, average total asset sales, and average total assets.

The size of the company is seen from the total assets owned by the company that can be used for the company's operations. If the company has a large asset, the management is more flexible in using the existing assets in the company.

## **Theoretical Framework and Hypothesis Development**

Based on background and theory that have been put forward before, hence researcher make hypothesis as follows:

H1: Company Value, Leverage, Profitability and Company Size Effects Tax Avoidance in Listed Companies in LQ45 Index 2012-2016 periods.

H2: The value of the Company has an effect on the Avoidance of Tax on Companies Registered in the LQ45 index for the 2012-2016 periods.

H3: Leverage Effects Tax Avoidance on Companies Listed on LQ45 Index for the 2012-2016 periods.

H4: Profitability effects Tax Avoidance on Companies Listed in the LQ45 Index for the 2012-2016 periods.

H5: Company Size effects Tax Avoidance on Companies Listed in LQ45 Index for 2012-2016 periods.

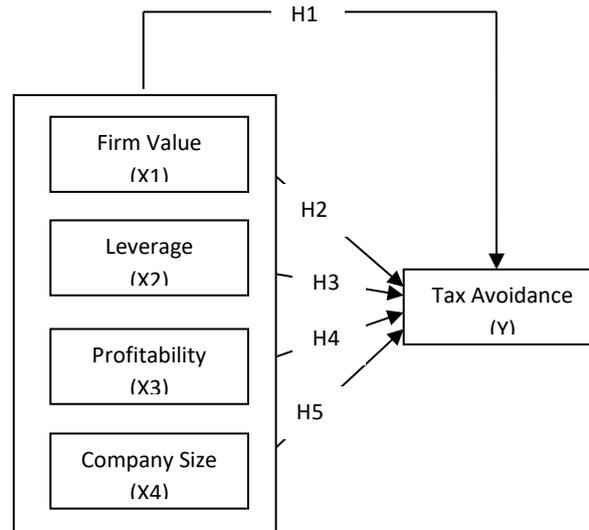


Figure 2: Theoretical Framework

This study was conducted to determine the effect of corporate value, leverage, profitability and firm size against tax avoidance. Objects used for this study are companies listed in the index LQ45 2012-2016 period.

## Method

### Population and Sample

In determining the sample of research, researcher use purposive sampling technique by using company criterion which consistently always listed in index LQ45 2012-2016 period, based on the criteria, then sample of this research there are 19 companies that is Astra Agro Lestari Tbk, AKR Corporindo Tbk, Astra International Tbk, Alam Sutera Realty Tbk, Bank Central Asia Tbk, Bank Rakyat Indonesia Tbk., Bank Mandiri Tbk, Charoen Pokphand Indonesia Tbk, Gudang Garam Tbk, Indofood CBP Sukses Makmur Tbk, Indofood Sukses Makmur Tbk Marga (Persero) Tbk, Lippo Karawaci Tbk, PP London Sumatra Indonesia Tbk, Perusahaan Gas Negara (Persero) Tbk, Cement Indonesia (Persero) Tbk, United Tractors Tbk, Unilever Indonesia Tbk.

### Analysis Method

To test the analysis used, conducted verification testing to calculate whether there is influence between firm value, leverage, profitability, firm size on tax avoidance. The analysis used is the classical assumption test, regression analysis, and hypothesis testing with simultaneous test (F test) and partial test (T test).

### Classical Assumption Test

This research uses linear regression to show whether in this regression model there is a normal distribution, multicoleniarity, autocorrelation and heteroscedacity.

The results of the classical assumption test show that the regression model of this study is normally distributed, there is no multicoleniarity, there is no autocorrelation and no heteroskedasiticity occur.

### Data Analysis of Model

Hypothesis test in this study is using SPSS test tool. Variable independent in this research is Firm Value (X1), Leverage (X2), Profitability (X3) and Firm Size (X4), while variable dependent in this research is Tax Avoidance (Y). The data analysis used is combination of cross section and time series (pooling data). The result of multiple regression equation is as follows:

$$Y = 250,201 + 1,219X1 - 1,728X2 + 0,379X3 + 0,279X4 + e$$

Description

Y : Tax Avoidance

a : Constanta

X1 : Firm Value

X2 : Leverage

X3 : Profitability

X4 : Firm Size

e : Disturbance term

### Findings

The results in this study are intended to explain the results of research based on the identification of problems and research objectives.

The results of the first hypothesis testing using F test showed Fstat of 21.198 while Ftable with 5% significance level obtained Ftable value of 2.47. In this case the Fcount (21,198) > Ftable (2.47), meaning that there is a significant influence between firm value variable X1, leverage (X2), profitability (X3) and firm size (X4) simultaneously ) to Tax Avoidance (Y) of 78.10%, while the remaining 21.90% is determined by other variables outside the model.

Result of testing of second hypothesis by using t test show that there is significant influence between firm value (X1) to tax avoidance (Y). It is seen in the test results, t-arithmetic / t-stat is equal to (2,391) > t-table (1,987). Then the meaning is the greater the value of the company, it will encourage increased tax avoidance, and vice versa the smaller the value of the company, it will reduce tax avoidance.

The result of the third hypothesis testing using t test shows that there is significant influence between leverage (X2) to tax avoidance (Y). It is seen in the result of t-hit / t-stat is (1,992) > t-table (1,987). Then the meaning is the greater the debt of the company, it will reduce tax avoidance. This is because the greater the company's debt, it will increase the interest payment obligations of the company, so it will reduce the profit before tax. If the pre-tax profit decreases, the company's tax payment obligation will decrease.

The result of the fourth hypothesis test using t test shows that there is a significant influence between profitability (X3) to tax avoidance (Y). This is seen in the result of t-arithmetic / t-stat is (-1,825) < t-table (1,987). So the meaning is the greater the profits of the company, it will encourage increased tax avoidance, and vice versa the smaller the company profits, it will reduce tax avoidance. This is because with the increase in corporate profits, the company's obligation to pay taxes will be greater, so it will encourage companies to avoid taxes.

The result of the fifth hypothesis testing using t test shows that there is significant influence between firm size (X1) to tax avoidance (Y). This is seen in the t-count value / t-stat is (2,684) > t-table (1,987). Then the meaning is the larger the size of the company, it will encourage increased tax avoidance, and vice versa the smaller the size of the company, it will reduce tax avoidance.

### Discussion and Conclusion

Based on the results of data testing and analysis that have been done, can be drawn conclusion as follows:

1. The regression model used in this study has passed the classical assumption test consisting of normality test, multicollinearity, autocorrelation test, and heteroskedity test so that it can be used to predict independent model.
2. The test results show that there is significant influence between firm value variable X1, leverage (X2), profitability (X3) and firm size (X4) simultaneously to tax avoidance (Y) of 78.10% , while the remaining 21.90% is determined by other variables outside the model.
3. The test results show that firm value positively effects tax avoidance on companies listed in the LQ45 index for the 2012-2016 period.
4. Test results show that leverage negatively effect tax avoidance on companies listed in the index LQ45 2012-2016 period.
5. Test results show that profitabilitiy positively effect tax avoidance on companies listed in the index LQ45 2012-2016 period.
6. The test results show that firm size has a positive effect on tax avoidance on companies listed in the index LQ45 2012-2016 period.

Based on the results of research that has been done, the suggestions that researchers can submit are as follows:

1. If the parties concerned want to know the factors that influence tax avoidance, then the firm value factor, leverage, profitability and firm size should be considered.
2. For further researchers to take other factors that affect tax avoidance in order to determine what factors effect tax avoidance.
3. For further researcher can do research in other sectors listed in Indonesia Stock Exchange.

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# Designing Human Resource Development Program of Political and Nation Unity Office (Kesbangpol) in West Bandung District

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## Abstract

**Purpose:** To obtain empirical evidence about "Designing Human Resource Development Program of Political and Nation Unity Office (Kesbangpol) in West Bandung District"

**Design/methodology/approach:** The method used is descriptive research with a qualitative approach.

**Findings:** The results showed that the constraints of the program development resource management at the Kesbangpol Office in West Bandung District is divided into internal and external factors.

**Research limitations/implications:** Only examine the Designing Human Resource Development Program.

**Practical implications:** The findings of the study showed that the implementation of the development program of human resource development in Kesbangpol, West Bandung District divided on resource development through formal education and training and development of personnel resources through the promotion of structural appointments.

**Originality/value:** There has been no research examining the Designing Human Resource Development Program of Political and Nation Unity Office (Kesbangpol) in West Bandung District.

**Keywords:** Human Resource Development, SWOT Analysis, Capacity Building, Human Resources Management, Management

## Introduction

Role apparatus / PNS is a key element of human resources have contributed to the state apparatus which determines the success of governance and development. For civil servants it is an absolute must have qualified human resources and professional in performing basic tasks and responsibilities to provide services to the community and avoid acts of corruption. Housekeeping practices bureaucracy HRM comprehensively to realize good governance by creating a government bureaucracy that is more effective and efficient to aspects of the organization / institution, human resources, procedures and regulations as well as improvements in aspects of monitoring and accountability to provide added value to the quality of service public.

The goal is to improve employee performance, productivity and service to the community civil servants, while the intended goal is to change the mindset and work culture (cultureset) and management systems of government. Thus Reforms is an attempt to organize, fix, enhance and improve bureaucracy to become more clean, efficient, effective and productive so that it can perform an optimal service to the public / society.

Political and Nation Unity Office (Kesbangpol) in West Bandung District, as stipulated in the local regulations No. 13 of 2007, that in the West Bandung District, has a fundamental duty to help the Regent in formulating and implementing policies in the field of national unity political and protection community.

1. West Bandung District implementation of the provisions above, the regent delegate some authority to the heads of departments, agencies, institutions in accordance with their duties and functions, including by law No. 32 of 2004 on local government, has been a paradigm shift in governance in the area. That act stressed granting very broad authority to local governments in order to improve the welfare of the community, to empower them, ensuring the process of democratization, the protection of rights and guarantees in life. The authorization is based on the demands of public accountability, the Government Social responsibility towards the community. Embodiment and a real commitment of public accountability is only shown in the form of government performance, the performance of institutions and government officials.
2. As a follow up on the aforementioned Political and Nation Unity Office (Kesbangpol) in West Bandung District, according to the Minister of the Interior Circular Letter No. 100/2985 / SI, dated October 30, 2002 that the principles of Autonomy and Development of National Unity is:
  - a) Must pay attention to fairness, equity and the potential and diversity of the regions based on the extensive autonomy, real and responsible.
  - b) The occurrence of political communication between the infra and supra political structures in the development of a more democratic political system.
  - c) Maintained and growing heterogeneity of society which is the potential to support the unity and integrity.
  - d) The development dynamics of community life democracy direction, respecting the rule of law, human rights and the creativity of the people in the life of the nation
3. West Bandung District in implementing autonomy remain conducive for living and growing pluralism that characterizes the community. It must always be maintained, developed and continuously nurtured and programmed. With regard seriously the dimensions of independence and autonomy of society, the participation and partnership between the government of West Bandung District and the community to support the efforts embodiment conditions of political life harmonious and dynamic as well as efforts to stabilize the stability of the region continue to be made. Political and Nation Unity Office (Kesbangpol) in West Bandung District as one of the organizations of West Bandung District anticipates developments in the steps leading to the creation of "Good Governance" to implement its three pillars, namely participation, transparency, and accountability.

## **Literature Review**

### ***Human Resource Management***

Sedarmayanti (2007, 13) says: "Human Resource Management are: Policy and Practice determine aspects of human. HRM positions including: recruiting, filter, train, reward and appraisal".

The goal of the human resources management itself is to ensure that the organization is able to achieve success through human resources. Human resource management system can be a source of organizational capability that allows a company or organization can learn and capitalize on new opportunities. Then it became the main task of human resources management for employees as efficient and as effective as possible in order to obtain a productive employee and can provide the maximum benefit for the company.

Specifically, Sedarmayanti (2007, 13) revealed that human resource management aims to:

1. Enables organizations acquire and retain competent employees, trustworthy and motivated as necessary.
2. Increase and improve the capacity inherent in the human contribution, ability and skill.
3. Develop a working system with high performance that includes recruitment and selection procedures are thorough, and incentive compensation system that depends on the performance, management development and training activities related business needs.
4. Develop management practices with a high commitment to realize that employees are stakeholders in the organization and establish valuable and helps develop the climate of cooperation and mutual trust.
5. Creating a climate where a productive and harmonious relationship can is maintained through the association between management and employees.
6. Develop environmental climate, where teamwork and flexibility can develop.
7. Help organizations balanced the needs of stakeholders (owners, agencies or government representatives, management, employees, customers, suppliers and the wider community)
8. Ensure that people are judged and rewarded based on what they do and achieve.
9. Manage employees vary, taking into account differences in individual and group placement needs, work style and aspirations.
10. Ensure that the similarity is available to all.
11. Adopt an ethical approach to employees based on the concern for employees, justice and transport.
12. Maintain and improve physical and mental wellbeing of employees

### ***Human Resource Development***

According to Mondy and Noe (2008:225) argues that: "The development of human resources is a continuing effort and planned undertaken by management to improve the skill levels of employees and organizational performance". While Awaloedin (2009:94) argues that: Human resource development in the broadest sense is the whole coaching process to improve the quality and standard of living of people from one country, while in the narrow sense of human resource development is the improvement of education and training or effort to increase knowledge and skills as a process without end, notably the development yourself. In addition, according Saydam (2006:63) argues understanding of human resource development are as follows: Development of employees (Human Resources), an activity that must be carried out by the organization, so that knowledge, abilities, and skills.

Based on the above description that human resource development should be done in an organized manner both vertically and horizontally by all the management functions of the organization coordinated by the manager of the human resources function. Besides, development of human resources must be done and sustainable, it is intended that human resource development should be done continuously and adapted to the environmental development organizations both external and internal environment of the organization

The general objective is the development of human resources to ensure that the organization has qualified people to achieve organizational goals to improve performance and growth (Armstong, 2007: 507).

This objective can be achieved by ensuring that everyone in the organization has the knowledge and expertise to achieve the level of skills needed to carry out their work effectively. In addition it should also be noted that in the development of human resources, the performance of the individual and the group are subject to continuous improvement and that the people in the

organization are developed in a manner appropriate to maximize the potential as well as their promotion.

### **Method**

The method used is descriptive research with a qualitative approach. Where in collecting data, researchers must find the facts in the field, analyze the data since researchers developing a proposal to acquire all of the data, further describes the various findings are netted in research instruments without testing the hypothesis. Sugiyono (2011) states that qualitative research is also called an artistic method, where research is more art (less patterned).

The study was conducted in the Political and Nation Unity Office (Kesbangpol) in West Bandung District, which is located in Bandung District Government Offices Complex West Highway 2 KM Padalarang-Cisarua subdistrict Ngamprah Mekarsari Village. The reason for chose West Bandung District, is because This is a new district which is a division of Bandung city, which would need to reform the fore ahead of the various aspects and superior infrastructure and human resources. Here the authors are interested in making a design of Human Resource Development Program.

Data collection techniques will be more directed at qualitative data collection techniques, data that can not be measured or judged by the numbers directly (Amrin 2000), Sugiyono (Lincoln, Guba : 2006), said that in this qualitative research, the researcher acts as the main instrument. Man as the data collection instruments provide an advantage, because it could be flexible and adaptive, and can use its overall sensory organs to understand something.

In line with these opinions, then that will be the main instrument is the researchers themselves who jumped into the field and gather information on their own. Data and information collection techniques in this study using observation, interviews and documentation, (literature and government policy).

### **Results and Discussion**

#### **Description of the Political and Nation Unity Office (Kesbangpol)**

##### *Establishment of the Political and Nation Unity Office (Kesbangpol)*

Political and Nation Unity Office (Kesbangpol) formed by the West Bandung District Regulation No. 3 of 2012 on the Organization of West Bandung District (Official Gazette of West Bandung District No. 3 of 2012 Series D), serves as a supporting element of Regents task and is responsible to the Regent through the Local Secretary in the form of administrative liability cover policy formulation, planning, implementation, monitoring, evaluation, and reporting of implementation of the tasks of the local technical institute.

##### *Main Tasks, Duties and Functions of Political and Nation Unity Office (Kesbangpol)*

Based on the decree of West Bandung No. 65 of 2012, on the Main Tasks, Functions and Duties details of Kesbangpol is to implement regional government affairs at the National Unity and Political Affairs.

In performing basic tasks of Kesbangpol in West Bandung District, performs functions as follows:

1. Formulation and technical policy in the field of Kesbangpol;
2. Implementation of government affairs and public services in the field of Kesbangpol.
3. Development and implementation of tasks in the field of Kesbangpol, and
4. Implementation of other tasks given by the Regent in accordance with its duties and functions.

**Vision and Mission West Bandung District**

Operational policies in West Bandung District can not be separated from the Vision of West Bandung District "*Creating Communities Intelligent, Rational, Forward, secular and Healthy Based On Development And Empowerment Potential Areas*" as defined in the Medium Term Development Plan (RPJMD) West Bandung regency Year 2013-2018. Elaboration of the vision, has formulated six (6) mission, namely:

1. Improve good governance through the quality of the bureaucracy in serving the community.
2. Improving the quality of service excellence in education and affordable healthcare for all levels of society.
3. Improving the independence and competitiveness of the local economy, for the optimization of employment and poverty reduction.
4. Strengthen the management of facilities and infrastructure, natural resources and the environment through sustainable development.
5. Increase the piety of social capital based on the value of religious and cultural wisdom.
6. Improving governance and empowerment of rural communities.

**The implementation of the Human Resource Development in Kesbangpol, West Bandung District**

Implementation of the development program of human resource development in Kesbangpol, West Bandung District divided on resource development through formal education and training and development of personnel resources through the promotion of structural appointments.

Various types of education and training conducted by Kesbangpol, West Bandung District, in terms of expert opinion as described above, has been implemented which focuses on the type of training (Training functional techniques) which includes:

- 1) exercise general management,
- 2) training of staff work (staff training) to train personnel of support staff, training personnel, finance and archives,
- 3) the exercise works the principal (client training) to train personnel working on basic tasks,
- 4) drills general orientation, for example train new employees who occupy positions of staff. Exercise office orientation for new employees who are appointed in a particular position,
- 5) Apprentience training for personnel vocational, technical and others and
- 6) intensive training, for administrative jobs and vocational training.

The findings of the study showed that the implementation of advanced formal education program in Kesbangpol, West Bandung District is not maximized and implemented with significant influence on employee performance. This condition is caused by the development model that is not based on a needs analysis and job analysis, is ineffective and inefficient.

Formal education programs continued this has a significant influence greater than the training and empowerment of employees, for the formal education to develop three aspects of intelligence, employee who is a basic competencies possessed by humans, these competencies are known as "3 H", namely: head , heart and hand.

Aspects of the "head" is related to cognitive existing in human beings are aspects relating to the reason (rationality) as intellect, expertise theoretical and conceptual understanding so that employees have a general knowledge, insight wider and has a power analysis more in the field of work at this time and to work in the future, while aspects of the "heart" is related to the affective domain is the ability that is in the employee to use the heart or feelings that gave birth

to the attitudes and morals apparatus as civil servants and public servants to serve the public interest (public service), which became the main task.

A further aspect "hand" is associated with psychomotor domain of the ability that is in the employee relating to specific technical skills possessed an employee, for example, typing skills quickly. Through formal education these three aspects of intelligence, which is the basic potential employees can be expanded up to produce qualified personnel that have the knowledge and insight, has a good personality as the state apparatus as well as skilled in their work which ultimately affect the performance of employees is increasingly good.

The SWOT analysis in this research examines aspects of the internal environment namely strengths and weaknesses, and also external environment, namely the opportunities and threats.

#### *Analysis of Internal Strength*

1. Commitment to Local Government to improve the quality of personnel
2. Facilities and infrastructure
3. Availability of human resources development budget
4. Availability of data base of the Civil Service in Kesbangpol, West Bandung District
5. The interest of employees to follow training

#### *Analysis of Internal Weakness*

1. The low quality of employees
2. Leadership
3. Assessment of performance and work performance of civil servants is difficult to measure
4. Lack of supervision
5. Lack of coordination between the establishment of the working unit
6. Lack of evaluation utilization training results

#### *Analysis of External Opportunity*

1. Commitment to the Central Government in the implementation of regional autonomy
2. Demands civil society in order to further improve professionalism
3. Parliament the accommodative
4. Technological Developments
5. Opening up an opportunity to become functional staff

#### *Analysis of External Threats*

1. Still the top level of government intervention
2. Non-availability of employment after retirement
3. Characteristics diverse community
4. The influence of external parties in the development of employees
5. Regulation of the frequently changing

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# Effect of Whistleblowing System and Effectiveness of Internal Audit on Good Governance Practices: Case study of BUMN Companies in Bandung Indonesia

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## Abstract

The Whistleblowing system is an internal control designed to receive, review and follow up on complaints submitted, whistle blowing systems that allow everyone to report suspected fraud, violations of law, ethics and company codes of conduct carried out by company employees. With an Internal Auditor whistleblowing system can conduct surveillance activities that are used as a reliable tool in detecting and preventing violations within the company and are a manifestation of the implementation of Good Cooperate Government (GCG) at the operational level. Whistleblowing systems provide guidance for Internal Auditors on how Internal Auditors prevent, detect and investigate fraud (Statement on Internal Auditing Standards No. 3). Hypothesis testing first tested the validity and reliability test. Data analysis uses path analysis. In general, the whistleblowing system influences internal audit effectiveness which is the realization of GCG implementation. The code of conduct, handling against alleged violations, and penalties for infringement of the code of conduct as well as the effectiveness of the internal audit in partial support and positive effect toward good governance practices.

**Keywords:** Whistleblowing System, Internal Audit Effectiveness, Good Cooperate Government

## Introduction

Whistle blowers are first used for government employees who submit complaints to the public (go public) about corruption or mismanagement in government agencies. At present the notion of whistle blowers has been widely used, whistle blowers are also used in relation to similar activities that occur in the private sector. Whistle blows often have to pay dearly for their disapproval of deviant actions. Watkin, Cooper, and Rowley convey their experiences that were relatively unscathed, but most of the whistle blowers were unlucky and were even fired from their jobs (quoted from <https://zehanwidiastuti.wordpress.com/01/05/2016>).

In order to improve the implementation and enforcement of good corporate governance, companies need to prevent fraud in the company, therefore a policy of implementing a violation reporting system (whistleblowing system) is required as part of the company's control. In

accordance with applicable ethical standards, any violations committed by employees must be reported to the company. Whistleblowing system is a violation reporting system that allows everyone to report suspected fraud, violations of law, ethics, and the company's code of ethics carried out by company employees. Through this system, the company can guarantee confidentiality of the identity and protect the reporter. A system that can be used as a medium for reporting information on irregularities indicated in an organization, regulated in a whistleblowers mechanism or known as a whistleblowing system (quoted from Mina Padi Investama, Member of Indonesia Stock Exchange).

The BUMN employees are committed to implementing the principles of good corporate governance, the Code of Conduct and the prevailing laws and regulations consistently and continuously. This commitment is expected to maintain the existence of the company in achieving the goals and objectives of the company. In line with this commitment, BUMN always fulfils the interests of stakeholders based on the principle of fairness and equality. In the application of GCG principles, reports of alleged violations from stakeholders often arise. Reports of alleged violations must be resolved properly so as not to harm the stakeholders themselves or the company. The mechanism for reporting on alleged violations is regulated in the Reporting System Guidelines Whistleblowing System.

### **Literature Review**

Whistleblowing system is a system and procedure designed to receive, review and follow up on complaints submitted, a violation reporting system that allows everyone to report suspected fraud, violations of law, and ethics and company codes of conduct conducted by company employees. Whistleblowing system in 2014 State-Owned Enterprises (BUMN) ([www.bumn.go.id](http://www.bumn.go.id)), are as follows:

1. Code of Conduct, the mechanism for reporting violations is:
  - 1) In the event of a violation of the Code of Conduct, the SOE person is obliged to report to: his / her direct superior or the whistleblowing system complaint box
  - 2) Reporting is carried out on the basis of good faith and not based on bad will or slander.
  - 3) In addition to internal parties, reporting of violations of the Code of Conduct can also be carried out by external parties of the company such as customers, business partners, and other stakeholders.
  - 4) The Reporting Entity is obliged to state his identity clearly in the reporting he is carrying along with the relevant supporting evidence on the alleged violation of the Code of Conduct
  - 5) The company will keep the identity of the reporter confidential in accordance with the applicable procedures.
  - 6) The company is obliged to follow up on reports that have the potential to cause material losses for the company and / or can damage the image of the company, in accordance with applicable procedures.
2. Handling of alleged violations of the Code of Conduct based on the 2014 BUMN Code of Conduct, carried out by officials who handle alleged violations:
  - 1) Complaints of violations allegedly committed by employees and top officials addressed to the Directors c. Q Section SPI as the Complaint Handling Unit.
  - 2) Complaints of violations allegedly committed by members of the Board of Directors addressed to the Board of Commissioners.
  - 3) The Company accepts any complaints of violations submitted by Company employees, stakeholders and / or stakeholder representatives in writing, equipped with an identity or not (anonymous reporter) and includes sufficient preliminary evidence.

- 4) The company in this case the SPI Section can provide an explanation of the policy and procedure for resolving violations when the employee, stakeholders and or representatives of stakeholders file a complaint of violation.
3. Sanctions for Violations The Code of Conduct is:
    - 1) Every employee who is proven to have committed a violation will be given sanctions in accordance with the applicable provisions in the company.
    - 2) Sanctions for employees who commit violations are determined by the Board of Directors.
    - 3) Sanctions for the Board of Commissioners, Directors and Supporting Organs of the Board of Commissioners who commit violations are determined by the Board of Commissioners.
    - 4) If the supplier, business partner or other stakeholders make a violation, it will be subject to provisions as stated in the relevant contract and company procedures, and if related to a criminal act can be forwarded to the authorities.
    - 5) Violation sanctions for employees who are proven to have committed a violation depend on their weight, namely light category, medium category violation, heavy category violation. The types of warnings given are verbal warnings, warning letters (I, II, and III) and termination of employment (ToE). The dismissal was carried out in accordance with the applicable labor regulations.

Mulyadi in Sugiman (2016) states that:

"Internal auditors are auditors who work in companies (state companies and private companies) whose main task is to determine whether the policies and procedures established by top management have been adhered to, determine whether or not the guardian of the organization's wealth determines the reliability of information produced by various parts of the organization". This definition can be seen in several scopes of duties of the Internal Auditor in the company which aims to assess the efficiency and effectiveness of business activities and also the internal controls that have been carried out.

Good Corporate Governance practices are expected to maximize the value of BUMN by increasing the principles of openness, accountability, trustworthiness, responsibility, and fairness so that the company has strong competitiveness, both nationally and internationally, this is in accordance with the Good Corporate Governance Implementation Objectives contained in the Letter The Order of the Minister of SOEs Number: PER - 01 / MBU / 2011, dated August 1, 2011 contained in article 2, namely: In the framework of GCG Implementation as referred to in paragraph (1) the directors compile manual GCG which includes manual board loading, manual risk management, system internal control, internal supervision system, reporting mechanism for alleged irregularities in the relevant BUMN, information technology governance, and code of conduct. Efforts to realize the practice of good governance is the existence of an internal audit function. Audits are activities carried out by parties who have independence and have professional competence to check whether the results of the company's performance are in accordance with the standards set.

### **Theoretical Framework and Hypothesis Development**

Internal audit has a very important role in achieving company goals. The more extensive the scope of the company, the wider the range of control carried by the company, so that management must create an effective internal control to achieve an optimal management by considering the benefits and costs. in a company is an assessment and verification of procedures, data recorded is based on company policies and plans, as one of the functions in monitoring its activities. Internal audit activities are the main support for achieving internal control objectives. When carrying out its activities, the internal audit must be objective and its

position in the company is independent. A system of blow-down systems is an internal control designed to receive, review and follow up on complaints submitted, a violation reporting system that allows anyone to report suspected fraud, violations of law, ethics and company code of conduct conducted by company employees.

In order to improve the implementation and enforcement of Good Governance Practices, a policy on the application of a violation reporting system (whistle blowing system) is required as part of the control of the Company in order to prevent any fraud in the Company. In accordance with applicable ethical standards, any violations committed by employees must be reported to the Company. By increasing the principles of openness, accountability, trustworthiness, responsibility, and fairness through the Whistle Blowing system, Good Governance Practices are expected to maximize the value of SOEs. As a manifestation of the Company's commitment to the implementation of good corporate governance, and in order to prevent and conduct early detection of violations that may occur in the company, the company considers it important to establish a Whistleblowing Guidelines.

Efforts to realize the practice of good governance is the existence of an internal audit function. Audit is an activity carried out by parties who have independence and has professional competence to check whether the results of the company's performance are in accordance with established standards. By increasing the principles of openness, accountability, trustworthiness, responsibility, and fairness through the role of internal audit, Good Practices Governance is expected to maximize the value of BUMN.

**Method**

The object studied in this study is Whistleblowing system, and the effectiveness of internal audit is a non-independent variable is an independent variable, while Good Governance practice is a dependent variable. The subjects of this study were 4 (four) Limited Liability Companies (PT) that is BUMN in the city of Bandung.

The research method used in the study is a survey approach with census taking and non-experimental. While the type of research conducted is explanatory research, because to explain the causal and correlational relationships between variables through hypothesis testing.

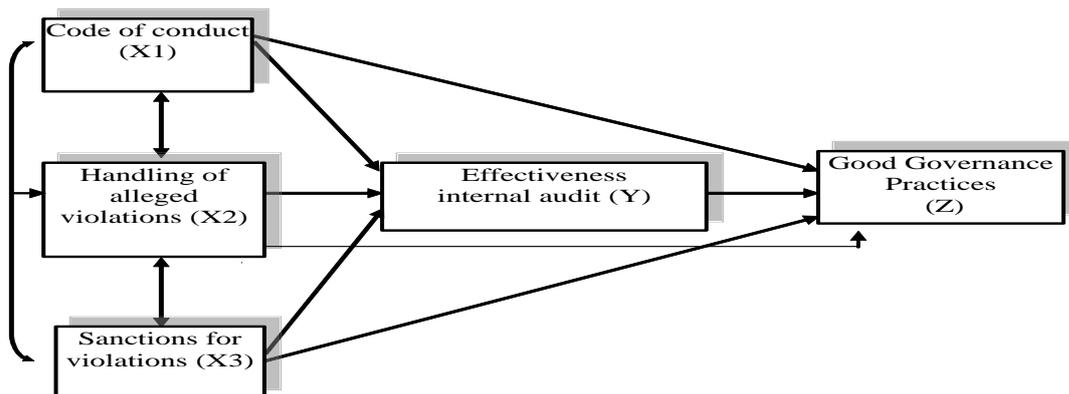


Figure 1: Theoretical Framework

**Findings**

The results of data collection were through questionnaires for each indicator of the Code of Conduct, Handling of alleged violations, sanctions for violations of codes of conduct, effectiveness of internal audits, and good governance practices, after asking questions to 161 respondents shows the cumulative answer scores of 99.11%, 94.60%, 99.09%, 100% and 7.25% respectively.

The relationship between the Code of Conduct and the effectiveness of internal audit shows a weak relationship. This means that the effectiveness of the internal audit has not fully supported the Code of Conduct, and the Code of Conduct is not fully an organizational commitment to the effectiveness of internal audits.

Relationship between Code of Conduct and Sanctions for violations of the Code of Conduct indicates a weak relationship. This means that the issuance of Sanctions for violations of the Code of Conduct has not been fully implemented as required in the Code of Conduct

The relationship between the handling of alleged violations with sanctions for violations of the Code of Conduct indicates a weak relationship. Handling of alleged violations is not fully supported by sanctions for violations of the Code.

Hypothesis test results strongly support the statement that the Code of Conduct, Handling of alleged violations, and Sanctions for violations of the Code of Conduct have a positive influence on the effectiveness of the internal audit are as follows:

1. The Code of Conduct has a positive influence on the effectiveness of internal audits. The influence of the Code of Conduct on internal audit effectiveness is 27.34%.
2. The handling of alleged violations has a positive influence on the effectiveness of the internal audit. The effect of handling of alleged violations of internal audit effectiveness is 30.62%.
3. The effectiveness of internal audits has a positive, influence on the effectiveness of internal audit so affect of Sanctions on violations of the Code of Conduct on the effectiveness of internal audits of 20.25%.

Influence of the Code of Conduct, Handling of alleged violations, and Sanctions for violations of the Code of Conduct as well as the effectiveness of internal audits on Partial Good Governance Practices are as follows:

1. The Code of Conduct has a positive influence on Good Governance Practices. The Influence of the Code of Conduct on Good Governance Practices is 10.68%.
2. Handling of alleged violations has a positive influence on Good Governance Practices so effect of Handling on alleged violations of Good Governance Practices by 15.61%.
3. The effect of internal audit has a positive influence on Good Governance Practices. The effect of sanctions on violations of the Code of Conduct for Good Governance Practices is 19.36%.
4. The effectiveness of internal audits has a positive influence on Good Governance Practices . The effect of internal audit effectiveness on good governance practices is 36%.

### **Discussion and Conclusion**

Based on the analysis and the results of the research that has been carried out, it can be concluded that the relationship between the code of conduct, handling of alleged violations, and sanctions for violations of the code of conduct, is:

1. The Code of Conduct supports and influences the effectiveness of internal audits
2. Handling of alleged violations supports and influences the effectiveness of internal audits
3. Sanctions for violations of the Code of Conduct support and influence the effectiveness of internal audits

Based on the analysis and the results of the research that has been carried out, it can be concluded that Code of Conduct, Handling of alleged violations and Sanctions for violations of Code of Conduct and internal audit effectiveness on Good Governance Practices, is:

1. The Code of Conduct supports and influences Good Governance Practices.
2. Handling of alleged violations supports and influences the practice of good governance.

3. Sanctions for violations of the Code of Conduct support and influence the Practice of Good Governance.
4. Implementation supports Good Governance Practices. This means that the Code of Conduct, Handling of alleged violations, and Sanctions for violations of the Code of Conduct, as well as the effectiveness of internal audits simultaneously support Good Governance Practices.

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# Innovation Strategy for Creative Industry of Indonesian Batik Trusmi Micro, Small & Medium Enterprise (MSME)

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## **Abstract**

Research on batik Trusmi conducted since 2012 tried to offer an alternative strategy that expected to develop the batik Trusmi MSME so that can winning competition in this era of globalization. Identification of the problem in this study is how the creative industry strategy of batik Trusmi MSME to deal with the ASEAN economic community. According to the identification of the problem, the purpose of this study is to analyze and find the creative industry strategy of batik Trusmi Cirebon to deal with the ASEAN economic community. The results showed that the innovation strategy of batik Trusmi MSME included raw material innovation strategy can reduced batik Trusmi MSME dependence on suppliers between 30% - 60% and the technology innovation strategy in the production process succeeded in reducing production costs to a range of 40% which had an impact on batik prices around 20%. With this condition, the batik Trusmi MSME is ready to face competition in the ASEAN economic community. The results of the study are expected to inspire batik Trusmi MSME to carry out innovation strategies to improve their competitiveness in ASEAN economic community.

**Keywords:** Batik Trusmi, Innovation, Strategy, Competitiveness

## **Introduction**

The enactment of the ASEAN Economic Community (AEC) in 2015 caused free trade traffic in the Southeast Asia region to be unimpeded. AEC is a form of agreement from ASEAN countries to form a free trade area in order to improve the regional economic competitiveness by making ASEAN as the world production base and creating a regional market for approximately 500 million of its population. Free trade can mean that there are no tariff barriers (import duties 0-5%) or non-tariff barriers for ASEAN member countries. In fact, AFTA was formed since the 4th ASEAN Summit in Singapore in 1992. However, by the end of 2015 ASEAN countries will have the impact.

The creative industry is one of Indonesia's foundations in facing the implementation of the ASEAN Economic Community (AEC) in 2015. Creative industry of batik Trusmi MSME in Cirebon district, West Java Province, strives to implement an innovation strategy to meet the AEC. This innovation strategy must indeed be run by batik Trusmi MSME, considering that the sales volume of batik Trusmi in the last 5 (five) years has decreased as shown in the following table:

Table 1: Data of Batik Trusmi Sales Volume 2010-2014

<b>Year</b>	<b>Sales Volume (unit)</b>	<b>Approximately (% )</b>
2010	427,208,345	-
2011	384,287,511	-10.05%
2012	338,449,009	-11.93%
2013	294,563,638	-12.97%
2014	250,883,638	-14.83%

Source: Department of Industry & Trade Cirebon District (Deperindag Kabupaten Cirebon), 2014

Based on the data in Table 1 above, which shows a decrease in sales volume of batik Trusmi Cirebon from year to year which continues to decline every year, 10.05% in 2010 to 2011 become decrease of 14.83% from 2013 to 2014, accordingly batik Trusmi's MSME players have to implement strategies that can increase competitiveness. This must be done considering the creative industries of batik including batik Trusmi today not only get challenges from Indonesian batik entrepreneurs but also from batik entrepreneurs from foreign such as China, Malaysia, Thailand, Vietnam, and several other countries.

There are several important factors to improve competitiveness. First, it is a difficult factor to imitate because it is based on knowledge which is an accumulation of experience (intangible assets) that must be managed by the company so that it can produce innovations that are difficult to replicate. The second factor is timing. This is what is often experienced by a number of companies. It could be too fast or too slow. The third important factor is innovation that is indeed mastered. Last but not least, the innovation must reflect market needs. (Tjiptono, 2008). Innovation remains a demand and very important. A variety of innovations ranging from products, processes and organizations, it can be seen how much the innovation effort contributes to revenue and the process. Especially the innovation must be directed to the organizational aspect (level of engagement). It must be deal with a low cost, so that the innovation must be focused on the efficiency and differentiation of the product, including the feasibility and better quality.

Innovation is defined as a breakthrough that deals with new products. Hurley and Hult (1998) define that innovation is a broader concept that addresses the application of new ideas, products, or processes. Innovation as a company mechanism to adapt in a dynamic environment, therefore companies are required to be able to create new thoughts, new ideas and offer innovative products and improve services that satisfy customers.

Pelham (2000) states that the term innovation is closely related to technology that functions to open up the company's insight about a new product or improve the design and manufacturing of a product (service) that the company already has. Innovation is a way to continually build and develop an organization that can be achieved through the introduction of new technologies, new applications in the form of products and services, the development of new markets and introducing new forms of organization that combine various aspects of innovation in turn forming an innovation area ( Hadjimanolis, 2000).

Wahyono (2002); Han, Kim and Srivastava (1998) put innovation as one of the important variables in determining performance. In addition, Han, Kim and Srivastava state that innovation is becoming increasingly important as a means of survival, not just growth in the face of environmental uncertainty and increasing business competition conditions. The study conducted by Hurley and Hult (1998) concluded that companies with high innovation ability

will be more successful in responding to their environment and developing new capabilities that lead to competitive advantage and superior performance.

Organizations or companies must participate in the competition arena and are required to be able to respond to any changes appropriately if they want to be able to survive and grow. Ahmed and Shepherd (2010) state innovation is always important as the fundamental for winning competition which cannot be undoubtedly an important factor for success. Moreover, creativity and innovation have their own influence to change the values, mindset and behavior that have previously been patterned which will further influence the performance of the organization's work in their daily lives. To create this new innovation requires the creativity of the organization or company itself (Lukas and Ferrell, 2008).

Based on the background described above, the problem was identified in this study "How is the creative industry strategy of batik Trusmi MSME to deal with the ASEAN economic community?." The aim of this study was to analyze and find the creative industry strategy of batik Trusmi MSME to deal with the ASEAN economic community. The benefits that can be provided by the results of the study are expected to inspire batik Trusmi MSME in carrying out an innovation strategy to improve its competitiveness especially to face the ASEAN economic community.

## **Literature Review**

### ***Innovation Ecosystems***

Firms in the modern era face complex competition networks. Most often innovators need to build a partnership network to succeed in providing the "package value" demanded by the market (Ahmed and Shepherd, 2010). Moore (1996) state that the dynamics of competition over time have been modelled by scholarly of population ecological thinking. Innovation ecosystems implies an analogy to natural ecosystems by adopting biological analogies. Taking as a reference point the way organisms adapt to their environment, perspectives show that successful organizations are also those who are able to evolve quickly with changes in their environment.

Innovation ecosystem is an interconnected network of organizations organized around a focus organization, which combines producers and users who create value through innovation (Autio and Thomas, 2013). Jackson (2011) defines an innovation ecosystem as "complex relationships that are formed between actors or entities whose functional goal is to enable technology development and innovation." For example: University Institutions. Consists of actors such as material resources (funds, equipment, facilities, etc.) and human capital (students, teaching staff, staff, industrial researchers, industry representatives, etc.). The systems approach recognizes the interaction between many actors and the determinants of other innovation processes that influence the development and dissemination of innovation.

According to Moore (1993,1996) business ecosystem can be explored through the approach of the actors involved in it that can described in the following Figure 1:

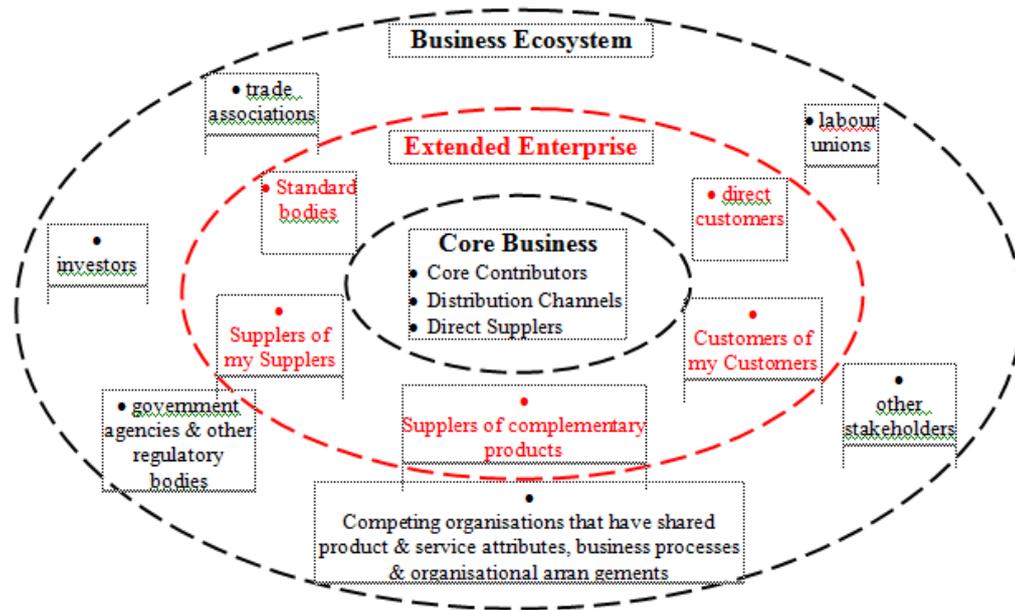


Figure 1: Business Ecosystem Actors  
 Source: Moore, 1993; 1996.

Framework for building ecosystem strategies consist of : (1) Companies must be better at competing in building new ecosystems, not just building better products. Companies should develop a way that changes the imagination of the network and business processes that are positioned to win; (2) A new business ecosystem exists to bring innovation to customers by delivering fully original outcomes or gives of new benefits available to customers that prove to be better than before; (3) Determining what is contained in the ecosystem scope is a strategic decision that is able to answer that should be included in the "end-to-end economic community;" (4) Competitive advantage in the new world comes from knowing when and how to build ecosystems, and from being able to direct them to lasting growth and sustainable improvement.

**Method**

This research is a descriptive study using a qualitative approach to produce a description and analyze how the creative industry strategy of batik Trusmi MSME deal with the ASEAN economic community. The data collected in this study through observation and document study (analysis of content).

**Findings**

The first step in this study is to analyze the current conditions faced by the batik industry in general and the batik Trusmi MSME in particular. This analysis is intended to find out the obstacles and challenges faced by batik Trusmi MSMEs to be able to improve their competitiveness. Once these constraints are known, then an innovation strategy is obtained which should be implemented by the batik Trusmi MSME in order to improve its competitiveness to face the ASEAN economic community.

The development of the batik industry's innovation strategy including batik Trusmi, especially in improving product competitiveness can be done through a strategy approach to optimize its potential by eliminating the various obstacles faced, through the business ecosystem approach of the batik industry. The batik industry business ecosystem can be explored through the

approach of the actors involved in it, using the Business Ecosystem Actors Model (Moore, 1996).

The development of partnerships between batik industry SMEs that are home industries as a characteristic of the majority of batik artisans in the Indonesian region, needs to be improved to become a large-scale batik industry that is built in a core contributor's partnership. This is very necessary in empowering the home batik industry and also efforts to bridge market penetration as well as the weaknesses of the majority of home-based batik industries in marketing their products.

In other words, through increasing the partnership of core contributors, the home batik industry will be able to optimize the use of various distributions channels such as malls, show rooms and exhibitions both at home and abroad, as well as any product produced, marketing strategies remain the key words in winning the competition. On the other hand, hard work seems to be continuously pursued to overcome the fulfillment of raw materials for home batik industries and guarantee their availability at affordable prices, the availability of batik equipment seems to be still a matter of priority.

Considering that of the 19 batik centers in Indonesia, there were only 6 canting-making businesses, 31 batik stamp-making businesses and 10 night-making businesses. Java Island is 15,293 units (Kompas, October 2013). The guarantee of meeting the needs of batik raw materials by direct suppliers is indispensable, given the need for batik raw materials such as *canting*, *malam*, natural dyes for meeting the needs of home batik industry will continue to increase not only in Java Island, but will spread outside Java.

This happened as a result of the increasingly widespread development of local batik in various regions outside Java, following the trend and prospects of batik development, after the incessant efforts made by the Indonesian government in making batik as a driver of the people's economy.

The following challenges faced in the development of the batik industry are the regeneration of Human Resources (HR), the generation of batik is generally relatively old. So it needs special efforts to arouse the interest of young generation to enter the batik business.

In terms of technology, batik industry entrepreneurs generally have not made improvements to production systems and techniques to be more productive and the quality can be the same for every piece of batik cloth. That does not include the use of natural dyes that still have not obtained stable results from each other.

In terms of the availability of silk raw materials, the amount is still less than market demand. In addition, fiber and silk thread are generally still imported. From the marketing side, it is a challenge from competing countries that are increasingly widespread such as China's imported batik attacks which control 30% of the domestic market share.

Regarding the issue of Intellectual Property Rights (IPR), it is suspected that traditional batik motifs have recently been copied by craftsmen from other countries. These conditions require an increase in IPR protection against Indonesian batik products.

## **Discussion and Conclusion**

### ***Discussion***

The innovation strategy that is intended to increase the competitiveness of batik Trusmi MSME, starting from the current conditions faced by batik Trusmi MSME is the dependence of MSME on supplies especially for *canting*, *malam* and coloring materials. In addition, the production process is still wasteful of energy, making it difficult for MSME to reduce the price of its products.

Therefore the batik Trusmi MSME innovation strategy consists of 2 (two) innovation strategies, namely (a) raw material innovation strategy; and (b) process technology innovation strategy, both of which are described as follows:

a. Raw Material Innovation Strategy

This strategy includes an innovation strategy for the procurement of raw materials consisting of *canting*, *malam* and coloring materials. For the procurement of *canting*, batik Trusmi MSME has sent its members to practice making *canting* since 2012 to the centers of *canting*. The result is that MSME is no longer completely dependent on *canting* suppliers because 60% of *canting* needs can already be made/provided by members of their own. Likewise with the raw material for the *malam*, which can already be made from the honeycomb by batik Trusmi MSME so that it can reduce *malam* dependence on the suppliers by up to 30%.

Furthermore, the innovation of the development of batik Trusmi production using natural dyes is driven by a number of disadvantages of synthetic dyes. First, synthetic color waste endangers human health. When craftsmen or batik companies dispose of any waste of synthetic color, indirectly poison the environment, including humans. Second, batik artisans do not realize, do not know, or know but ignorance of the dangers caused by synthetic color materials. Third, on the other hand there are many uses of synthetic colors for textile dyes used to color food or beverage ingredients. This happens because textile color material is much cheaper when compared to food coloring ingredients. By seeing the negative side of synthetic colors invites batik Trusmi's desire to innovate using natural colors in the surrounding environment.

In addition to innovating by utilizing natural colors in the surrounding environment, batik Trusmi MSME hopes to raise the interest of prospective customers to buy it. Clarity of reason for the dangers of synthetic colors is also a strong motivation to innovate with natural dyes. Back to nature cannot be separated as a reason for batik Trusmi's MSME to innovate its products. With guidance from the Clean Batik Innovative (CBI) regarding the use of natural dyes delivered by recognized experts, the batik Trusmi MSME is increasingly established to use natural colors taken from the surrounding environment. CBI itself hopes to remove the myth that is widely spread that natural dyes are difficult to make and have limited colors.

The trend of customers tends to return to nature has encouraged batik Trusmi's MSME to innovate to develop new products with natural dyes. To answer these customer trends and to minimize the problem of waste from synthetic dyes, they has innovated using natural dyes such as mango leaves, mahogany skin, tobacco, indigo bark, and *jengkol* skin. However, it is recognized that the price for batik with natural dyes is more expensive than batik using synthetic coloring ingredients. This is the challenge for MSME how they can produce batik that is environmentally friendly in a sustainable manner.

b. Process Technology Innovation Strategy

In the case of MSME, small initial changes can pave the way for major changes that are more impactful and require more funds. Large changes like this will not be ready for MSME, unless they believe this investment will be very beneficial for them. But the limited capital, location, time, and information about effective technology can delay the implementation of this development.

Almost all the technological innovations developed by this program relate to energy savings. This technology is very much needed, given the rapid increase in energy prices, especially fuel, which affects the cost of batik production. There are several technological innovations that have been carried out by batik Trusmi MSME since 2011:

1) Electric Stove

The most widely used innovation technology is electric stoves. This stove converts electrical energy into the heat needed to melt the wax used in the production process. This method is very useful, because electricity costs tend to be cheaper than fuels such as kerosene, diesel and gas.

By using electricity to replace other fuels, energy consumption costs associated with batik production can be reduced by 90%. In addition to providing economic benefits, the use of electric stoves also greatly reduces air pollution caused by burning firewood and oil in the production center.

2) Blower for *Pelorodan* Furnace

The biggest fuel costs in batik production are related to the *pelorodan* process (the process of decaying wax from colored fabric). During this process, the cloth is cooked in a large pan heated by a wood-burning stove. This method is very inefficient in energy use and produces very much smoke.

The addition of a blower provides additional oxygen to the wood being burned, and causes wood to burn at higher temperatures, and increase efficiency, and is more perfect because it reduces the amount of smoke generated. With adequate water content, combustion efficiency can be increased up to 50%.

3) Ceramic Stoves

Not all *pelorodan* stoves use firewood. In certain regions, gas can be a more affordable fuel. To improve the efficiency of *pelorodan* and gas fuel, batik Trusmi MSME imitates the technology that has been implemented in Pekalongan City, which is using ceramic stoves. One of the disadvantages of *pelorodan* pans is because of the high heat used, the pan becomes very porous. When the ceramic plate is placed on a gas fire, the ceramic will heat up to 700 ° C. This very hot ceramic plate not only lasts, but also heats more evenly and saves approximately 30% of the cost of the *pelorodan* process.

4) Solar Lights

Due to poor lighting and air circulation, most Batik Trusmi Cirebon MSMEs are forced to use electric lighting throughout the day. One alternative that is commonly used is to install a glass plate in the ceiling to enter sunlight. But this method is not very effective, because it depends entirely on the position of the sun.

5) Removal of Wax on the Remaining *Pelorodan* Water

Candles are another material in the production process that has high economic value. Almost all batik craftsmen have tried to lift candles during the *pelorodan* process with varying degrees of success. Usually the wax is filtered on the surface of the liquid after boiling. But this process only lifts about 50-70% of the wax used at first. By using this technique, the number of candles that can be collected can increase up to 10%.

At present, batik Trusmi Cirebon MSME is innovating technology in its production process. In the observations of researchers, the technological innovations that have been carried out by MSME can be summarized in the following table:

Table 2: Production Process Improvement

Proposed Improvements	Improvements
Fuel conversion	Replacing the use of kerosene fuel in the process of batik production both chemical and natural dyes with 3 kg LPG gas.
Simple filter making	Filter the night from <i>pelorodan</i> waste to be reused and reduce environmental pollution.
Making liquid waste disposal lines.	Reducing environmental pollution by making special lines for liquid waste disposal.
Making a chimney	Making a chimney to drain wood burning smoke into a higher open air in order to reduce the negative impact on workers' health.

Source: Researcher's Observation on batik Trusmi MSME.

By carrying out the innovation strategy outlined above, batik Trusmi MSME managed to reduce production costs by around 40-50% so that the batik's price could also be reduced by around 20-30%.

### **Conclusion**

The innovation strategy carried out by batik Trusmi MSME includes raw material innovation strategies and process technology innovation strategies. Raw material innovation strategies reduce the dependence of MSME on suppliers down by 30% - 60%. The process technology innovation strategy succeeded in reducing production costs by 40-50% which resulted in a decline in batik prices by around 20-30%. With this condition, the batik Trusmi MSME is ready to face competition in the ASEAN economic community.

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# The Impact of Credit, Liquidity, Operational and Market Risks on Return on Asset

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## Abstract

**Purpose:** This paper looking for risk which has significantly affect to decrease return on asset.

**Design/methodology/approach:** Credit risk is represented by nonperforming loan (NPL), market risk is represented by fair value (FV), liquidity risk is represented by loan deposit ratio (LDR) and operational risk is represented by operation cost to operation revenue (BOPO) and return on asset (ROA).

**Findings:** The risk profile that studied are credit risk, market risk, liquidity risk and operational risk in conventional bank of 2014 – 2016. Credit risk and operational risk have significant impact to return on asset. Liquidity risk and market risk have no significant impact to return on asset.

**Research limitations/implications:** Bank conventional with period data 2014-2016 monthly data

**Practical implications:** Banking institution should make a good financial performance to maintain customer's trust. Banking should focus in credit risk and market risk. .

**Originality/value:** Using multiple regression analysis and statistic test that is t test and F test, it is found that credit risk and operational risk have significant effect to ROA and market risk and liquidity risk have no significant effect on ROA for conventional bank in Indonesia in 2014 - 2016 (monthly data)

**Keywords:** Credit Risk, Market Risk, Liquidity Risk, Operational Risk, Return on Asset, Conventional Banks

## Introduction

The issues of the banking rush that circulated some time ago through social media could potentially disrupt the stability of the banking system. ([www.kompasiana.com](http://www.kompasiana.com)). Bank's rush can make banks colaps because bank's customers don't trust the bank anymore. And banks became useless. Banking function are mediator between funding dan borrower, if one of the functions is hampered then the banking performance will decrease. Indonesia is the country which needs fund for develop economic. Thus, we see the performance of banking in return on asset (ROA) decline from 2012 to 2015, as we see in figure 1. In 2012, return on asset (ROA) was 3.11% and in 2015 was 2.32%. The persentase of return on asset (ROA) is above 1.5% which the minimum return on asset (ROA) from regulation of Bank Indonesia.

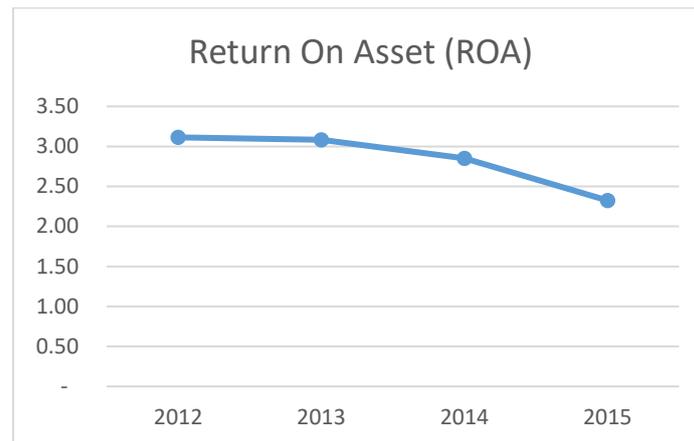


Figure 1: Return on Asset (ROA) Conventional Banks in Indonesia  
Source: [www.bi.go.id](http://www.bi.go.id)

Decreasing of return on asset (ROA) in conventional banking could impact on financial crisis if the decreasing wouldn't stop. (Mendonça JR, 2010). Bank Indonesia the regulator of banking in Indonesia wanted to make sure about the healthy of bank, then Bank Indonesia the central bank in Indonesia release an regulation number 13/1/PBI/2011 about rating of healthy banking using risk based approach. According to the regulation every bank should notice to risk profile, good corporate governance, valuability assessment, and capital adequacy. In this paper, we discuss about risk profile. Risk profile describe the risks which faced by banks. Risk profile including credit risk, liquidity risk, market risk, operational risk, reputation risk, legal risk, compliance risk and strategic risk. In this paper we discuss about credit risk, liquidity risk, market risk, and operational risk. Credit risk related to credit repayment to customers, liquidity risk associated with the inability of banks to meet their obligations and market risk related to traded securities and operational risk associated with operating costs. The purpose of this research is to know the impact of risk, especially credit risk, market risk, liquidity risk and operational risk to financial performance (return on asset).

### Literature Review

According to Bank Indonesia Regulation number 13/1 / PBI / 2011 about banking health, the bank should report the basic assessment of healthy bank. (Bankers Association 2016: 9). Factors of the healthy bank are:

- Risk profile including credit risk, market risk, liquidity risk, strategic risk, operational risk, compliance risk, legal risk, and reputation risk
- Good corporate governance including structure organization, process, and result
- Rentabilitas (earnings) including performance, sustainability
- Capital

In this research the factors used are risk profile factors consisting of credit risk, market risk, liquidity risk, and operational risk.

Credit risk is represented by Non performing loan (NPL). Market risk is the risk on balance sheet and administrative positions including derivative transactions caused by market prices, changes in the value of the traded asset. Market risk is represented by the composition of fair value traded securities (Fair Value / FV). Liquidity risk is the risk caused by the bank's inability to fulfill its obligations to other parties Liquidity risk is represented by Loan to deposit ratio (LDR). Operational risk is the risk caused by the internal inability of the bank in running its

business processes. Operational risk is represented by Operational Income Operating Expenses (BOPO).

These risks affected to the Return on Asset (ROA). Non performing loan (NPL) and operating revenue operating expenses (BOPO) are affected to Return on Asset (ROA). (Suwandi & Oetomo, 2017). Another opinion described there is a significant effect of loan deposit ratio (LDR), non performing loan (NPL), and Operational Income Operating Expenses (BOPO) on return on asset (ROA). (Yogianta, 2013). Fair Value (FV) composition of securities traded in fair value gives effect to bank regulations. (Bird & Ruchti, 2014). Fair Value (FV) is also required for future earnings. (Bhat et al., 2015). Return on asset (ROA) is a ratio to measure profits in the search for profit. (Lemiyana & Litriani, 2016). The greater the ROA the better the banking performance.

### Method

This research uses quantitative research method which aims to test an existing theory or hypothesis. This research method is called explanatory research. The research uses secondary data from conventional commercial banks operating in Indonesia from January 2014 to December 2016. These secondary data are in the form of monthly bank financial reports reported to Bank Indonesia and the Financial Services Authority. Data analysis in this study by using the application of statistical data processing SPSS is the analysis of classical assumption testing and multiple linear regression analysis.

The study involved several variables related to banking performance, return on asset (ROA), credit risk variables, non performing loan (NPL), market risk variables, fair value (FV), liquidity risk, loan deposit ratio (LDR), and operational risk, operating revenue operating expenses (BOPO) variables. Description of variables can be seen in table 1 below:

Table 1: Variabel Description

Variable	Indicator	Measurment	Scala
Credit risk (X <sub>1</sub> )	Non performing loan (NPL)	Persentase	Ratio
Market risk (X <sub>2</sub> )	Fair Value (FV)	Persentase	Ratio
Liquidity risk (X <sub>3</sub> )	Loan to Deposit Ratio (LDR)	Persentase	Ratio
Operational risk (X <sub>4</sub> )	Operational expenses to operational revenue (BOPO)	Persentase	Ratio
Financial performance (Y)	Return on Asset (ROA)	Persentase	Ratio

### Findings

Table 2 shows an average Return on Asset (ROA) is 2.5681%, average Non Performing Loan (NPL) risk is 2.59%, Fair Value (FV) market average is 7.78%, average risk liquidity of Loan to Deposit Ratio (LDR) is 89.84%, and the average operational risk of Operating Expenses to Operating Income (BOPO) is 80.19%, for the observation period from January 2014 to December 2016.

Table 2: Variabel Description

	Mean	Std. Deviation	N
ROA	2.5681	.27389	36
FV	7.7858	1.04765	36
LDR	89.8475	1.19795	36
NPL	2.5886	.38644	36
BOPO	80.1906	2.62790	36

Table 3: Analysis Result

Model	Unstandardized Coefficients		Stardardized coefficients Beta	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error				Zero-order	Partial	Part	Tolerance	VIF
(Constant)	5.870	1.971		2.978	0.006					
NPL	-0.398	0.069	-0.562	-	0.000	-	-0.721	-	0.624	1.602
FV	-0.013	0.022	-0.050	5.793	0.558	0.824	-0.106	0.444	0.829	1.207
LDR	0.019	0.018	0.081	-	0.318	0.163	0.179	-	0.912	1.097
BOPO	-0.048	0.011	-0.460	0.592	0.000	0.040	-0.632	0.045	0.573	1.745
				1.014			-	0.078		
				-			0.782	-		
				4.540				0.348		

- Dependent Variable:ROA

In table 3, we can see that fair value (FV) and loan deposit ratio (LDR) aren't significant result to return on asset (ROA) in  $\alpha = 5\%$ .

The result of analysis regression, that is formula between variables:

$$Y = 5.870 - 0.398X_1 - 0.013X_2 + 0.019 X_3 - 0.048 X_4 + e$$

(1)

Formula (1) explain that:

- Constanta = 5.870 means that if the non performing loan- NPL (X1), fair value - FV (X2), loan deposit ratio - LDR (X3), operationing revenue operating expenses - BOPO (X4) are zero, then the return on asset ROA (Y) increased 5.87%.
- The coefficient of regression non performing loan- NPL (X1) is - 0.398, that meant if non perfroming loan - NPL (X1) increased 1%, then return on asset - ROA (Y) will decrease 0.398%.
- The coefficient of regression fair value - FV (X2) is 0.013, but significant value 0.558, that meant fair value - FV (X2) did influence the return on asset - ROA (Y).
- The coefficient of regression loan deposit ratio LDR (X3) has 0.019, but significant value 0.318 which means there is no influence between LDR (X3) and ROA (Y).
- The coefficient of regression operating revenue operating expenses -BOPO (X4) is - 0.048 which means operating revenue operating expenses - BOPO (X4) increased 1% then return on asset - ROA (Y) will decrease 0.048%.

Table 4: Analysis Result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.904 <sup>a</sup>	.818	.794	.12419	1.396

a. Predictors: (Constant), BOPO, LDR, FV, NPL

b. Dependent Variable: ROA

According to table 4, R Square is 81.8%, the meaning of 81.8% the data closed to the mean of data. And 18.2% influenced by another data.

Table 5: Result of hipotysis – F test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.147	4	.537	34.806	.000 <sup>a</sup>
	Residual	.478	31	.015		
	Total	2.626	35			

a. Predictors: (Constant), BOPO, LDR, FV, NPL

b. Dependent Variable: ROA

The result of F test is 34.806 (table 5) higher than  $F_{table}$  (2.68), ( $F_{test}$  (34.806) >  $F_{tabel}$  (2.68)), it's mean  $H_0$  has not accepted and  $H_1$  has accepted, then NPL ( $X_1$ ), FV( $X_2$ ), LDR ( $X_3$ ), BOPO ( $X_4$ ) have affected to ROA (Y) in conventional banks in 2014-2016.

Table 6: T test

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	5.870	1.971		2.978	.006
	NPL	-.398	.069	-.562	-5.793	.000
	FV	-.013	.022	-.050	-.592	.558
	LDR	.019	.018	.081	1.014	.318
	BOPO	-.048	.011	-.460	-4.540	.000

- Effect of NPL on Return on Asset (ROA)  
The value of t-count (5.793) > t-table (1.688) then there is a significant negative influence between NPL ( $X_1$ ) on ROA (Y) at conventional commercial banks 2014-2016
- Influence of FV on Return on Asset (ROA)  
The value of t-count (0.592) < t-table (1.688) there is no significant negative influence between FV ( $X_2$ ) on ROA (Y) in conventional commercial banks 2014-2016
- The influence of LDR on Return on Asset (ROA)  
The value of t-count (1.014) < t-table (1.688) then there is no significant positive influence between LDR ( $X_3$ ) on ROA (Y) at conventional commercial bank 2014-2016

- Effect of BOPO on Return on Asset (ROA)

The value of t-count (4.7540) > t-table (1.688) then there is a significant negative influence between BOPO (X4) on ROA (Y) in conventional commercial banks 2014-2016.

### Discussion and Conclusion

The results of the research indicate that there is a negative effect of Non Performing Loan (NPL) on Return on Asset (ROA) significantly on conventional commercial banks in 2014 - 2016. There is no effect of the composition of securities traded in fair value (FV) against Return on Asset (ROA) at conventional commercial banks in 2014 -2016. There is no effect of the Loan to deposit ratio (LDR) on Return on Asset (ROA) in conventional commercial banks in 2014 -2016. And there is a negative influence Operational Income Operating Cost (BOPO) to Return on Asset (ROA) significantly on conventional commercial banks in 2014 -2016.

The risk profile that studied are credit risk, market risk, liquidity risk and operational risk in conventional bank of 2014 - 2016 (monthly data), it is found that credit risk is represented by Non Performing Loan (NPL) and operational risk is represented by Operational Cost of Revenue Operational (BOPO) has a significant negative effect on Return on Asset (ROA), while market risk is represented by the composition of securities traded in fair value (FV) and liquidity risk is represented by the Loan to deposit ratio (LDR) has no effect on Return on Asset (ROA).

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# **Influence of Non-Financial Information and Macroeconomic on the Level of Underpricing on Companies that Conduct IPO on the IDX in the 2011-2015 Period**

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## **Abstract**

Funding sources are the most important part in achieving company goals so that companies have alternative funding sources, can come from within the company or from outside the company. Some of these alternatives can be done by the company in order to get the capital, including being able to use their own capital, issuing bonds (bonds), debts to the bank, or by increasing the number of shares with the issuance of new shares. While companies that have not been listed on the Indonesia Stock Exchange and have the desire to go public, the company must make an initial public offering (IPO) in the primary market. The identification of the problem in this study is whether there is an influence between Underwriter Reputation variables and Auditor Reputation on Underpricing, whether there is an influence between Inflation level variables and interest rates on Underpricing, and whether there are influences between Underwriter Reputation variables, Auditor Reputation Inflation rate and rates interest in Underpricing. This study uses descriptive and verification methods using multiple regression analysis. The population in this study were companies listed on the Indonesia Stock Exchange that conducted IPOs in the period 2011-2015, namely as many as 121 temporary companies for sampling using purposive sampling method so that the research sample was 64 companies. The results of this study state that Underwriter Reputation Auditors and Reputations have a partial negative influence on Underpricing, while Inflation and Interest Rates have no partial influence on Underpricing and Non Financial Information variables (Auditor Reputation and Underwriter Reputation) and Macro Economy (Inflation Rate and Interest Rate) have a simultaneous effect on Underpricing. and able to influence the dependent variable Underpricing is 12.7%, while 87.3% is influenced by other variables not examined.

**Keywords:** Finance, Underpricing, IPO, Underwriter, Inflation

## **Introduction**

Funding sources are the most important part in achieving company goals so that companies have alternative funding sources, can come from within the company or from outside the company. Some of these alternatives can be done by the company in order to get the capital, including being able to use their own capital, issuing bonds (bonds), debts to the bank, or by increasing the

number of shares with the issuance of new shares. While companies that have not been listed on the Indonesia Stock Exchange and have the desire to go public, the company must make an initial public offering (IPO) in the primary market. Every company conducting an IPO must make a prospectus. Prospectus is any written information relating to a public offering with the aim that the other party buys the offered securities. In the Prospectus there is a lot of information relating to the state of the company that is making a public offering. Information in the prospectus can help investors in making rational decisions regarding the risk and value of shares offered by the company (Kim et al. 1993). The phenomenon that often occurs when a company conducts an IPO is underpricing, which means that the stock price in the primary market (at the time of the IPO) is lower than the closing price of the first day on the secondary market Hasanah and Akbar (2014: 2). The results of the research Dwi Martani et al (2012) about the influence of underwriter reputation, auditor reputation, company size, company age and return on equity (ROE) on underpricing which states only the size of the company shows a significant relationship in influencing underpricing of manufacturing companies in Indonesia. While the research of Meina Wulansari et al (2014) about the influence of Current Ratio, ROE, DER, EPS, variable size, stock offering, company age, underwriter reputation, and auditor reputation on underpricing which states only the underwriter reputation has a significant influence on underpricing. On the other hand, Gunasti Hudiwinarsih (2013) which examines the effect of Return on Equity, Debt to Equity Ratio, Inflation Rate, Reputation of KAP and Reputation of the guarantor for stock underpricing states the variable return on equity, reputation of KAP and reputation of the insurer has a significant impact on underpricing. Researchers are interested in researching financial information which consists of Current Ratio, Return On Equity (ROE) and Debt to Equity Ratio (DER), non-financial information consisting of Auditor's reputation and underwriter reputation, as well as macroeconomic namely inflation rate and interest rate to test the effect on underpricing on companies that conduct Initial Public Offering (IPO) in 2011-2015. The highest underpricing phenomenon in companies that IPO for the period 2011-2015 was in 2013, reaching 16 companies that experienced underpricing. With the many interests of companies that underpricing during the IPO during the period of 2011-2015 which was relatively high, it caused interest to investigate further about the factors that could influence the occurrence of underpricing. Actually underpricing conditions are detrimental to companies that go public, because the funds obtained from the public are not optimal. Conversely, if there is overpricing, then investors will lose, because they do not accept initial return Retnowati (2013: 183). If the company knows the factors that influence underpricing, it will avoid companies that will go public against losses due to underestimate of the market value of their shares.

Based on the foregoing, the authors are interested in conducting a research entitled: "The Influence of Non-Financial Information and Macroeconomics on the Level of Underpricing in companies that conduct IPO (Initial Public Offering) on the IDX in the 2011-2015 Period".

Thus the formulation of the problems proposed in this study are:

1. Is there an influence between Underwriter Reputation variables and Auditor Reputation on Underpricing?
2. Is there an influence between Inflation level variables and interest rates on Underpricing?
3. Are there any influences between Underwriter Reputation variables, Auditor Reputation Inflation rates and interest rates on Underpricing?

## **Literature Review**

### ***Auditor Reputation (KAP)***

Reputation The auditor functions to examine the financial statements of companies that will go public. The results of the auditor's testing are needed by the parties concerned for decision making. According to Fahmi (2012: 75) "The KAP statement is strongly influenced in terms of feasibility at the time of the financial statements and other audit results that can be stated in rules and procedural conditions to go public".

The theory related to this variable is the information asymmetry theory in which there is a difference in information between informed investors and uninformed investors. This is where the auditor is very important in his position when informed investors trust more highly reputable auditors. Therefore, high-quality auditors are expected to be more likely to detect and suppress earnings management practices, Becker 1998 in Rusmin et al (2013).

### ***Underwriter Reputation***

Underwriter reputation is the reputation of the party making the contract with the issuer to make a public offering for the benefit of the issuer with or without obligation to buy the remaining unsold securities. (Fahmi, 2012: 57) argues that "Underwriters are underwriters or securities for each issuer that issues shares in the capital market. Meanwhile, according to Darmadji and Fakhruddin (2012: 38) "Underwriters are securities companies that make contracts with the issuer to make a public offering for the interests of the issuer.

Based on some of the above it can be concluded that the task of an underwriter is to guarantee sales on securities and the entire payment of securities that are emitted to the company and represent other securities underwriters in relation to the company and third parties.

### ***Macro Economics***

According to Mohammad Samsul in Anggita Ratnasari (2013: 87) "Macroeconomic factors are factors that are outside the company, but have an influence on the increase or decrease in the performance of the company both directly and indirectly".

In theory, there are many indicators that can measure macro variables, but from a number of macro variables, variables that are directly controlled through monetary policy with the transmission mechanism through financial markets are interest rates, inflation rates, and foreign exchange rates. Changes in macroeconomic factors will not immediately affect company performance, but slowly in the long run. Conversely, stock prices will be affected immediately by changes in macroeconomic factors because investors react faster.

### ***Interest Rate***

Interest rates are a government or central bank policy that aims to maintain the sustainability of the country's economy. According to Astuti and Syahyunan (2013: 29) Interest rates are the percentage of interest rates set by Bank Indonesia. The determination of interest rates by Bank Indonesia aims to achieve monetary policy goals. Interest rates according to Mulkan Abdullah

(2015: 3) "Interest rates are one of the variables in the economy that are always closely watched because their broad impact directly affects people's lives on a daily basis and has an important impact on the health of the economy".

So it can be concluded that the interest rate is the price of borrowing money at a certain time period which is expressed in percentage form.

### ***Inflation***

Inflation is an increase in the price of goods in general or a decrease in the purchasing power of a currency. In the principles of investing inflation is one factor that is taken into account because of its association with the time value of money.

Murni (2013: 202) states that "Inflation is an event that shows a general increase in price levels and continues."

Based on the above it can be concluded that inflation is a condition when the general level of prices increases which experience continuous causes of a decline in the value of the domestic currency.

### ***Underpricing***

Underpricing is a condition caused by differences in interests of the parties related to the stock offering in the initial market. When the initial selling price of shares set by the underwriter and the issuer is cheaper than the bid and demand prices that arise on the secondary market, a phenomenon called underpricing arises.

According to Ritter, 1999 in Hapsari (2012: 35) about underpricing theory states:

1. Theory Investment Banker This Monopsony Power Hypothesis argues that underwriters who are more aware of capital market conditions tend to set lower prices in order to avoid the risks they bear.
2. The Lawsuit Avoidance Hypothesis. This theory argues that the underpricing phenomenon is an attempt by underwriters and issuers to safeguard and avoid legal consequences in the future and the risk of decreasing their reputation because it does not present the true value of the company.
3. The Ownership Dispersion Hypothesis. This theory states that the issuer has a goal when lowering its initial stock price, namely to expand market demand so that it can obtain a large number of minority shareholders (no majority shareholder).

### ***Initial Public Offering (IPO)***

Definition of public offering in the Law of the Republic of Indonesia No. 8 of 1995 concerning Capital Market is the activity of offering securities conducted by Issuers to sell Securities to the public based on the procedures stipulated in this law and the implementing regulations. For companies that have not been listed on the Indonesia Stock Exchange and wish to go public, the company must make an initial public offering (IPO) in the primary market. The term go public is when for the first time the company offers its shares to the public (public).

Go public allows the community and management to know the value of the company, which is reflected in the bargaining power of the shares. If the company is estimated as a company that has prospects in the future, the value of the shares will be high.

Companies that go public will get some benefits, both those that are directly related to the financial and non-financial aspects of the company. Benefits that will be obtained by companies that will go public include:

1. The company will obtain cheap funds from a very broad investor base for the purpose of increasing capital.
2. Providing liquidity and market value to the company's wealth which is the economic value of the founders' efforts.
3. Raising the view of the general public (image) towards the company so that it becomes the target of professionals as a place to work.
4. Shareholders, especially individuals will tend to be loyal customers to the company's products, because of a sense of belonging to the company (sense of belonging).
5. Public companies enjoy free promotion through the mass media, especially companies whose shares are actively traded, liquid and the share ownership is widespread and has a large capitalization.

But in addition to the benefits that will be obtained by companies going public, there are also consequences that must be borne by the company. The consequences that must be faced by public companies include:

1. The process of going public requires energy, sacrifice, time and costs.
2. Entry of new participants who will take part in company policy, participate in having claims on the results of business and company property.
3. Obligation to fulfill continuous information disclosure (continuous disclosure), which also requires costs, time and energy.
4. Transformation of attitudes and actions of the management as well as the founders of shareholders, especially those concerning the development of long-term good relations with minority public shareholders

**Theoretical Framework and Hypothesis Development**  
*Theoretical Framework*

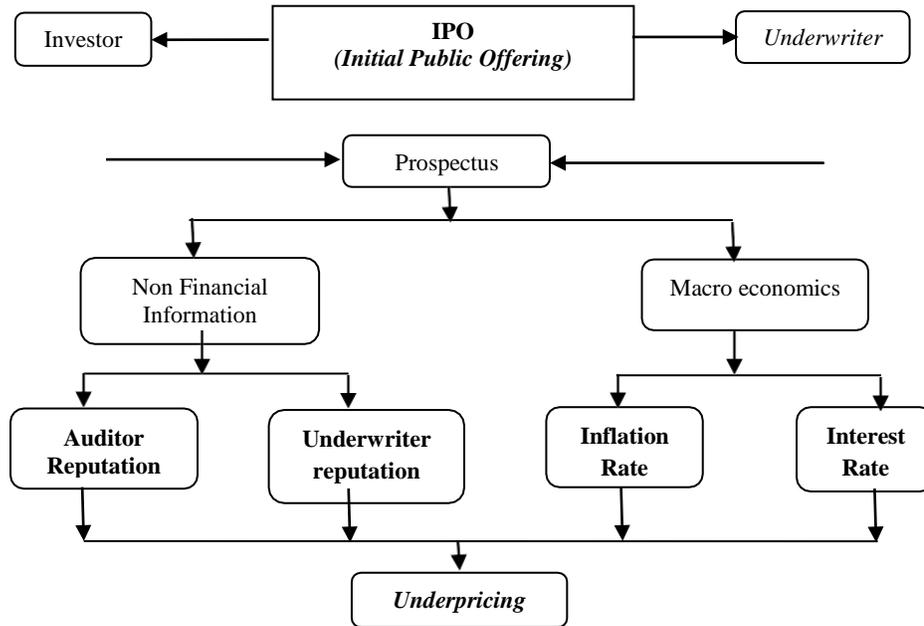


Figure 1: Theoretical Framework

**Method**

According to Sugiyono (2012: 5) the research method is basically a scientific way to get valid data with the aim of being found, developed, and proven, a certain knowledge so that in turn it can be used to understand, solve and anticipate problems ".

This research uses descriptive research method by collecting data related to this research, namely Non Financial Information (Reputation of Underwriter and Auditor's Reputation), and Macroeconomics (Inflation Rate and Interest Rate) on Underpricing for companies conducting IPO for the period 2011-2015. The verification method is used to examine more deeply about the influence of Non-Financial Information (Reputation of underwriters and auditor's reputation), and Macroeconomics (inflation rate and interest rate) on Underpricing, as well as testing theory by testing a hypothesis whether it is accepted or rejected.

**Population and research sample**

The population in this study were companies listed on the Indonesia Stock Exchange that conducted IPO in the period 2011-2015, namely as many as 121 companies.

The sampling technique in this study was by purposive sampling method, so the sample in this study were 64 companies. Sugiono (2012: 122) states that: "Purposive sampling is a sampling technique with certain considerations." The criteria for the companies sampled in this study are:

Table 1: Sampling Criteria

Criteria	Total
The total number of companies conducting IPO for the period 2011-2015	121
A company that has an Initial Return value	(5)
Companies that experience overpricing	(18)
Companies that have negative ROE values	(13)
Companies that have incomplete data	(21)
Companies selected as samples	64

Source: IDX, [www.sahamok.com](http://www.sahamok.com)

### **Data source**

The type of data needed in this study is secondary data. In this study secondary data used are as follows:

1. Share price data at the time of the initial offering and closing price at the secondary market of each company that conducts the initial offering listed on the IDX for the 2011-2015 period.
2. Bank Indonesia inflation data and interest rates from the annual report of Bank Indonesia.
3. The company's annual financial statements before conducting an IPO.

### **Data collection technique**

Data collection techniques in this study are observational studies and literature studies. Observation study is recording the initial offer price and closing stock price in the secondary market in the early period of 2011 - the end of 2015. Literature study is done by reviewing several books, journals, previous research and theories related to the problem being studied which serves to support data- Secondary data obtained from observations of research objects and other references. The source of this research data was obtained through an internet site [www.idx.co.id](http://www.idx.co.id) and [sahamok.com](http://sahamok.com)

### **Operational Variables**

#### **Underwriter Reputation**

(X1)

Underwriter reputation can be measured by ranking underwriters based on the total value of transactions conducted by underwriters each year. The data was issued by the IDX from 2011-2015. Where measurements are made using a scale of 1 to 5 as a limit.

Table 2: Grouping Based Underwriters Ranking issued by IDX

Rangking Underwriter	Value
1-25	5
26-50	4
51-75	3
76-100	2
101-125	1

***Auditor Reputation (X2)***

Auditor reputation is a dummy variable which is a qualitative (non-measurable) variable that is converted into a quantitative variable (in the form of numbers consisting of 0 (zero) and 1). So in this study a score of 1 is given to the auditor's value with a high reputation value and a score of 0 for a low reputation auditor value. The measurement standard of the auditor's reputation is based on the public accounting firm (KAP) which is a partner of the Big Four in the 2011-2015 period.

***Macro economics******Inflation Rate******(X3)***

The inflation rate in this study was obtained from the annual inflation data obtained in the annual report of Bank Indonesia. The inflation rate used is the percentage rate of inflation in the month when the company conducts its initial public offering.

***Interest Rate (X4)***

The interest rate in this study is obtained from the percentage of the interest rate set by Bank Indonesia every month when the company conducts an IPO.

***Underpricing (Y)***

Jogiyanto in Nandra (2015: 929) underpricing is measured by initial return, based on daily return, namely the difference between the stock price on the first day of closing on the secondary market and the stock price when the IPO is divided by the share price during the IPO. Initial return is the initial profit obtained by the investor.

Initial return can be formulated as follows:

$$\text{Initial Return} = \frac{\text{closing price} - \text{offering price} \times 100\%}{\text{offering price}}$$

***Multiple Linear Regression Analysis***

Multiple linear regression analysis, basically is the study of dependent variable dependence (bound) with one or more independent variables (independent variables), with a measurement scale or ratio in a linear equation. The general equation of multiple linear regression is systematically according to Sugiyono (2012: 277) the multiple linear regression formula is as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

Information:

Y: Underpricing

a: Constants

X1: Underwriter

Reputation X2: Auditor

Reputation

X3: Inflation

rate X4: Interest

rate e: error

b1-b2: Regression coefficient, is the amount of change in the related variable due to changes in each independent variable unit.

### ***Hypothesis***

The formulation of the hypothesis in this test is as follows:

1. Effect of Auditor Reputation on Underpricing.  
H01: Auditor reputation partially has no influence on underpricing.  
Ha1: Auditor reputation partially has an influence on underpricing.
2. Effect of Underwriter Reputation on Underpricing.  
H02: Underwriter reputation partially has no influence on underpricing.  
Ha2: Underwriter's reputation partially has an influence on underpricing.
3. Effect of Inflation on Underpricing.  
H03: Inflation rate partially has no effect on underpricing.  
Ha3: Inflation rate partially has an influence on underpricing.
4. Effect of Interest Rate on Underpricing.  
H04: Interest rates do not partially have an influence on underpricing.  
Ha4: The interest rate partially has an influence on underpricing.

### **Findings**

#### ***The Influence of the Auditor's Reputation on Underpricing on companies conducting Initial Public Offering (IPO) on the IDX for the period 2011-2015.***

Based on the regression results in the table shows that the results of sig. Auditor reputation is 0.004. Then the probability value is  $0.004 < 0.05$  and the value of t counts is  $-2.969 < t_{table} -2.002$  and the coefficient ( $\beta$ ) is negative (-0.34) so it can be concluded that H01 is rejected and Ha1 is accepted. Which means the regression coefficient of Auditor Reputation has a significant effect on Underpricing. Companies whose financial performance conditions are feasible are one of the conditions for companies that will go public. To ensure the condition of the company's financial performance is feasible or not, the company hires an independent auditor to check the suitability of the financial statements based on financial standards. This is expected to reduce uncertainty and reduce the likelihood of underpricing. Information asymmetry (information imbalance) between auditors and companies can lead to underpricing, with auditors having good quality, so the tendency of companies to manipulate their financial statements is lower.

And also with the high reputation of an auditor, the financial statements at the audit will also be free from uncertainty and will not mislead the users of the financial statements.

#### ***Influence of Underwriter Reputation on Underpricing on companies conducting Initial Public Offering (IPO) on the IDX for the 2011-2015 period.***

Based on the regression results in the table shows that the results of sig. Auditor reputation is 0.15. Then the probability value is  $0.01 < 0.05$  and the value of t counts is  $-2.505 < t_{table} -2.002$  and the coefficient ( $\beta$ ) is negative (-0.299) it can be concluded that H02 is rejected and Ha2 is accepted. Which means the regression coefficient of Underwriter Reputation has a significant effect on Underpricing. The role of underwriters is very important because they are considered to have more information. Underwriter reputation is a consideration for investors to invest. The better the ability of the underwriter to carry out underwriting, the lower the underpricing. A good underwriter reputation can reduce underpricing, whereas if the underwriter has a low reputation, the greater the level of underpricing

***Influence of Inflation Rate on Underpricing on companies conducting Initial Public Offering (IPO) on the IDX for the period 2011-2015.***

Based on the regression results in the table shows that the results of sig. Inflation rate is 0.58. Then the probability value  $0.58 > 0.05$  and the value of t count  $0.557 < t$  table 2.002 and the positive coefficient ( $\beta$ ) (0.09) it can be concluded that  $H_{03}$  is accepted and  $H_{a3}$  is rejected. Which means the regression coefficient of Inflation Level does not have a significant effect on Underpricing. This condition makes people more selective in spending their money including investment. Increased prices of goods will cause trade to become sluggish and company profits to decline. This inflation rate is measured by looking at the amount of inflation that occurred in Indonesia a month before a company made an IPO. Based on signaling theory, a decrease in corporate profits and a decrease in equity securities will cause demand activities in the capital market to decline. The decline in demand will have an impact on stock prices on the secondary market which has decreased. As a result, the stock price on the primary market will be higher than the secondary market.

***Effect of Interest Rate on Underpricing on companies that conduct Initial Public Offering (IPO) on the IDX for the period 2011-2015.***

Based on the regression results in the table shows that the results of sig. Interest Rate of 0.576. Then the probability value is  $0.576 > 0.05$  and the value of t counts is  $-0.563 > t$  table -2.002 and the coefficient ( $\beta$ ) is negative (-0.092) it can be concluded that  $H_{04}$  is accepted and  $H_{a4}$  is rejected. Which means the regression coefficient of interest rates does not have a significant effect on Underpricing. Based on signaling theory, the interest rate will influence the investor's decision to choose a more profitable investment. The investor's decision to divert investment from the capital market will make stock demand decline. This will make the stock price in the secondary market experience a decrease in value, so that the initial stock price becomes higher (the level of underpricing is lower).

**Discussion and Conclusion**

***Discussion***

***Descriptive Statistics Test Results***

Descriptive Statistics is a test conducted on variables in the study as dependent and independent variables. The variables in this study that will be tested are Auditor Reputation, Underwriter Reputation, Inflation Rate, and Interest Rate as independent variables, while Underpricing is the dependent variable. The test results in this study will show the amount of data (N), the mean value (mean), and the standard deviation value ( $\delta$ ) of each variable based on the data of the companies being sampled.

The results of descriptive statistical calculations are as follows:

Table 3: Descriptive Statistics

	Mean	Std. Deviation	N
Y = Underpricing	.265255	.2189806	64
X1 = Auditor Reputation	.219	.4167	64
X2 = Underwriter Reputation	.344	.4787	64
X3 = Inflation rates	.066797	.0077979	64
X4 = Interest rates	.057805	.0161656	64

Based on the table above states that the amount of data (N) in the study period (2011-2015) is 64 companies. Underpricing as the dependent variable has an average value (mean) of 0.265255, the standard deviation value is 0.2189806. While independent variables such as Auditor Reputation and Variable Reputation Underwriter variables that use dummy variables have an average value (mean) of 0.219 and 0.344, and the standard deviation value of 0.4167 and 0, 4787. Interest Rate variables have an average value (mean) of 0.066797, and the standard deviation value of 0.0077979. The inflation rate variable which has an average value (mean) of 0.057805 and a standard deviation value of 0.0161656.

**Partial Test (T Test)**

Table 4: Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	0.446	0.246		1.811	0.076		
X1 = Auditor Reputation	-0.197	0.066	-0.364	-2.969	0.004	0.921	1.085
Underwriter Reputation (x2)	-0.139	0.055	-0.299	-2.505	0.015	0.969	1.032
Inflation rates (x3)	1.223	2.195	0.09	0.557	0.58	0.528	1.894
Interest rates (x4)	-2.591	4.606	-0.092	-0.563	0.576	0.515	1.942

a. Dependen Variable : Underpricing

**Simultaneous Test (F test)**

Simultaneous Test (Test f) aims to determine whether all independent variables included in this model have a joint effect on the dependent variable, Ghozali (2013). Following are the results of regression tests based on ANOVA tables:

Table 5: ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.677	5	.097	2.31	.038
	Residual	2.344	59	.042	2	b
	Total	3.021	64			

a. Dependent Variable: Underpricing (Y)

b. Predictors: (Constant), Interest Rate (X4), Underwriter Reputation (X2), Auditor Reputation (X1), Inflation rates (X3)

Based on the ANOVA test results from the table above obtained the calculated F value of 2.312 > F table of 2.26 with a significance level of 0.038. Then the significance level of 0.038 < 0.05 so that it can be concluded that the Auditor's Reputation, Underwriter Reputation, Inflation Rate, Interest Rate are variables that influence the Underpricing variability. From the above conclusions,

it can be said that this research model can be accepted.

**Determination Coefficient**

The coefficient of determination is to measure how far the ability of the model in explaining the variation of independent variables. The coefficient of determination is between zero and one.

Table6: Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.473 a	.224	.127	.20457 9	1.775

a. Predictors: (Constant), Interest Rate (X4), Underwriter Reputation (X2), Auditor Reputation (X1), Inflation rates (X3)

b. Dependent Variable: Underpricing (Y)

Based on the table above the value of Adjusted R Square is 0.127 or 12.7%. This shows that the influence of the independent variable on the dependent variable is only 12.7%. This means that the independent variables used in the model can explain the variation of the dependent variable by 12.7%, while 87.3% is influenced by other variables not examined.

**Conclusion**

In this study the author wants to answer how the influence of Financial Information and Non-Financial Information on Underpricing on all companies that do IPOs on the Indonesia Stock Exchange in the 2011-2015 period. Based on the results of an analysis of 64 companies that conducted IPOs on the IDX for the 2011-2015 period, conclusions can be drawn as follows:

1. Non-Financial Information Variables which include, Reputation of the Auditor and Reputation of Underwriters have a partial influence on Underpricing, with a negative influence.
2. Macroeconomic variables which include Inflation Rate and Interest Rate do not have a partial effect on Underpricing.
3. Non-Financial Information Variables (Underwriter Reputation and Reputation Reputation) and Macro Economy (Inflation Rate and Interest Rate) have a simultaneous influence on Underpricing.
4. The results of this study also show that the ability of independent variables Auditor Reputation, Underwriter Reputation, Inflation Rate and Interest Rate in explaining the Underpricing dependent variable is 12.7%, while 87.3% is influenced by other variables not examined.

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# Practising Conflict Management Strategies in Primary Schools: A Malaysian Scenario

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## Abstract

**Purpose:** The main purpose of this study is to identify management strategies adopted by schools' administration in the situation of conflict. The study also aims to determine the situation of conflicts in the Malaysian primary schools in aspect to the factors, stages, impression as well as the way to manage the conflict.

**Design/methodology/approach:** A survey has been carried out to the various types of schools in Selangor, Kuala Lumpur and Negeri Sembilan in Malaysia by distributing 1309 questionnaires to the respondents. Descriptive analysis were used to answer the research questions.

**Findings:** Findings show that communication, authority, rewards, resources, personality, human relations and allocation of duties among the main factors that lead to conflicts in schools.

Moreover, results indicate that collaborating, accommodating and compromising conflict management approach are among the main strategies that is taken by the school headmasters, senior assistants, and teachers while facing with conflict situation.

**Research limitations/implications:** The implication of this study shows that the headmasters and senior assistants have to be trained in the aspect of managing conflicts. The paper includes implications for the development of the schools' management with well-handled conflict strategies that will stimulate creativity and innovation.

**Keywords:** Conflict management, Management strategies, Primary schools, Principals, Education, Malaysia

## Introduction

The education system and schools are facing with various challenges in light of the globalization process (Wan Chik, 2002). Due to these changes, the management team of today's schools faces an increasingly challenging role which puts pressure on the schools' managers to deal with these changes (Abdul Rafie, 2002). This challenging situation is contributing to the emergence of conflicts among the stakeholders in schools. Conflicts exist at various levels within the school organization such as between teachers and administrators, teachers with teachers, parents with teachers and among fellow administrators (Campbell et al.,

1988; Owen, 2004; Seyfarth, 2008). Effective school management depends on collaboration and teamwork among teachers, students, administrators, and parents. Decision making in educational systems is frequently characterized by conflict and disagreement due to differences in interests and opinions among these stakeholders. Head teachers who are the chief executives in schools need to manage conflicts using strategies that yield functional synergies and create a constructive school culture that results in teachers' and students' satisfaction with the school climate.

Conflicts in a schooling organization need to be identified by the headmaster so that it will not deteriorate into a problem. The spread of uncontrolled conflict in a school system can become an "unseen flame" which can affect the stability of an organization. Many school headmasters tend to ignore conflicts that exist in their organization and choose to avoid dealing with them. These, results in an unhealthy situation and if prolonged will lead to various chronic problems (Seyfarth, 2008).

The issue of workload caused many teachers to experience mental stress which lead to some of them to commit suicide. The report disclosed by the National Union of Teaching Profession states that there are 320,185 teachers throughout the country, who experienced mental stress due to workload other than teaching (Utusan Malaysia November, 2007). This report has received serious attention by the Ministry of Education of Malaysia. Consequently, teacher workload issues need to be studied and the extent to which it brings pressure on teachers to the detriment of professionalism and the role of teaching institutions especially schools. It is expected that this study will give an overview and answers to the issue which is getting wider attention.

Thomas and Kilmann (1974) describe five orientations towards controlling conflicts. The failure of the headmaster to use the right and suitable approach towards resolving a conflict can cause the conflict to spread and threatened the harmony in school. Studies have to be carried out to identify the best approach to handle conflicts effectively in schools.

Conflicts often occur in the organization due to lack of information among teachers (Maurer, 1991). Ramli (2000) found that conflict management approaches among teachers in secondary schools in Perak showed a positive relationship between the factors of inadequate information and conflict management styles. Complete information can help the headmasters and school administrators to manage conflict effectively. Many headmasters have insufficient knowledge to deal with conflicts effectively and thus, they merely use their experiences.

The organizational structure of the education system in Malaysia is school-based with a vertical hierarchy of several layers and levels with the highest authority located at the Ministry of Education. This is followed by the State Education Department and District Education Offices. The school system is divided into primary and secondary schools. Primary schools consist of National School, National Type Chinese School and National Type Tamil School. Primary schools are divided into grade A, grade B and Low Enrolment School. The primary school organizational structure is headed by a Headmaster (GB) and assisted by a Senior Assistant for Curriculum (PK 1), Senior Assistant for Student Affairs (PK HEM) and Senior Assistant for Co-curriculum (PK KOKU). Due to numerous levels of management in the school management structure, information often become distorted which eventually cause conflicts in schools. As a multiracial country, it is very important for Malaysia to maintain the peace and harmony of its people in general and of its workers in particular. Thus, an understanding on personalities and conflict management styles practiced by these three types of schools is hoped to be achieved in order to create empathy, harmony and to ensure that conflicts can be managed effectively (Salmah et al., 2006). Failure of the school management to deal with conflicts that exist can lead to more complex problems (Runde & Flannagan, 2007).

It is difficult to control an interpersonal conflict when both parties come from different cultures (Lulofs & Cahn, 2000). This indicates that a variety in backgrounds can produce a variety in conflict management styles. As a multiracial country, it is very important for Malaysia to maintain the peace and harmony of its people in general and of its workers in particular. An understanding on personalities and conflict management styles practiced by these three types of schools is hoped to be achieved in order to create empathy, harmony and to ensure that conflicts can be managed effectively (Salmah et al., 2006). Therefore, this paper aims to identify the perceptions of the headmasters, senior assistants and teachers on the conflicts that exist in primary schools. Moreover the study seeks to identify the level of conflicts as well as the factors that lead to conflicts in schools. In addition, it will investigate the conflict management strategies that practiced more often in schools.

### **Theoretical Foundation**

The framework of this study is based on the Integrative Conflict Management Organisation Model and Conflict Integrative Simulation by Wahyudi (2006). The independent variables are represented by the aspects of position, type of school and grade of school which are incorporated into the research conceptual framework as shown in Figure 1. The main factors such as communication, authority, personality, limited resources, reward and human relations have been identified in these models as contributors to the existence of conflicts in schools which will be studied in this research. However, these conflict causing factors are also closely inter-related in contributing to the emergence of conflicts in schools.

In the Integrative Conflict Management Model, the conflict management style varies with a leader's style. There are five styles in managing a conflict namely collaboration style, accommodation style, avoiding style, competition style and compromising style. Therefore this research will study the types of style often applied by headmasters, administrators and teachers in handling conflicts in schools.

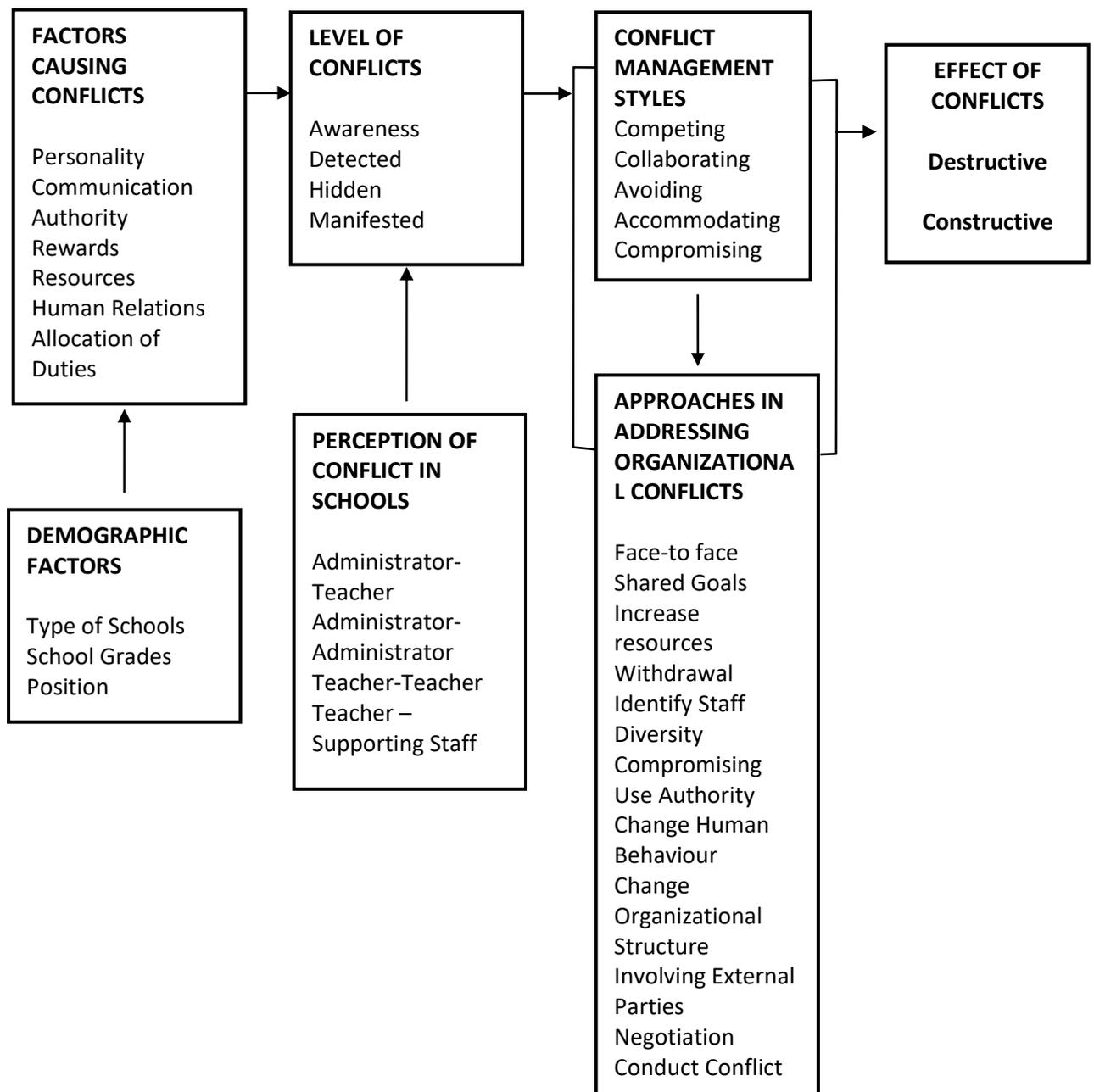


Figure 1: Conceptual framework for school conflict management (Source: Wahyudi, 2006).

Furthermore, the Integrative Conflict Management and Conflict Integrative Stimulation model, states eleven approaches for leaders in addressing organizational conflicts which are face-to-face, shared goals, increase resources, withdrawal, identify staff diversity, compromising, use authority, change human behavior, change organizational structure, involving external parties, negotiation and conduct conflict management program. According to Wahyudi (2006), conflict can lead to either a functional or dysfunction effect to the organization depending on the approach taken by a leader. The approach that causes a functional effect will improve the quality of decision making, stimulate creativity, innovation and encourage changes in the organization while the destructive approach will cause ineffective communication, and alienate individuals who will make the organization ineffective (Buchanan & Huczynski, 1997).

This study, aims to provide a comprehensive picture on the conflicts that exist in primary schools based on the factors causing conflicts, level of conflicts, style and approach towards conflicts as well as the effects of conflicts which are the dependent variable in this study.

## Method

### *Research Design & Sampling*

A quantitative research design was conducted using questionnaires as the main instrument. Survey questionnaires were distributed to 1309 primary schools consist of 482 National Schools, 526 National Chinese Schools and 301 National Tamil Schools among three states in the middle zone of Peninsular Malaysia. Profiles of the respondents are shown in Table 1, below:

Table 1: Demographic profile of the samples (n=1309)

Respondents' Background		Headmasters		Senior Assistants		Teachers	
		Freq.	%	Freq.	%	Freq.	%
<b>Gender</b>	Male	58	4.4	175	13.4	162	12.4
	Female	70	5.3	354	27.0	490	37.4
Total: 1309							
<b>Ethnicity</b>	Malay	48	3.7	179	13.7	254	19.4
	Chinese	51	3.9	184	14.1	241	18.4
	Indian	29	2.2	123	9.4	188	14.4
	Others	-	-	1	0.1	11	0.8
Total: 1309							
<b>School Grade</b>	Grade A	71	5.4	221	16.9	448	34.2
	Grade B	31	3.4	105	8.0	211	16.1
	National	26	2.0	76	5.8	120	9.2
	School M						
Total: 1309							
<b>School Type</b>	National (N) Schools	48	3.7	144	11.0	290	22.2
	N Chinese Schools	51	3.9	164	12.5	311	23.8
	N Tamil Schools	29	2.2	94	7.2	178	13.5
Total: 1309							

Based on the information provided in Table 1 above, it was found that 58 (4.4%) of the respondents are male headmasters, 70 (5.3%) are female headmasters. Also, 175 (13.4%) of these respondents are male senior assistant while 354 (27.0%) are female senior assistant. Meanwhile, 162 (12.4%) of the respondents are male teachers while the remaining 490 (37.4%)

are female teachers in Malaysian primary schools. On ethnicity, it was found that 48 (3.7%) of the respondents are Malay headmasters. 51 (3.9%) are Chinese headmaster while 29 (2.2%) are Indian Malaysian headmasters. The table also shows that 179 (13.7%) of the respondents are Malay senior assistant, 184 (14.1) are Chinese, 123 (9.4%) are Indian while 1 (0.1%) is from other ethnic group not mention in this study. Meanwhile, 254 (19.4%) of the respondents are Malay teachers, 241 (18.4%) are Chinese teachers, 188 (14.4%) are Indian teachers while 11 (0.8%) are teachers from other ethnic. Furthermore, the table reveals that 71 (5.4%) of the respondents are headmasters from Grade A schools, 31 (2.4%) are headmasters from Grade B schools while 26 (2.0%) are headmaster from National Schools. In all, it was found that 128 (9.8%) of the respondents are headmasters, 402 (30.7%) are senior assistant while 779 (59.5%) are teachers.

### ***Instrumentation & Data Analysis***

The construction of these questionnaires was based on Rahim (1995) Organizational Conflict Inventory II (ROCI-II) as well as review of relevant literature by the researchers. There are 61 items, which are grouped into 7 factors that contribute to conflict and 28 items on handling conflict styles among administrators. The factors that contribute to conflict are communication, resources, allocation of duties, human relationship, personality, authority and reward. The 28 items were divided into five styles to manage conflict: avoid, negotiate, accommodate, collaborate and compete. They are also 11 approaches in addressing organizational conflicts. The instrument was tested and retested on 39 headmasters through a pilot test conducted in 2014 and the reliability value found was alpha Cronbach .958. Mohd Majid Konting (2004) stated that a reliability value of more than .60 is commonly used. Data were analyzed using the “Statistical Package for the Social Sciences for Windows” (SPSS) version 16.0. The descriptive statistical analysis provided a comprehensive description through the use of frequency analysis, percentages and standard deviations in order to give a description on the background of respondents.

### **Findings**

#### ***Perceptions of the Respondents on Conflict in Schools***

The table below shows the type of respondents’ perceptions with regards to conflicts in schools.

Table 2: Perceptions of the respondents on conflict in schools

<b>Opinion On Conflict</b>	<b>Headmasters</b>		<b>Senior Assistants</b>		<b>Teachers</b>	
	<b>Freq.</b>	<b>%</b>	<b>Freq.</b>	<b>%</b>	<b>Freq.</b>	<b>%</b>
Conflict Among Teachers	61	4.6	115	8.7	174	13.3
Conflict Among Colleagues	35	2.7	65	5.0	82	6.3
Conflict Among Subordinates	15	1.2	56	4.3	80	6.1
Not happy with the school structure	54	4.1	108	8.3	223	17.0
Staff relationships	50	3.8	74	5.7	117	8.9

The data shows that conflict among teachers seemed to be the most prevalent based on the opinion of the Headmasters, Senior Assistants and Teachers. This follows by conflict between administrators and teachers. In addition, majority of respondents specified that they are not happy with existing school structure.

#### **Factors that Lead to Conflicts in Schools**

Table 3 below, shows the respondents' views on the factors that lead to conflicts in schools. These factors are including: Communication, Authority, Rewards, Resources, Personality, Human Relations and Allocation of Duties. The analysis on the factors presented here:

Table3: Factors that lead to conflicts in schools

Factors Lead to Conflicts in Schools	Headmasters			Senior Assistants			Teachers		
	Mean	SD	Level	Mean	SD	Level	Mean	SD	Level
Communication	2.06	.72	Low	2.10	.766	Low	2.09	.857	Low
Authority	1.94	0.75	Low	1.98	.79	Low	2.50	0.88	Low
Rewards	1.98	.737	Low	2.06	.837	Low	2.24	.958	Low
Resources	2.10	.983	Low	2.08	.863	Low	2.18	.922	Low
Personality	2.02	.757	Low	2.05	.786	Low	2.17	.863	Low
Human Relations	1.89	.798	Low	1.97	.804	Low	2.07	.892	Low
Allocation of Duties	2.10	.755	Low	2.18	.821	Low	2.44	.952	Moderate

The data shows that the overall mean scores analysis for factors that lead to conflicts in schools such as communication, authority, rewards, resources, personality, human relations and allocation of duties seemed to be low according to the Headmasters', Senior Assistants' and teachers' personal assessment. In another words, factors that lead to conflicts in Malaysian schools are under control.

#### The Level of Various Conflicts that Exist in Schools

Table 4 below shows the level of conflict among the headmasters, senior assistants and teachers from the aspects of the levels of awareness conflict, detected conflict, hidden conflict and manifested conflict:

Table 4: Levels of various conflicts that exist in schools

Level of Conflict in Schools	Headmasters			Senior Assistants			Teachers		
	Mean	SD	Level	Mean	SD	Level	Mean	SD	Level
Awareness Conflict	2.19	.819	Low	2.09	.834	Low	2.13	.915	Low
Detected Conflict	1.96	.781	Low	1.83	.740	Low	1.79	.773	Low
Hidden Conflict	1.95	.807	Low	1.87	.776	Low	1.97	.870	Low
Manifested Conflict	2.28	.937	Low	1.99	.862	Low	1.95	.876	Low

The table above shows that the mean scores and Standard Deviations for levels of conflict in schools. The data shows that awareness conflict, detected conflict, hidden conflict and manifested conflict are rated as low level by Headmasters, Senior Assistants and teachers. But the Headmasters are more focus towards manifested conflict. Overall the status of conflict level in primary Malaysian schools are low and under control.

#### Conflict Management Strategies that Practiced By the Respondents

Table 5 shows the mean scores and standard deviations for conflict management strategies that frequently adopted by Headmasters, Senior Assistants and teachers in Malaysian primary schools.

Table 5: Conflict management strategies frequently adopted in schools

Conflict Management Styles	Headmasters			Senior Assistants			Teachers		
	Mean	SD	Level	Mean	SD	Level	Mean	SD	Level
Collaborating	4.18	.725	High	4.05	.728	High	3.90	.756	High
Accommodating	3.74	.775	High	3.68	.799	High	3.67	.798	High
Avoiding	3.53	1.01	Moderate	3.64	.967	Moderate	3.66	0.93	Moderate
Compromising	4.18	.707	High	4.11	.708	High	3.94	.730	High
Competing	2.72	0.98	Moderate	2.58	1.04	Moderate	3.66	1.03	Moderate

The data in the above table shows that all types of conflict management strategies that have been adopted by all the respondents who seem more prone to adopt the collaborating, accommodating and compromising conflict management styles. Teachers like to adopt the avoiding and competing styles in combating conflicts. The Headmasters and senior assistants like to adopt the win-win and collaborating (integrating) approaches in overcoming conflicts. The data also shows that the school administrators seldom use the competing strategies in managing conflict.

### The Effects of Conflict Management in Schools

Table 6 shows the mean scores and standard deviations for effects of conflict based on the perceptions of Headmasters, Senior Assistants and teachers.

Table 6: Effects of conflict management in schools

Effect of Conflict	Headmasters		Senior Assistants		Teachers	
	Mean	SD	Mean	SD	Mean	SD
Create positive change	4.21	0.542	4.06	.702	3.94	.721
Increase trust	4.16	.449	4.01	.694	3.89	.699
Enhance confidence in making decision	4.28	.516	4.07	.663	3.94	.645
Enhance team work	4.30	.566	4.16	.642	3.99	.681
Encourage to search for new information	4.25	.486	4.08	.657	3.94	.650
Happy with the decision being made	4.07	.604	3.92	.714	3.79	.678
Increase work motivation	4.26	.592	4.08	.730	3.94	.727
Encourage creativity and innovation	4.24	.649	4.08	.714	3.90	.739
Enhance good relationships	4.26	.605	4.13	.714	4.02	.701
Giving inspiration towards finding of solutions	4.27	.540	4.14	.654	3.97	.598
Encourage healthy competition	4.23	.621	4.07	.712	3.91	.691
Increase work efficiency	4.26	.605	4.11	.678	3.96	.704
Deepen understanding of staff	4.30	.580	4.19	.654	4.03	.692

Above table shows that all the three types of respondents expressed about the effects of conflicts are that conflicts have made them to deepen their understanding of staff, enhance team work and promote good relationships.

### The Conflict Management Approach That Is Often Implemented

Table 7 tabulates the conflict management approaches normally adopted by Headmasters and Senior Assistants in Malaysian Schools.

Table 7:.Conflict management approaches that is often implemented

Approaches to Conflict Management Frequency of Occurrence	Headmasters		Senior Assistants	
	Seldom	Always	Seldom	Always
Face-to-face	36.7%	63.3%	57.5%	42.5%
Shared Goals	21.9%	<b>78.1%</b>	29.4%	<b>70.6%</b>
Increase Resources	37.5%	62.5%	43.5%	56.5%
Withdrawal	75.0%	25.0%	75.6%	24.4%
Identify Staff Diversity	25.0%	<b>75.0%</b>	41.0%	59.0%
Compromising	35.2%	64.8%	30.8%	<b>69.2%</b>
Use Authority	70.3%	29.7%	76.4%	23.6%
Change Human Behavior	64.1%	35.9%	78.6%	21.4%
Change Organizational Structure	80.5%	19.5%	84.6%	15.4%
Involvement of External Parties	<b>96.1%</b>	3.9%	<b>84.8%</b>	15.2%
Negotiation	30.5%	69.5%	44.5%	55.5%
Conduct Conflict Management Program	63.3%	36.8%	78.4%	21.6%

The data shows that the approach that is frequently employed by Headmasters and Senior Assistants is 'Shared Goals' (Headmasters 78.1%; senior assistants 70.6%). The second approach frequently adopted by Headmasters is 'identify staff diversity (75.0%) but the Senior Assistants are more prone to adopt 'compromising approach' in managing conflicts in schools. The approach least adopted is 'involving external parties' (Headmasters 96.1% and senior assistants 84.8%) to overcome school crises.

### Discussion and Conclusion

There are many factors that cause conflict in an organization and mainly interpersonal and intrapersonal conflict. However in schools, the interpersonal relationship that occurs in group work, discussion and handling task is a common circumstances and non-avoidance towards conflict due to differences in personality, values, interest, belief and attitude (Jones, 2005). Therefore it needs more consideration to build better relationship and understanding in order to minimize conflict.

School administrators denying and do not consider individual personality need to face with conflict (Afful-Broni, 2012). The bigger the population in a school, the more array of combined personalities that the administrators have to handle. The most important resource in a school are teachers, therefore administrators need to comprehend them individually by creating good relationship.

Arredondo (2004) indicates that most conflict arises in organization due to ineffectiveness of communication, lack of interaction and detailing out information. Result indicates that the national school administrators are lacking at communication and interaction compared to national type Chinese school and national type Tamil school although there is no differences between national school and national type Chinese school. There is a need to communicate effectively in order to achieve the mission and vision of the school.

The ability to convey school task effectively will evade conflict among teachers (Sharifah Madinah, 2007). It is also an advantage to the school development and performance by giving reasonable task and distributing it fairly among teachers. This, in addition, will motivate them without creating conflict. Result shown, conflict in national type Tamil school is less contributed by relationship, communication, personality and task distribution. The school administrators will understand their subordinates better if they build up good relationship with

them. They will also have less conflict if they apply fairly distribution of task among their teachers.

Result showed the styles in handling conflict differ between national school and national type Chinese school even though the factors that contribute towards conflict do not differ among them. There are significant differences between national type Chinese school and the other types of school in accommodating conflict. National school administrators accommodate more but on the other hand, they apply more competing style in managing conflict that arises in school. The administrators in national type Chinese school apply the least in accommodating conflict which mean that they do not compromise in dealing with conflict.

Finding showed that there is a difference in the style of competing between the administrator in the national type Chinese school and national school. Both are assertive, firm in working out their vision and mission, making quick decision and they implement win-lose situation when they met dead end towards the conflict situation in their school. Theoretically, the national school administrators apply more authority in this situation compared to national type Chinese school.

Besides competing, national type Chinese school also differs from national school and national type Tamil school in accommodating with conflict in the way they fit in demands. This situation occurs when the administrators impose authority with a dominant figure. There will be a lose-win situation in decision making (Robbin, 1988). The finding shows that national type Chinese school does implement this style in managing conflict but at minimal because they are more towards achieving their vision and mission rather than working in collaboration. A school depends on collaboration and teamwork among teachers and administrators in order to carry out their activities. Collaborative decision making in an educational system is frequently characterized by conflict and disagreement, given differing perspectives and opinions among participants, and differing in interests. School heads, charged with facilitator roles in primary schools, are challenged to address resulting conflicts in ways that yield functional synergies and constructive outcomes which enable schools to respond to community needs.

Findings showed that there was no difference in that factors that contributes to conflict between national school and national type Chinese school. This means that the head teacher of this type of schools share common problems in making decision and carrying out their task towards achieving their vision and mission. Based on the analysis, the head teacher of a national type Tamil school faces fewer problems in communication, personality, relationship and task distribution compared to the other two types of school. The numbers of students and teachers might contribute where the national type Tamil school has fewer students (Malaysian education statistics, June 2008). For this reason, they have less diversity of interest, opinions and perspectives as compared to national school and national type Chinese school. This concludes that there are more human based conflict factors as the number of people in an organization increase and it is more difficult to make decision collaboratively.

Results showed that various types of schools practice different way to handle conflict that arises in their schools. Therefore, the administrators will determine the style either with more assertive and less school cooperative approach or vice versa. The head teacher will gear the collaboration and teamwork among teachers in decision making. we found that both types of schools, keep good interpersonal relationship but the national school administrators are more humanistic, adopts more give-and-take approach in handling conflict, alternatively this lessens towards achieving vision and mission. This differs from the national type Chinese school where the administrators are more towards achieving their vision and mission. This might be the reason why they perform better than the others especially in their students' academic achievement.

This study found that headmasters should not deny, avoid or delay conflict but accomplish it according to their own style. Continuous conflict will hinder team performance (Somech, 2008; (Wahyudi, 2006) and will lead towards destructive performance (Bolman & Deal, 2003). There will be more problems if we avoid conflict. Well-handled conflict stimulates creativity and innovation thus creates a more conducive environment that enhances learning. We must let disagreements be aired and create room and opportunity to debate it and bear in mind not the amount of conflict we handle but how we manage it.

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# Influence of Human Resource Management Practices on Malaysian Construction Organizational Performance

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## Abstract

**Purpose:** The aim of this research is to examine the relationship between HRM practices and organizational performance in Malaysian construction industry. Those factors of HR practices that impact organizational performance within Malaysian construction organizations are addressed as well.

**Design/methodology/approach:** The cross-sectional study consisted of 205 construction professionals from different construction organizations located in Klang Valley area (State of Selangor and City of Kuala Lumpur) who participated the survey as the representative of whole population of the construction industry in Malaysia. Data were obtained either by hand-delivering or emailing the questionnaire to the human resource managers of the construction organizations. The structural equation (SEM) analysis using Partial Least Square (PLS) Smart Software Version 2.0 was used to analyze the main sample data based on the characteristics of the population in order to examine the constructs of the developed model.

**Findings:** The findings of this study revealed that HRM practices such as recruitment and selection, compensation and job design were found to have positive relationship with organizational performance in Malaysian construction organizations, except training and performance appraisal were not significantly correlated with organizational performance.

**Research limitations:** The research participants were not drawn from a large population throughout Malaysia. Hence, there are possibilities that the sampling method may have limited the generalizability of the findings in Malaysian context.

**Practical implications:** The results of this research enable HR managers or practitioners to identify those strategic HRM practices that might be required to achieve the organizational business strategy and goals. Finally, findings of this study can be used to increase the performance of construction organizations and contribute to the economic development in Malaysia.

**Originality/value:** This study offer useful insight for the future development of an effective HRM program for Malaysian construction organizations. It is expected that one can learn about the critical variables for efficient organizational performance application, particularly in Malaysian construction context. Working with this knowledge, the HR managers or professional development leaders can examine the success of HRM practices that are currently implemented within the construction organizations, find solution and make change of currently used HRM practices.

**Keywords:** Human Resource Management (HRM) Practices, Organizational Performance, Construction Organization, PLS-SEM

## Introduction

Human resources (HR) are very important to all fields including the construction industry. Construction is one of the most labour intensive industries, which has a major contribution to Malaysia's rapid economic growth. In year 2014, the industry represented 3.9% of the country's Gross Domestic Product (GDP) and provided employment for about 9% of the total labour force (Department of Statistics, Malaysia 2014). It is important for the construction organizations to achieve continuous improvement on their performance so as to remain competitive. However, the success of an organization relies on the commitment, contribution and support from its employee. In the rapidly expanding global economy, many business organizations depend on the expertise of their employees to improve on competitive advantage (Reiche 2007). As a result, it is crucial that a construction organization implements effective Human Resource Management (HRM) practices that make the best use of its employees. Many organizations nowadays have considered their employees as the most important resource in their organizations. Particularly in the construction organizations, human resources are special and the most valuable assets than in many other industrial sectors (Loosemore *et al.* 2003). Maintaining and attracting quality people has become especially important in the construction industry in the recent years because there is a growing shortage of qualified workers in that field especially, Malaysia is the most heavily reliant on foreign labour (International Labour organization, ILO 2013), thus improvements have to be linked more strongly to the human resource issues. Prior research works have underpinned the concept that HR practices can improve performance of organizations when they are appropriately designed, and that has attracted highest attention in the literatures of HRM in construction industry (Dainty & Loosemore 2012; Dainty *et al.* 2007). The organization will not be able to attain its established goals without having sufficient human resource; thereby managing human resource is the main role of the success of an organization. The influence of HRM practices on organizational performance in Malaysian construction industry is an area that is currently under-researched. Thus, the proposed research studies the current HRM practices on organizational performance in Malaysian construction industry. It also examines the relationship between human resource (HR) practices and organizational performance. The results from this study offer useful insight for the future development of an effective HRM program for Malaysian construction organizations.

## Literature Review

In Malaysia, the ten most significant factors that will ultimately lead to development of construction organizations are (1) good organizational management; (2) good cash flow management; (3) appropriate knowledge and experience; (4) good team members; (5) technical expertise; (6) good site management; (7) commitment to customer satisfaction; (8) availability of capital; (9) availability of skilled workers; and (10) good relations with clients (Abu Bakar *et al.* 2011). Many researchers have found that the effects of HRM practices can enhance organizational performance, namely improvement in productivity, product service quality, sales and profits, better services or products, customer satisfaction and market share (Beh & Loo 2013; Collins 2007; Wright *et al.* 2005). An effective HRM system therefore comprises of a complementary set of practices, which improves individuals' skills, knowledge and abilities, enhance motivation and commitment, provide useful information sharing, enable empowerment and employee involvement in decision making (Kadiresan *et al.* 2015; Boyatsiz 2008; Sandberg 2000; Godard 2005; Appelbaum *et al.* 2000). Based on the literature review of earlier research and empirical studies, it is recognized that successful organizations share a basic philosophy of valuing and investing in their employees (Hameed & Waheed 2011; Anand 1997).

Human resource management (HRM) involves the policies, systems and practices that directly affect and impact employees' behaviours, attitudes and performance (Singh & Jain 2014; DeCieri & Kramar 2008; Collins & Clark 2003) whereas Human resource practices include identifying human resource needs, selecting, recruiting, training, developing, rewarding, appraising and also attending to employee relations, work life balance, safety, health, fairness concerns etc. (DeCieri & Kramar 2008; Dessler 2007). Organizations can create an important source of competitive advantage through effective use of HRM practices, which has been proven to have significant impact on organizational performance based on the studies conducted by Dzansi and Dzansi (2010), Ordonez de Pablos and Lytras (2008), Collins (2007), and Chew and Basu (2005).

### ***Human Resource Management Practices***

The role and value of HRM practices have been researched on over the years by authors such as Beh and Loo (2013), Osman *et al.* (2011), Khan (2010), Uysal & Koca (2009), Bashir and Khattak (2008), Horgan and Mohalu (2006), and Guest *et al.* (2000b). Park *et al.* (2003) stated that HR practices are basically the levers or mechanisms that can develop and improve employee skills and performance. The purpose of HR practices is to improve retaining quality employees, reduce absenteeism and loitering at work, increase employee knowledge, skills and abilities as well as enhance employee motivation and commitment. Such HR practices involve selection and recruitment activities, training and development, career development, compensation and benefits, performance appraisal system, job design and employee participation in organizational level of decision-making.

Human resource practices are also the primary means through organization's implementation of HR practices, employees' attitudes, behaviours and abilities can be improved (Singh & Jain 2014; Takeuchi *et al.* 2009) and modified that enables increased performance of their job and accomplish the objectives of an organization (De Cieri *et al.* 2008; Collins & Clark 2003). Likewise, HRM activities are able to impact the organizational performance by enhancement of skills and quality (by way of selection and training) of employees and improvement in employee motivation (Godard 2005). Through attracting, selecting, identifying, and retaining valuable employees, and motivating them to carry on in a way that will uphold the organizational mission and objectives, HRM practices can improve organizational performance and effectiveness. In this manner, effective HRM practices rely on how the proper attitudes and behaviours in individuals are produced and exhibited apart from its implementation.

Organizations that invest in HRM activities such as selection, recruitment and development of human capital can directly impact employee skills and abilities. According to Garibaldi (2006), human capital pertaining to any stock of knowledge or characteristics that an employee may possess, either inherent or acquired will result in the organizational outcome such as employee productivity. Recruitment processes that generate an extensive pool of qualified and talented applicants will have a significant impact over the quality and sort of skills that the new employees possess. Likewise, employees' development can be influenced by giving formal and informal training experiences such as fundamental skill training, on-the-job experience, mentoring and management development. Through HRM practices, using valid selection procedures to recruit suitably skilled working people and conducting extensive training to develop existing employees can impact employees' skills. Indeed, if the highly talented employees are not motivated, they will not do their work effectively. As a result, HR practitioners can motivate their employees to perform better by implementing HRM practices. Other scholars who studied HRM have delineated its roles and functions from various aspects such as performance appraisal, job design, reward management and benefits (Brown *et al.* 2010; Knapp & Mujtaba 2010; De Cieri *et al.* 2008; Armstrong 2006). Mendelson, Turner, and Barling (2011) have proposed seven HRM practices which were adapted from the previous

study conducted by Pfeffer (1998) that are likely to improve organizational performance. These HRM practices are: selective recruiting of new employees, extensive training, self-managed teams and decentralization of decision making as the basic principles of organization design, comparatively high compensation contingent on organizational performance, employment security, reduced status distinctions and barriers. Dress, language, office arrangements and wage differences across levels, extensive sharing of financial and performance information throughout the organization are also characteristics of successful organizations.

The HRM systems, practices or strategies have frequently been mentioned as high performance work systems or high involvement work practices (Godard 2005; Delaney & Goddard 2001; Appelbaum et al. 2000). As explained by Lepak et al. (2006), the basic principles in this area of research is that by investigating a bundle or system of HRM practices, the influence of HRM practices on both organizations' and employees' perspectives are most comprehended. There is no uniform definition nor has anyone consistently named High Performance Work Practices HPWPs (Boxall & Macky 2009). According to Godard (2005), Delaney & Goddard (2001) and Appelbaum *et al.* (2000), these HRM practices have been referred to as flexible work practices, alternate work practices and high performance work systems (HPWS) that involve development of innovative work systems enabling and motivating employees to improve, share and apply their knowledge and skills to achieve high performance and by which employees become a source of sustainable competitive advantage (Datta et al. 2005). These systems include practices such as incentive compensation, performance appraisal, training and development, employee participation, selection procedures, promotion from within organization, flexible work arrangements, job design and information sharing (Carlson *et al.* 2006; Datta *et al.* 2005; Pfeffer 1998). There is no consensus on which HRM practices constitutes the 'best' practices but a review of the extant literature on HRM practices has identified five basic practices that will undoubtedly have any kind of effect to the organizational results: selection and recruitment, training, compensation, performance appraisal and job design (Getnet *et al.* 2014; Babu & Reddy 2013; Beh & Loo 2013; Jehanzeb *et al.* 2013; Mohyin *et al.* 2012; Ikramullah *et al.* 2011; Mendelson *et al.* 2011; Osman *et al.* 2011; Shipton *et al.* 2005; Laursen & Foss 2003).

### **Theoretical Framework and Hypothesis Development**

In HRM literature, universalistic approach is considered as the simplest form of theoretical model, which seeks for "best practices" and infers that organizations will be better off if they recognize and adopt "best practices" in the way they manage employees (Boxall & Purcell 2000). By adopting them, it will definitely contribute to the improved organizational performance, enhanced employee attitudes and behaviours, reduction in absenteeism and turnover, increased knowledge and skills, thus result in higher productivity, better quality, efficiency and profitability (Beh & Loo 2013; Marchington & Wilkinson 2008;). As a result, an organization requires to duplicate and carry out these best practices in order to have good human resource practices. Universalistic scholars postulated that certain HRM practices are superior to others (Rose & Kumar 2006), and organizations that implement these practices will do better than their competitors. Studies conducted by Beh and Loo (2013) and Huselid (1995) represent the "universalistic" approach to HRM research. Researchers who support universalistic approach argue that through the use of some best practices, organizations will result in increased financial performance irrespective of the industry size or its business strategy (Pfeffer 2001; Bamberger & Meshoulam 2000). Universalistic perspective posits that HRM practices increase employee motivation and as a result, improve productivity, efficiency, innovation and organizational performance (Dyer & Reeves 2003). Thus, this study proposes the conceptual framework as shown in Figure 1 and the following are hypothesized.

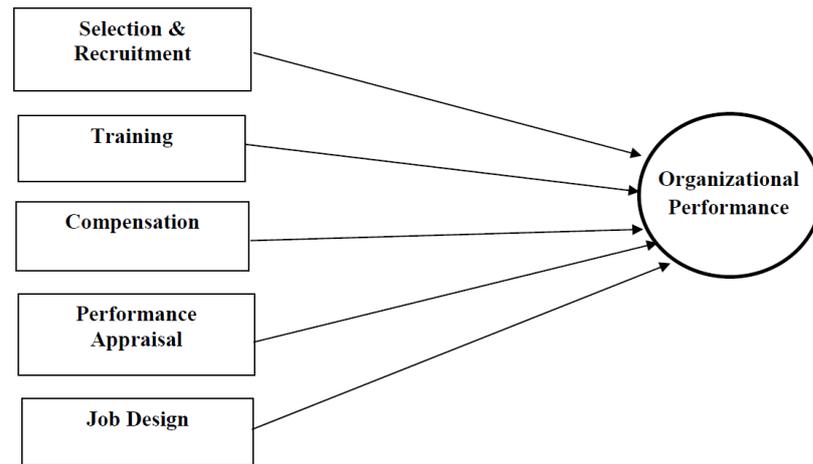


Figure 1: Conceptual Model showing the relationship between HRM practices and organizational performance

H1: HRM practice (selection & recruitment) will be positively related to organizational performance

H2: HRM practice (training) will be positively related to organizational performance

H3: HRM practice (compensation) will be positively related to organizational performance

H4: HRM practice (performance appraisal) will be positively related to organizational performance

H5: HRM practice (job design) will be positively related to organizational performance

### Methodology

The study was conducted on selected construction organizations who are registered with CIDB at the category of Grade 7 and are located at two main regions, namely City of Kuala Lumpur and the state of Selangor in Malaysia. The sample size of this research was 205 respondents (technical executive level and above) after excluding the missing cases, which represented a 58% response. The method used for this research was a descriptive correlational study whereby the self-administered questionnaire was adopted as the instrument to collect data from the respondents of this research. For the purpose of this study, a structured questionnaire consisting of 37 questions was designed to collect data. It was divided into two sections and was used to collect primary data from employees. Section one consisted of 6 questions regarding the demographic characteristics of the respondents such as age, gender, designation, marital status, education and working experience while section two comprised of 31 questions designed to test employees' perceptions about HRM practices such as Selection and Recruitment, Training, Performance Appraisal, Compensation and Job Design on organizational outcomes (Performance)

The questionnaire was designed by adapting and integrating measurement scales developed by prior researches (Darkoh 2014; Beh & Loo 2013; Chin 2012; Daoanis 2012; Ojambati et al. 2012; Seidu 2011; Pamulu 2010; Le 2009; Ballot et al. 2006). A five point Likert scale ranging from 1 = strongly disagree to 5 strongly agree or 1 = very dissatisfied to 5 very satisfied, has been used in the second section of the questionnaire in order to analyse data. The structural equation (SEM) analysis using Partial Least Square (PLS) Smart Software Version 2.0 was used to analyze the main sample data based on the characteristics of the population in order to examine the constructs of the developed model. The PLS-SEM applies a two-step process that comprises separate assessments of the measurement model and the structural model. The initial step is to evaluate the measures' reliability and validity according to some criteria related with

formative and reflective measurement model specification. Following the measurement model has been validated successfully, the structural model is examined by using the coefficient of determination R-squared value and the path coefficients.

### **Findings**

The demographic variables revealed that majority of the respondents were male (76.7%). Based on the analysis also, majority of the respondents (60.3%) were married while only 37.9% of the respondents were still single. The findings also showed that about 45.1% of the respondents are degree holders; 31.6% had college and university diploma, 10.2% had SPM secondary school qualification, 4.4% were with post-graduate qualification, 5.3% had attained professional qualifications and the remaining lowest group of respondents are STPM holders, which consists of 1.9% only. The age of the respondents ranging from 21 to 30 years old consisted of 41.5% of them, 34.1% ranged between 31 to 40, 13.2% ranged between 41 -50, 0.5% below 21 years and 10.2 % ranged above 50 years old. In addition to that, for designation, there were 37.9% of respondents at executive level and 61.7% respondents at manager level. The respondents who participated in the survey were full time construction professional employees. About 38.5% of them had more than 10 years of working experience that forms the highest group, 27.8% with 1-3 years of experience, 15.6% with 4-6 years of experience, 11.2% with 7-9 years of experience and finally 5.9 % with less than a year of experience.

### **Measurement Model**

It is important to check the measurement model before testing the hypotheses. The assessment of the accuracy of the measurement model is to ensure that the model is fit. Likewise, the purpose of the measurement model analysis is to ensure that the measures are valid and that they adequately reflect the theoretical constructs underlying. Therefore, some indicators (CS2, SR3, SR4 and SR6) were deleted in order to ensure the model is fit and appropriate.

### **Outer Model Review**

Outer model assessment (Measurement models) can be divided into three criteria. There are the outer models of convergent validity, assessment of discriminant validity and composite reliability (Ghozali 2008). The outer test models for independent variables are Selection and Recruitment, Performance Appraisal, Training, Job Design, and Compensation and the dependent variable is organizational performance as shown in Table 1.

To check convergent validity, each latent variable's Average Variance Extracted (AVE) is evaluated. It is important that the entire construct indicators meet the value of convergent validity with load factor greater than 0.5. From Table 1, it was found that all of the AVE values were greater than the acceptable threshold of 0.5, so convergent validity has been confirmed. It can be concluded that all data provided are valid and fit for the current research model. The values of the composite reliability for this current research variables were above 0.7, as processed by PLS output. Moreover, the Variance Inflation Factor (VIF) for Selection and Recruitment, Performance Appraisal, Training, Job Design and Compensation were 1.526, 1.808, 1.582, 1.878, and 1.874 respectively.

Generally, it is convinced that any VIF values exceeds 5 implies a potential problem of multicollinearity (Hair *et al.* 2010). Hence, the result in Table 1 shows that multicollinearity does not reduce the reliability of the model and the variables are completely reliable in this study.

Table 1: Reliability of constructs

Variables	AVE	Composite Reliability	R Square	Cronbach's Alpha	VIF
CS	0.552	0.859		0.794	1.874
JD	0.704	0.922		0.893	1.878
OP	0.685	0.915	0.454	0.884	NIL
PA	0.579	0.870		0.818	1.808
SR	0.555	0.789		0.607	1.526
TD	0.689	0.898		0.873	1.582

*Details: SR: Selection and Recruitment TD: Training JD: Job Design  
 PA: Performance Appraisal CS: Compensation OP: Organizational Performance*

Loading cross-correlation values in each case of the variables are presented in Table 2. The cross-loading are usually the first approach to assess the discriminant validity of the indicators. In particular, the outer loading of an indicator on its associated construct should be greater than any of its cross-loading (i.e., its correlation) on other constructs, which can be seen from Table 2 that the loadings always exceed the cross-loadings, thus in this research, the analysis of cross-loadings posits that the discriminant validity has been confirmed.

Table 3 shows that the second approach of Fornell-Larcker criterion (Hair *et al.* 2016) for evaluating the discriminant validity was also achieved because the Square Root AVE of each construct is greater than 0.5. In addition to the above, the results also showed that all variables have the Square Root of AVE values, which are greater than the value of the other constructs.

Therefore, we can conclude that the research model has met the criteria for the partial test-Least Square Models with the outer dimensions (measurement model).

Table 2: Cross loadings

	CS	JD	OP	PA	SR	TD
CS1	<b>0.714412</b>	0.315708	0.431363	0.375842	0.172763	0.256057
CS3	<b>0.784501</b>	0.291288	0.401467	0.365497	0.239599	0.43977
CS4	<b>0.805315</b>	0.251858	0.430008	0.343958	0.242805	0.367897
CS5	<b>0.787605</b>	0.349738	0.408012	0.381228	0.369066	0.368002
CS6	<b>0.602503</b>	0.414242	0.29167	0.30557	0.20067	0.35525
JD1	0.401525	<b>0.824999</b>	0.472992	0.550247	0.386939	0.326724
JD2	0.314383	<b>0.857223</b>	0.487211	0.546635	0.437823	0.312174
JD3	0.288615	<b>0.86624</b>	0.42578	0.479847	0.271814	0.213778
JD4	0.427467	<b>0.894611</b>	0.530184	0.530724	0.324011	0.267244
JD5	0.338254	<b>0.743255</b>	0.509508	0.392789	0.284775	0.19904
OP1	0.481294	0.353977	<b>0.748482</b>	0.374267	0.243812	0.338611
OP2	0.476789	0.544328	<b>0.819191</b>	0.434491	0.299267	0.285645
OP3	0.367075	0.478161	<b>0.858596</b>	0.399763	0.264569	0.194283
OP4	0.404513	0.48834	<b>0.854978</b>	0.392346	0.39137	0.256824
OP5	0.474857	0.524427	<b>0.851725</b>	0.422732	0.375702	0.357384
PA1	0.236441	0.576317	0.394549	<b>0.70928</b>	0.417984	0.295679
PA2	0.381989	0.475137	0.396572	<b>0.847006</b>	0.341843	0.421627
PA3	0.378245	0.442819	0.356097	<b>0.828747</b>	0.338224	0.422359
PA4	0.303124	0.260038	0.164192	<b>0.623391</b>	0.192714	0.304804
PA5	0.49138	0.43358	0.445026	<b>0.767109</b>	0.31126	0.268249
SR1	0.254339	0.429463	0.295043	0.330635	<b>0.752629</b>	0.159487
SR2	0.183379	0.257267	0.218807	0.231559	<b>0.746967</b>	0.207887
SR5	0.280451	0.221413	0.323266	0.382897	<b>0.735743</b>	0.396135
TD1	0.405493	0.367705	0.385476	0.450428	0.414458	<b>0.876034</b>
TD2	0.338495	0.059056	0.117768	0.258314	0.163689	<b>0.824227</b>
TD3	0.473032	0.287014	0.313067	0.378053	0.256414	<b>0.866636</b>
TD4	0.263629	0.047262	0.08269	0.240337	0.151036	<b>0.749252</b>

Table 3: Construct Correlations (Diagonal Elements are Square Roots of the AVE)

	CS	JD	OP	PA	SR	TD
CS	<b>0.743</b>					
JD	0.426	<b>0.838</b>				
OP	0.534	0.583	<b>0.827</b>			
PA	0.478	0.597	0.490	<b>0.760</b>		
SR	0.330	0.408	0.384	0.436	<b>0.745</b>	
TD	0.476	0.315	0.348	0.445	0.353	<b>0.830</b>

**Structural Model**

The validity of the structural model is evaluated using the coefficient of determination (R<sup>2</sup>) and the path coefficients. R-square is the coefficient of determination in the endogenous constructs. Chin (1998) explained that when the value of R square is 0.67, it is strong, 0.33 is moderate and 0.19 is weak while Hair et al. (2010) stated 0.75 as very strong, 0.5 as strong,

and 0.25 as weak. It can be noted that the model is strong enough, in which R-squared value of the dependent variable (organizational performance) is 0.454.

The structural model are validated through path coefficients for hypothesis testing between variables. The test results of the structural model from the hypothesis 1000 bootstrapping obtained using statistical software Smart PLS 2.0 are shown in Table 4. The diagram of the T-statistic is based on the output value generated by Smart PLS software version 2.0. Table 4 shows all hypotheses, H1 to H5 and its t-statistic values. Hair *et al.* (2011) stated that for one-tailed test, if the T value is larger than 1.645 ( $p < 0.05$ ) or if the T value is greater than 2.33 ( $p < 0.01$ ), and when the T value is greater than 1.96 ( $p < 0.025$ ) or if the T value is greater than 2.58 ( $p < 0.005$ ), they are significant. Based on the results, all hypotheses H1, H3, and H5 are supported except for hypotheses H2 and H4.

Table 4: Path coefficients for hypothesis testing between variables

Hypothesis	Beta	Standard Error	T Statistics	Decision
1 SR -> OP	0.095	0.055	1.711	<b>supported</b>
2 TD -> OP	0.021	0.044	0.480	not supported
3 CS -> OP	0.301	0.059	5.025	<b>supported</b>
4 PA -> OP	0.080	0.040	1.317	not supported
5 JD -> OP	0.361	0.060	6.157	<b>supported</b>

### Discussion and Conclusion

The conceptual framework used for this research appeared to be a reasonable model considering the predictors variables in the model being able to explain about 50% of variance in the construction organizations' performance. The results of testing hypotheses are partially consistent with prior studies conducted by Beh and Loo (2013) and Osman *et al.* (2011) as the SmartPLS path model did not fully support the research data, in which there are only three predictors were found to be of significance in explaining the organizational performance in Malaysian construction context. Nevertheless, the findings of the research provide a good platform for future studies to consider the significant contributors as their main components of research on HRM in the construction field.

### Limitation and recommendation

As the study is limited to construction organizations that are based in the Klang Valley and the type of organization selected was only those registered with CIDB Grade 7 organizations, the research participants were not drawn from a large population throughout Malaysia. Hence, there are possibilities that the sampling method may have limited the generalizability of the findings in Malaysian context. Future research shall ensure reliability and validity of the data are equally collected from all the regions in Malaysia in order to generalize the results to a larger population.

### Implication

The results from this study offer useful insight for the future development of an effective HRM program for Malaysian construction organizations. It is expected that one can learn about the critical variables for efficient organizational performance application, particularly in Malaysian construction context. Working with this knowledge, the HR managers or professional development leaders can examine the success of HRM practices that are currently implemented within the construction organizations, find solution and make change of currently used HRM

practices. Thus, the results of this research enable HR managers or practitioners to identify those strategic HRM practices that might be required to achieve the organizational business strategy and goals. Finally, findings of this study can be used to increase the performance of construction organizations and contribute to the economic development in Malaysia.

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# Determinants of Turnover Intention in the Private Universities in Malaysia: A Conceptual Paper

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## Abstract

Turnover intentions in academic institutions has become one of the main concern of the management as surviving and achieving excellence is very much about having the knowledgeable and committed employee. Therefore, it is one of the main and foremost issue for a management of higher education institution to give important. There are many factors that influence an academicians to have turnover intentions. Hence, this study's focus was to investigate the relationship between role ambiguity, work-overload, work family conflict, co-workers warmth, co-workers competence and turnover intentions. The variables studied in this paper were analyse from a research framework. The finding of this study has been discussed on role ambiguity, work-overload, work family conflict, co-workers warmth, co-workers competence and turnover intentions. Conclusion has been drawn from the support of literature that states that the variables influences on turnover intentions. This paper's finding provides valuable guidance for researcher and practitioners to overcome and improve the current mechanism to reduce turnover intentions. The research has also found few new paths for thinking on how to manage employees that having turnover intentions in any organizations.

**Keywords:** Role Ambiguity, Work-Overload and Work-Family Conflict, Co-workers' Warmth and Co-worker's Competence, Turnover Intentions

## Introduction

Turnover of academicians is one of the main and foremost issue the management of higher education institution should emphasis on. Sustaining in the education industry with on-going development in research and teaching is one of the top priority of any private higher education institution and to do so retaining the academic staff is the key to achieve the mission. As the options to leave the current institution are in the hands of the academicians due the number of private higher institutions keep increasing from year to year. It is the utmost asset of an education intuition is to have talented academicians and to sustain them. Furthermore, losing talented academicians is the most damaging and influencing factors in reduction of research output and the image of an institution as higher education due to the rank of a university lies on the hands of knowledgeable and committed academics [1].

The establishment of Private Higher Educational Institutions Act 1996, Act 555 "Prior approval of the Minister shall be obtained for the establishment of a private higher educational institution with the status of a University or University College or a branch campus thereof or a branch campus of a foreign University or University College" many private higher education institution existed in Malaysia but only after the announcement of Private Higher Educational

Institutions Bill, National Council on Higher Education Bill and National Accreditation Board Bill by Malaysian Government whereby the PHEIs can confer their own degree, the education industry in Malaysia has grown rapidly since then (Ministry of Education (MOE), 2015). In early 2017, there were 73 private universities (inclusive the branch campus), 37 private university-colleges and 382 private colleges in Malaysia registered under the Malaysian Qualifications Register (MQA, 2017). All these private higher education institutions offer varies degrees from certificates to postgraduate degrees.

Table 1 below shows the total number of academic staff according to institutions and year from 2012 to 2015. It is clearly stated that in 2013 the total academician in private HEIs is 24,476 which increased rapidly in numbers to 36,185 academic staff. This can be relating back to the rapid growth of private higher education industries as mentioned above. In 2015, the number of academician drop from 36,185 to 34,750 in comparison to other HEIs category the number is very visible for private HEIs. This clears shows that turnover among private HEIs academician is rather high comparing to other HEIs category.

Table 1: Number academic staff in Malaysia

<b>HEIs Category</b>	2012	2013	2014	2015
IPTA	29,769	32,516	31,917	31,877
<b>IPTS</b>	<b>No record</b>	<b>24,476</b>	<b>36,185</b>	<b>34,750</b>
Politeknik	7,306	7,256	7,160	7,391
Kolej Komuniti	2,751	2,816	2,727	2,696

Source: Institusi Pendidikan Tinggi.

As a whole, turnover intentions is considered one of important element that need to be given importance too to sustain in the education industry. The aim of this study is to identify on whether the stressors and relationship with co-workers has any contribution to turnover intention.

Turnover intentions spell catastrophe for most of the organizations due to the high cost, the actual time wasted in recruitment of employee and both money and time spent in training and development for new staff. Retention and talent development in an organization can be sustained or maintained when the management team concentrate on turnover intentions rather than the actual turnover as loss of employees involved higher cost [2]. It is estimated that in average an organization considerably bare a cost of 93 to 200 percent over turnover of an employee's annual salary on a specific job [3]. Therefore, turnover has an impactful effect on any organization and it is considered very crucial for management to pay attention in order to avoid loss in terms of financial, resources and time.

This intention to leave can be exploited as an indicator of actual turnover based on the theory of planned behavior [4] where this intention is said to be the most prompt determinants of real behavior [5]. This intention will create a negative influence to an organization as the employee has detached from the commitment to work subsequently resulting the performance of the said employee will deteriorate and pulling down the organization's performance in total. This can also be expressed clearly by using social exchange theory (SET) [6] where employees tend to weigh the potential benefits versus risks of social relationships and decide to abandon or terminate the relationship when risk out rule the benefits.

There is another impacting element that relate to turnover intention, studies have shown that high staff turnover is regularly the outcome of a poor working environment [7], and that relationships with management team and other staff members constitute a standout amongst

the most noteworthy determinants that influencing staff turnover [8] and subsequently, subordinates are influenced by their management team [9]. Role ambiguity, conflict and overload may cause the development of stress symptoms. A review by [10] revealed that a high proportion of academicians have strong desire to leave higher education and or regret choosing an academic career. This has potentially serious implications not only for the individuals themselves, but also for the quality of higher education.

Turnover is an employee's stable move beyond the boundary of the organization [11]. The term turnover intentions is discuss into three specific fundamentals in the cognition withdrawal process example thoughts of quitting the job, the intention to search for a new or different job and then the intention to quit. Turnover of critical employee is considered damaging to the organization in terms of suppression of cost and work interruption [12]. Thus, it has become most studied area [13]. Although the difference in between intention to leave and actual turnover may vary but researchers identify that the intention to leave has more immediate consequence on turnover decision [12].

Turnover intentions are one of the most researched factor by researchers due to the significances of this intentions to an organization in which it lower the efficiency of an organization due to replacement of the employee, loss of talented workforce, loss of organizational funds and loss of experience [14]. As an organization may confront a possible cost due to employee's poor performance and their intentions to leave, it is very much argued that it is important and will surely benefit the organizations to study the factor that affecting employee's dissatisfaction which lead to poor performance and intentions to quit. Furthermore, turnover intentions are also said to be the "strongest cognitive predecessor of (actual) turnover with the great explanatory power" [15].

As turnover intentions has a significant effect on any organization, this study was carried out to identify the influence of stressor factor namely role ambiguity, work-overload and work-family conflict and relationship with co-workers factors namely co-workers' warmth and co-worker's competence in turnover intentions. There has been many research conducted on stressors factors which show the significant relationship between turnover intentions. Role ambiguity and role conflict has a negative correlation between job satisfactions which eventually lead to turnover intentions [16]. Another researcher has also proves that increase in role ambiguity has a positive relationship in turnover intentions ([17]. The constructs of warmth and competence were vastly used when describing an individuals or group and about 80% of this impression developed from this two constructs [18].

There have been many studies conducted to identify the influencing factors to turnover intentions. Many variables were used to determine the factors influencing turnover intentions such as work related identity, personal disaffection, burnout (emotional exhaustion, depersonalization, reduced individual achievement), three dimensions of work engagement (vigor, dedication and absorption) and not only relate to chain of resources and demands, gender differences, job satisfaction, problematic customers [19].

Many researchers have put inputs to study turnover intentions by combining variables to understand the factors that most influence the turnover intentions. While intentions are a subsequent effect of behaviour the actually determinant of such intentions is still unknown [20]. Therefore, this research aims to provide an understanding on the ways to overcome the turnover intentions and an idea to employers on how to overcome with possible remedies to avoid turnover intentions. What are the factors influences turnover intentions among academicians towards private universities in Malaysia?

## Literature Reviews

### Turnover Intention (TI)

Turnover intentions and retention are very important issues that will affect an organizations in many ways. In this context, it is important to cite Andrew Carnegie an industrialist from 19th century who stated that “Take away my people, but leave my factories and soon grass will grow on the factory floors, take away my factories, but leave my people and soon we will have a new and better factory.” This statement clearly state the importance of employee and the sustainability of employees for an organization to grow.

Turnover intention is rarely explained in any reported studies, it is stated that turnover intentions is perhaps attributable to the theory that people identify the term to be self-explanatory [21]. Another researcher has defined turnover intentions into two category which is voluntary and involuntary turnover [22]. Voluntary turnover is when an employee leaves the organization on his on willing and involuntary turnover is when an employer removes the employee from the organization. Turnover cost can be divided into two which are visible and invisible cost [23]. Visible turnover consist of leave capitalization, employment, reference check, security clearance, part-timer, moving cost, training and orientation expenses and invisible cost includes expansion of HR division, loss of production, and informal training.

Turnover intentions is a process that consist of few stages. This process involve psychological factor, cognitive factor and behavioural factor [24]. In first stage, disappointment and dissatisfaction towards the issues occur in an organization cause emotional drawbacks and less interaction towards work commitment, at stage two employee start to think and reasoning which is the main cause of turnover intentions. Many researchers mentioned that turnover intentions as cognitive expression result of turnover whereby the cognitive will change into behaviour which is the stage three factor. At this stage employee will react or express their intentions to leave the job by showing their less commitment, low productivity and most of the time they will be absent to work. Employees normally decide to leave the job on the current work situation, work related issues and alternative that they have on hand. If the outcome is positive for the said employee then turnover will be the result for the decision making process [25].

### Role Ambiguity (RA)

Role ambiguity is a perception that elaborate work related information [26]. An employee must have a clear knowledge of what is expected, the job responsibility, the position, and the rights. Role ambiguity is when an employee does not have any information on what is required or to be done at work. Accordingly to the researcher, lack of information can result from two situations, first the required information does not exist or secondly the information exists but it is not made available for the employee.

Role ambiguity is defined as the presence of absence of clear knowledge of the role an employee is required to complete [27]. Since an employee needs to have a clear picture of what he or she need to do, the not clear direction on one’s role will lead to job related stress and directly affect the job satisfaction and subsequently lead to turnover intentions. Another researcher stated that role ambiguity is an opinion or perception that an employee is lacking of required information to get the assigned work done which lead to the employee feeling stranded. This uncertainty of an employee about his or her role is role ambiguity [28].

Many studies was conducted on turnover intentions that caused by few levels of job stress which is one of the reason on why people leave their jobs [29]. Somehow, study on role ambiguity by itself still remains comparatively absent from theoretical models of turnover and empirical tests. For this reason, role ambiguity can be studied to better understand the effect of factor in employee’s turnover intentions [31]. A study conducted by Kevin Hill, (2015) revealed that role ambiguity is an antecedent of intention to quit over the time with mediated

by increase in relationship conflict which in other word can be mentioned is work family conflict. In relation to the mentioned literature reviews, role ambiguity or in other word role clarity can lead to low turnover intentions. One who has a better understanding on what is required out of him at work will be more content in comparison with one who is not clear of what is required out of him at work which eventually lead him to have turnover intentions. In line with past literature reviews on role clarity, the first proposition assumes that:

### **Work-overload (WO)**

A study that was conducted in UK shown that majority of employees was not happy with their current working hours whereby they were required to work extra hours and overloaded work while concurrently meet the target and deadlines. Work overload was also defined as having too many tasks to be completed in too little time [31].

The first and foremost effect of work overload is that it is the predictor of burnout and work family conflict [32]. Work overload is an interface between the real work request and the emotional draining accumulated from the struggle to meet the demand [33]. The emotional draining turn into bigger or greater when the employee sees or feel that the work load is greater than their capabilities.

Work overload is the most important source of work related stress which leads to turnover intentions [34]. This situation of work overload has been a major issue or problem in an organizations total productivity [35]. The impact of stressors (work-load) to turnover intentions has an indirect relationship. The stressors factor has a direct impact on management support which effect the job satisfaction, job commitment and job stress which then lead to turnover intentions. This null relationship from work-overload to turnover intentions has been shown in past research by [36] whereby the indirect stressors effecting one's health and indirectly contributing to turnover intentions [37].

In most of the research conducted, work overload has positive relationship with turnover intentions. The current study shows that there is a negative significant relationship between work-overload and turnover intentions. The possibilities of this results may derived from the majority of participants who falls under the age group of 36 years to 45 years, which carries the total percentage of 55.5% from 189 participants. The selection, optimization and compensation (SOC) theory is one of the mechanisms that administer the general functions of development which is up keeping, progression and compensating for loss [38]. Selection includes confining action on area one feels at ease, optimization assumes that one attempts to achieve the higher level of functioning and compensations refer to how one attain the goal accordingly to their capabilities. This mechanisms come into action throughout everyone's life but particularly later of their career or as we age. Whereby career growth is very much important and addition work is considered as a possibilities to grow. In line with the above discussed literature reviews, the second proposition assumes that:

### **Work-family conflict (WFC)**

It is estimated that 52% of employees going thru work-to-family conflict [39]. The minute work and family factors interfere with one another, there will be damaging outcome to an individual's mental state, health, behaviors and the individual's performance at work and the family [40]. Therefore it is significant to understand the factors that contributing to work-family conflict to significantly reduce the cost to the specific individual, management and family. Work-family conflict is also define as the collision in between pressures and demands at work and pressures and demands in family [41].

The work-family conflict can be divided into three dimensions which is time based dimensions, strain based dimensions and behavior based dimensions [42]. Time base dimensions indicating the excessive usage of time or the hours spent at work, the strain based dimensions is all the

stress factors comprising anxiety, fatigue, depression and irritability caused by work or at work and the third is the behavior based dimensions with consist of self-confidence, emotional stability, aggressiveness and objectiveness both in the family and at work. Understanding the work-family conflict and solving this issue is very important as it will help the employee to achieve balance in at work and family commitments [43].

The higher the job responsibilities of an employee, the greater the level of conflict that can be experience by an individual at family and it is vice-versa [44]. Conversely, conflict does not only occur from work aspects to family aspects as it depends on once involvement in both the aspects. In comparison to the above discussed review, the result is in line with the researcher's outcome. Thus, the third proposition is formulated based on majority of past research.

### **Co-workers' Warmth (CWW)**

The most important factors that lead to social assessments on other individuals or a groups of people are identified as warmth and competence [45]. This factors of warmth and competence are so dominant that over 75% of people intent to fall under the warmth and competence factors when the describe people [46].

Individuals who are warmth naturally known as compassionate and considerate person with a very strong ethics and they normally cares and co-operate with others. People has the understanding that warmth is naturally understood as social and moral behaviours [47]. Warmth is also includes teamwork among the individuals and that it is mostly collaborated with servicing or caring field [48].

Warmth and competence were extensively used when describing ones emotions about a person and a group [18]. This author has also describe warmth person as a person with good nature and do not make others feel him as a threat and they will somehow try to build a relationship with others. Almost 80% of people's descriptions on individual falls under this two factors. Warmth and competence factors contribute or influence one's behaviour and different emotions [45]. Based on the above-mentioned literature reviews, the current research assumes the following proposition.

### **Co-workers' Competence (CWC)**

Competence has a different view or different understanding in different countries [49]. Competence is a qualities that is required by someone to complete an assigned. Individual or group of people who are competent aim for high level of achievement and normally known as self-determining with the capacity to perform and capable to lead and control others, in other word competence is a measurement to be used on person who are independent, individualistic and have the possibility to dominate and control their own situation [46].

Competent person or individuals are more individualistic and job-orientated individual [18]. Competent person will do things independently and normally has the tendency of controlling the environment around them, they are capable of performing at the peak and will lead and control the others [46]. Competence was explained as familiarity, expertise, capabilities, and other individualities that is required to complete a task efficiently [50]. Competence were categorized into four aspects of professional, self-competence, social, and methodological [51]. Professional in this context refer to abilities and information an employee has to complete a task and the capability to detect the room for advancement in the organization. [52]. Self-competence refers to capability of an individual to self-analyze and develop their standards and behaviors to the direction of their work improvement developed [53]. Social is familiarity, information, and skill of an employee in coping with the many social interaction. In comparison to the above discussed literature reviews, the result is in line with the researcher's outcome, therefore the fifty proposition assumes that

### Research Framework

The research framework is a conceptual model of a theory with few or several predictors which has identified to be significant on one identified research problem [54]. This study was conducted to investigate the relationship in between the independent variables of role ambiguity, work-overload, work family conflict, co-workers warmth, co-workers competence and dependent variables of turnover intentions. A comprehensive framework was developed based on the support of literature reviews. The framework comprises of five independent variables which will be tested on the relationship or the influencing level towards dependent variable of turnover intentions as shown in Figure 1.

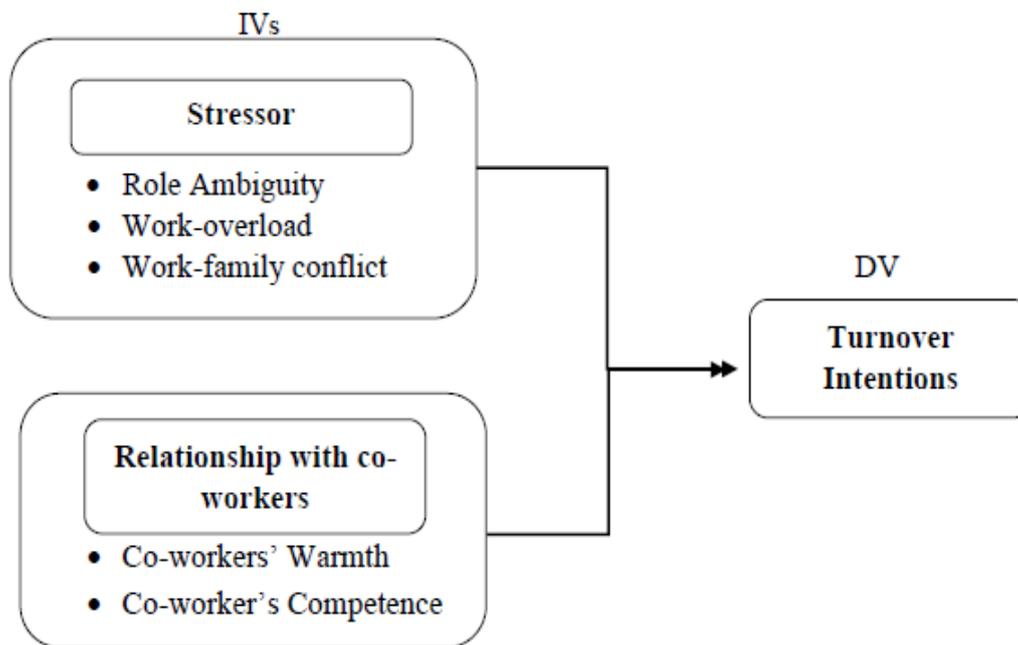


Figure 1: Research Framework

### Conclusions

The turnover intentions has a very significant effect on organization's cost. There are many negative consequences due to turnover intentions for any organization. Having high skilled employees leaving the organizations may have a very disrupting consequences or implications. For an example impaired organizational functioning, poor delivery in service and lack of systematic administration or delay in administrative task. Losing high skilled employees may result in increased in hiring cost and re-training employees [55].

Turnover rate in a company is measure of how a corporate business is fostering positive culture that includes recognition, leadership opportunities, maintaining a good relationship and instilling motivation to work. The work demand from the higher private institution may also be an inducing factor. The results of this study highlighted the role ambiguity, work overload, work-family conflict, co-worker warmth and co-worker competence, were important factors to understand turnover intentions among academicians in private higher education institutions. Therefore, it is encourage for the management to explore these factors to have a better organizational skill to overcome turnover intentions issues.

This study also indicates that it is may be useful to other work institution for example, managers and senior officials, professional's occupations, associate professionals and technical

occupations, administrative and secretarial occupations, and sales and customer service occupations to recognize the paramount for preventing high turnover in any organization.

### **Implications**

The present study's aim was to find out on whether there is a significant relationship between stressors namely role ambiguity, work-overload and work-family conflict to turnover intentions and to find out on whether there is a relationship with co-workers namely co-workers' warmth and co-worker's competence influence turnover intentions among academicians towards their institution. Many previous research was conducted in various industries by researchers to understand on what actually determine the turnover intentions by using possible antecedents of intentions to leave [37]. For example factors like job satisfaction and organizational commitment were used to study the turnover intentions [56]. The current study has revealed that role ambiguity, work overload, work-family conflict, co-worker warmth, and co-worker competence could be used as one of the variables to relate to employees' turnover intentions. One's behaviour is always driven by their perceptions or insight on a situation [57].

These variables are among other factors that seems to be normally related to turnover intentions. Therefore, the current study was extended to academic industry to measure the reliability of three stressors variables such as role ambiguity, work-overload and work-family conflict and two relationship with co-workers variables such as co-workers' warmth and co-worker's competence which influence on the research academically. Furthermore, this study was conducted among academician in one private higher education institution which make rooms for researchers to conduct study on public higher education institution to prove the influences of stressors and relationship with co-worker to turnover intentions. This research would be very much worthy and adds significance to the academic world due to the lack of study among academicians in Malaysia. Theoretically, the findings of the study directing to the management of this private higher education institution that they should give importance to role ambiguity and work-family conflict, co-workers' warmth and co-worker's competence in order to prevent turnover intentions.

This research provide few new paths for thinking on how to manage employees that having turnover intentions in any organizations. Firstly, as the effect of turnover to any organization is very significant the organizational decision makers should re-think on the effect of a decision on employee. So endorsing any policies or decision should be made by considering the implication on long run. For example, decision makers should take into consideration of role ambiguity factor to reduce turnover intentions among employees in a form of more general approach to human resource management. By doing so role ambiguity issue can be somehow overcome and may result in reduce of turnover intentions. Useful intercessions are required to decrease role ambiguity and should be continued by guided past and present research which plays and important role in managerial interventions.

The second variable is work-family conflict. Empirical research has given evidence that work-family conflict interface to turnover intentions. Therefore, management should always ensure on non-work-family conflict occurs and also understand on up to what level of tolerance an academician can accept before the work family conflict occurs. The third and fourth variables are co-worker warmth, and co-worker competence. The study's findings shows that it is very important to have the behaviours and attitudes that is being portrayed at work place as this has a vast impact on co-workers turnover intentions. The findings shows that having a warmth and competence employees is actually influencing ones turnover intentions. Therefore, employers or management may or should pay attention to this two variables during hiring process. Management may well benefit from the use of structured and unstructured interviews to identify the warmth or competence employees besides seeing the academic achievements.

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# Human Resource Management Practices and Their Impact on Construction Organizational Performance

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## Abstract

This paper examines the extent to which human resource management practices have direct impacts on organizational performance from various critical perspectives. Comparing with many other industries which depend on new emerging technologies in order to improve their performances, construction industry is still a low-tech and labour intensive sector; thus, human capital is the most imperative and usually the costliest resource deployed within it. As a result, HR practitioners need to constantly look out for ways to maximize the use of human resources for enhancing organizational performance. Several previous researches on this issue have been discussed in this paper to enable authors to develop a conceptual framework that explains the relationship between human resource management practices and organizational performance.

**Keywords:** Human Resource Management (HRM) Practices, Organizational Performance, Construction Organization.

## Introduction

Construction organizations have been facing intensity of competition that increases day by day. Comparing with many other industries which depend on new emerging technologies in order to improve their performances, construction industry is still a low-tech and labour-intensive sector; thus, human capital is the most imperative and usually the costliest resource deployed within it (Loosemore et al. 2003). As a result, HR practitioners need to constantly look out for ways to maximize the use of human resources for enhancing organizational performance. With the competitive challenges such as globalization and changing nature of work, human resource management considers employees as the most important assets in the organization, which lead to competitive advantage. As such, the HRM practices in contemporary times incline towards improving organizational performance and corporate strategy (Boxall & Purcell 2003; Barney & Wright 1998). Hence, this paper attempts to look into the connection between human resource management practices and organizational performance in construction industry. Therefore, the following research question is used to guide our investigation: To what extent does human resource management practices create impact on organizational performance?

**Literature Review*****Relationship between HRM Practices and Organizational Performance***

The commonly recognized theoretical frameworks used to explain the relationship between human resource management and organizational performance is the high-performance work system proposed by Appelbaum et al. (2000). According to them, the core of a high-performance work system is that an organization empowers non-managerial employees to take part in substantive decisions. The high-performance work systems are said to enhance organizational performance through improving skill, knowledge and abilities of employees. Such HRM activities not only increase employees' motivation but also enable them to leverage their skill, knowledge and abilities for the benefits of organizations (Combs et al. 2006; Datta et al. 2005; Delery & Shaw 2001; Becker & Huselid 1998).

However, these HRM practices require large amount of investments in human capital by means of training, coordination of activities and time for managerial and employee input in spite of which have been acknowledged as being good for both employers and employees. The important value of these practices may be disappeared in the event if the substantial investment in human capital is not offset by the improved efficiency and effectiveness. Numerous researchers contended that the impact of HRM practices can be even more significant if complementary bundles of HRM practices are implemented together notwithstanding the use of high performance work system can improve an organizational productivity and profits (Subramony 2009; Storey 2007; Hoque 1999).

The impact of HRM practices on organizational performance has become an important issue over the past few decades. There has been many researches and studies conducted to investigate the relationship between HRM practices and performance which have shown that high performance work systems have a significant effects on performance of organizations (Lee et al. 2012; Kim & Wright 2011; Armstrong et al. 2010; Wright et al. 2005; Bartel 2004; Kaman et al. 2001; Huselid 1995), whereas other researchers have concentrated their studies on the effect of certain HRM practice on organizational outcomes (Chuang & Liao 2010; Gittel et al. 2010; Huselid 1995).

Some researchers have also operationalized HRM practices in various ways, for instance, they have focused their research only on one single or individual HR practice such as performance management staffing, performance appraisal, compensation, training and development, profit-sharing schemes and flexibility policies (Kumari 2015; Daoanis 2012; Farndale et al. 2011; Thang et al. 2010; Sweins & Kalmi 2008; Benson 2006; Currall et al. 2005; Eaton 2003; Terpstra & Rozell 1993), while on the contrary, some scholars have considered HRM practices as control systems, thus have paid their attention on studies of compensation, incentive and reward systems (Koch & McGrath 1996; Snell 1992). As stated by Ehrenberg & Milkovitch (1987), compensation has been defined as the core of the employment relationship, which is the most extensively studied HR practice (De Cieri & Kramar 2008; Balkin & Comez-Mejia 1990).

Studies conducted by Guthrie (2001) and Huselid (1995) integrating few HRM practices have also confirmed that bundles of HRM practices were positively and significantly associated with employee turnover and organizational performance, whereas other researchers have discovered that no all bundles of HRM practices have equally direct causal association with the organizational performance (Godard 2005) even though prior studies have established a strong positive linkage between comprehensive HRM bundles and organizational performance (Paul & Anantharaman 2003).

Furthermore, there was also no agreement concerning the continuing methodological problems in confirming direct causal relationships between HRM practices and organizational performance (Boxall and Macky 2009; Godard 2005). Many researchers have examined the impact of specific HRM practices on organizational performance (Chuang & Liao 2010; Gittell et al. 2010; Delaney & Huselid 1996) or the comprehensive high-performance work systems (Fu et al. 2013; Jiang et al. 2012; Subramony 2009; Guthrie 2001; Huselid et al. 1997). Teseema and Soeters (2006) have also tested the relationship between perceived employee performance and eight HRM practices that involved selection and recruitment, placement, training, compensation, performance appraisal, promotion, grievance procedure and pension or social security. These research works have shown a significant positive relationship between the best HRM practices and organizational outcomes such as financial performance, market value, productivity etc. but there is no consensus on which combination of HRM practices is able to enhance organizational performance (Guest 2011; Chuang & Liao 2010).

A substantial body of research has also documented a comparative positive relationship between HRM practices and different measures of organizational performance (Chuang & Liao 2010; Gittell et al. 2010; Liao et al. 2009; Sun et al. 2007; Huselid 1995). Recently, Arashpour and Arashpour (2010) reported that financial factors such as remuneration, incentive payments, retiring pension and overtime payments together with psycho-social factors namely employee empowerment, safety and health conditions and work satisfaction influenced the human resource productivity leading to better performance in European construction organizations. According to Dainty et al. (2005), team leadership was identified to be the most influential factor for projects' performance in United Kingdom. Furthermore, for studies conducted on HRM practices in construction of Asian countries' context such as China and Singapore, it was found that leadership of construction managers played an important role in the success of a project (Toor & Ogulana 2010; Limsila & Ogulana 2008).

Other practices such as job design, training and compensation were also found to have immediate association with the performance variables (Osman et al. 2011) such as employee retention, productivity, quality, services and operating expenses. In contrast, Tabassi and Bakar (2009) examined HRM in Iranian construction projects, and it was revealed that employee training and motivation are two main obstacles to adopt HRM efficiently in Iran context, and have suggested to use both long term and short-term training at places such as training centres instead of on the job training to enhance the construction organizational performance.

Paul and Anantharaman (2003) discovered that every single HRM practice measured in the study has indication of indirect effect on the organizational performance in terms of the operational and financial aspects, while the results have also shown that there is none single HRM practice has immediate causal relationship with financial performance of the organization.

To summarize, there is no consensus on which HRM practices constitutes the 'best' practices but a review of the extant literature on HRM practices has identified five basic practices that will undoubtedly have any kind of effect to the organizational results: selection and recruitment (Mendelson et al. 2011; Shipton et al. 2005), training (Babu & Reddy 2013; Jehanzeb et al. 2013; Shipton et al. 2005; Laursen & Foss 2003), compensation (Mohyin et al. 2012; Laursen & Foss 2003), performance appraisal (Getnet et al. 2014; Ikramullah et al. 2011; Shipton et al. 2005) and job design (Mohyin et al. 2012; Osman et al 2011).

### ***Selection and Recruitment***

Recruitment and selection is the primary evaluation and assessment process of hiring employee (Lynch & Smith 2010; Cunningham 1999). Recruitment can be defined as the process of finding and attracting individuals who might join an organization and urging them to apply for existing or expected employment opportunities (Dessler 2007). It is also the development of a pool of qualified and talented applicants as per the human resource plan. In this regard, it can be further described as the process of finding, identifying and attracting qualified candidates. Efforts are made to inform the job candidates thoroughly pertaining to the qualifications required to do their jobs in this process as well as the career opportunities that the organization can offer its employees. In construction industry, recruitment can be done either within or outside an organization (Loosemore et al. 2003). Generally, recruitment for construction projects is of an external nature and mostly depends on competitive tendering processes for specialized work packages by subcontractors. Majority of the internal recruitments are playing the roles of administrative and managerial support, in spite of the fact that with the development of part-time contracts among professional employees, the difference between internal and external employees is becoming more confused. Shortlisting and identifying internal prospective employees is usually facilitated by simple job postings in newsletters or on bulletin boards, and so forth. This study will mainly focus on internal recruitment.

Selection refers to the process of deciding on potential candidates who have pertinent capability to fill the current or anticipated employment opportunities (Dessler 2007). According to Vlachos (2008), during this process, the correct individual who is selected for the required knowledge and qualifications will be assigned to the suitable task position to reduce the costs and maximize the benefits through their ability, skill and excellence. In Cho et al.'s (2006) study, they found that there is positive relationship within human resource management practices and acquisition activities such as source of recruitment, systematic interview, pre-employment test and biographical information blank for better financial performance of an organization.

Chand & Katou (2007) proved that recruitment and selection which form part of the HRM system is highly related with the profitability and proposed that management of the organization must concentrate on these HRM practices (recruitment and selection) contributing to an increased organizational profit. Thus, organizations are urged to attract suitable and qualified individuals for growth and survival resulting in enhancing financial or profit performance. In addition, recruiting and selecting good candidates without training them, or training and developing them without authorizing them to make decisions may result in very little effects while executing the three practices together might have a better effect (Wall & Wood 2005).

### ***Training***

Training can be considered as an investment in organizational human assets which is a very important component in creating the human capital (Tzafrir 2005). Organizations who invest in training programs can make their staff feel indebted to them. Training is important for the employees to perform specific tasks since it requires specific knowledge and skills by which the task is much simpler to do as it is in the advantage of the employee. There is a relatively positive correlation found in the study conducted by Qureshi et al. (2007), in which the researchers revealed that HRM practice, namely training has a significant influence on the employee performance. Training equips workers with the required skills, knowledge and merit for the job function (Kadiresan et al. 2015; Danvila et al. 2009).

Thus, the effect of training can be described in such a way that the organization is keen on investing employees for training and providing them with confidence and intends to rely on them in future, hoping that employees will attempt and give their best at work in a productive and effective way. Therefore, it is important that organizations give an opportunity for employees to acquire knowledge (Bernsen et al. 2009) since comprehensive training and development plans will enhance the capabilities and motivation of their employees and as a result, improve organizational loyalty among employees while enhancing organizational effectiveness (Babu & Reddy 2013; Kyndt et al. 2009). Typically, there are two effective methods of training construction workers that are on-the-job training and off-the-job- training (Smith 2002).

(a) On-the-job training (informal): According to Noe et al. 2000, on-the-job training is accounted for more than 60 per cent of training provision in the construction industry due to its advantages over off-the-job training, in which construction workers are available to deal with problems occurring in the workplace but remaining on project site can make the training appears to be less attractive and important than a day away from the site environment. This training involves job rotation that is used to the learning of technical skills, for example, employees swapping or transferring jobs on site to learn and gain different skills and experiences.

(b) Off-the-job training (formal) consists of classroom lectures, films, and simulation exercises. Classroom lectures are effective way to convey particular information as well as developing technical and problem-solving skills whereas films can be used to expressly show technical skills. Table 2.1 shows a comparison between on and off-the-job training, which indicates the basic differences between these two methods of training.

Table 2.1 Comparison between on and off-the-job training (Tabassi & Bakar 2009)

<b>Variables</b>	<b>On-the-job training</b>	<b>Off-the-job training</b>
<b>Emphasis On:</b>	Getting the job done	Learning basic facts and skills
<b>Ultimate Goal:</b>	Developing “best practices”	“Knowing”
<b>Knowledge:</b>	Dynamic, Situated, Practice-oriented	Static, Decontextualized, General
<b>Topics / Problems:</b>	Arise from and embedded in work situation	Given by curriculum
<b>Scope of Learning:</b>	Individual, Group, Organization	Primarily Individual

However, both formal and informal training development may raise organizational risk due to the fact that individuals may choose to leave the organization for a better opportunity in other prospective organization after completing training. On the other hand, organization that invests in its employees through both technical and non- technical training and development program can expect to have positive effect (Allen et al. 2003) in the aspect to which the organization actually succeeds in improving the attitude, knowledge or skills of its employees. Jayawarna et al. (2007) found that formal training which is more effective than the informal training, has significant relationship with performance. According to Denby (2010), training is a continuous process that is regularly refreshed and renewed as per the needs and requirements of the individuals and where trained employees are encouraged to revisit the training materials.

Training needs may vary from sector to sector or industry to industry thus, nobody can be certain that the specific industry or organization should carry out trainings either quarterly, semi-annually or yearly. Research on HRM practices and performance conducted by Alusa and Kariuki (2015) and Ogedegbe (2014) found that training was not a significant predictor of organizational performance in a state corporation of Kenya and among 201 employees of the Nigeria brewery. Nevertheless, a number of studies have looked at the effect of training on productivity and found positive relationship between training and productivity of an organization (Ballot et al. 2006; Dearden et al. 2006; Conti 2005).

### ***Compensation***

Compensation is an important element of HRM. Researchers frequently recognize compensation as among the most significant factors for potential individuals in considering to accept a job offer, however, it remains unclear to what is the effect that pay has pertaining to retention of the new employee after hiring (Barber & Bretz 2000). This is crucial because the pay satisfaction of workers upon their initial hiring does not certainly imply that they will keep on to be satisfied with their pay in the years to come.

As illustrated by De Cieri and Kramar (2008), compensation system plays a key role in carrying out organizational strategies. The quality of employee's performance and attitude towards customers will be influenced by the way the compensation is offered to the employee, and which is also expected to have effect on employee's ability to be adaptable and learn new skills (Milkovich & Wigdor 1991). De Cieri and Kramar (2008) claimed that attractive and good pay or benefits compared to that of the competitors can confirm that an organization not only attracts but retains its high-quality workers. Employees may compare if the offered compensation are corresponding to the amount of time and effort that they invest in an organization (Ryan & Sagas 2009). Rice et al. (1989) discovered that using the discrepancy theory, employees' satisfaction is a function of what they see their contributions and job requirements are and what they ought to get consequently; this was later affirmed by Chelladurai in 2006.

Working people will be satisfied with their compensation as long as what they are getting commensurate with the time and effort of their contribution, also with connection to what different employees might receive (Altarawmneh and Al-Kilani 2010). However, dissatisfaction can happen if employees realize that their contribution and efforts surpass the rewards in particular pay from the organization (Ryan & Sagas 2009). Shaw et al. (2009) postulated that monetary compensation is always an antecedent of talented employee's turnover intentions.

Nevertheless, Selden and Moynihan (2000) in their study of 33 US state government revealed that high average wages are negatively associated with voluntary turnover. The findings of Chew and Chan's (2008) confirmed that compensation alone is not an employee retention variable in HRM. Abdullah et al. (2009) also discovered that compensation or incentive is unlikely to influence the overall organizational business performance in the private organizations in Malaysia. Despite that, Currall et al. (2005) found that pay satisfaction is highly associated with the intent to quit in a study of public school teachers. It is therefore evident that compensation is an important variable to be included in the present study.

***Performance Appraisal***

Mullins (2002) defines a comprehensive performance appraisal system as the main criteria for evaluating employee performance and ensuring employee productivities are consistent with the organizational business strategy and objectives (De Cieri & Kramar 2008). It indicates employee's potential for career advancement in particular to enhance the performance. Shahzad et al. (2008) stated that to some extent, performance appraisal serves as a formalized process for observing and evaluating employees which is developed to increase employee productivity and performance. It is also the process of monitoring and assessing workers' performance and giving feedback, and is a potentially crucial method for building up a productive and efficient workforce. Performance appraisal, which is a basic element of human resource management has also been used as mechanism for improving employee performance, and has generally been acknowledged as the fundamental human resource management mediation for giving feedback to employees pertaining to their performance (Cummings & Worley 2000) and subsequently, the results of the performance appraisal provide a basis for many HR decisions (Brown & Benson. 2010). Armstrong (2006) explained that performance appraisal system is used as an instrument for anticipating what is expected from the individuals to accomplish the tasks in order to fulfil the objective of the employment to meet new challenges. Through the performance appraisals, an organization can provide feedback to its employees so as to improve organizational performance. According to Chelladurai (2006), the results of employee performance appraisal provide useful insights into the effectiveness of the HR system, the development of employee training needs and effective setting of organizational goals for the employees.

In a study conducted by Kadiresan et al. (2015), Beh and Loo (2013), they found that performance appraisal is one of the human resource management best practices. Kelly et al. (2008) in their research demonstrated that more than 80 percent of the respondents are in craving of the performance appraisal system together with 45 percent respondents highlighted the necessity to improve the performance appraisal system. However, Ji et al. (2013) who studied power electric enterprises have found that performance appraisal did not create employee's satisfaction within the organizations, which in turn resulted in employee dissatisfaction with fairness as well as has negative effect on employee job skills. Thus, the performance appraisal system shall be developed in clarity and fairness that results in employee motivation, satisfaction, increase in performance, and positive discernment towards performance rewards. It is necessary to inform every worker whose attitudes, knowledge and skills should be enhanced so that there can be a considerable change in improving the process of the organization or jobs when carrying out appraisal system to evaluate and assess individual's abilities (Ubeda & Almada 2007).

***Job design***

Job design is the process of determining what tasks and responsibilities to be performed and undertaken by a specific employee that also includes the methods, systems and procedures for the work. Based on Knapp and Mujtaba's (2010) explanation, job design is illustrated as changing the content and procedure of a job in order that an individual's satisfaction, efficiency, and productivity can be improved. Effective job design helps an organization to be more competitive and successful in the marketplace especially in today's dynamic business environment. Properly designed jobs achieve two very important objectives, such as completing the required work in a timely and skilled manner, and inspiring and challenging workers (Borman 2004).

In the past, many scholars have developed various models stressing the significance of unambiguous and clear channels of authority, centralization of decision making, adherence to rules and regulations, and the division of work. However, the recent principle indicates that if jobs are simplified and concentrated on a specific area to the greatest extent possible, maximum work efficiency will be accomplished. The basic idea is that instead of spreading individuals' attention and energy across several more complex tasks, if the workers can perform the same specific jobs repeatedly, they will become much more efficient in handling them. Fredrick Taylor (1911) proposed four principles of scientific management underlying the industrial engineering approach to the job designs below:

1. The work to be done should be scientifically studied and the best method should be determined and employed.
2. Employees appointed for the job should be trained and developed by managers instead of leaving them to develop themselves.
3. Managers and supervisors should work together with employees in order for them to follow the established procedures to do the jobs.
4. The work should be subdivided into small components among employees for maximum simplicity and efficiency, and managers should adopt scientific management approaches on employees and evaluate their performance.

According to Knapp and Mujtaba (2010), many organizations found their productivity improved by few times after implementation of these principles. Harpaz (1990) discovered that an intrinsic reward is likely to motivate and satisfy workers to do their jobs better. Organizations should develop incentive system to motivate their workers which rewards them for the achievement of every day's production and meeting the organizational requirements as described in the guideline. Despite that, there are a few similarities and contrast between the classical and industrial engineering perspectives whereby they jointly share a common view that an employee will perform effectively on a well-structured and repetitive job. But various studies conducted in 1980s have demonstrated that jobs that are designed following classical and scientific management approaches did not generally increase the productivity.

The third approach to the design of work concentrates on the key characteristics of a job, such as autonomy, related conflicts, demands and understanding relations with others at workplace (Shirom 2010; Schaufeli & bakker 2004). Hackman and Odham (1976) proposed five key components work, namely autonomy, skill variety, task identity, task significance and feedback that are useful in making jobs more satisfying for employees which still remains influential for more than around 30 years of time span (Morgeson & Champion 2003). The benefits of job design in boosting employee's productivity and performance have been widely discussed in a few studies (Ali & Aroosiya 2010; Fernando & Ranasinghe 2010).

From the organizational perspective, job design has impact in supporting the individuals' work performance in accomplishing organizational outcomes as it may directly or indirectly affect the way individuals perform their responsibilities and jobs (Ali & Aroosiya 2010). According to Garg and Rastogi (2006), many scholars supported that evidently, setting of a specific target and objective for employee to perform the assigned job can improve organizational performance. It is crucial that job design for construction professionals are clearly defined due to its unique nature of activity, in which a degree of flexibility shall be made so as to overcome the fluctuating demands of projects and in order to suit certain project types or customer requirements, some job functions may also have to be modified, thus before construction personnel take up employment, they should be made known of such job descriptions so that opposition to any future redeployment and retention can be mitigated.

### Conceptual Model

The purpose of this study is to develop a model to show the relationship between human resource management practices and organizational performance. As argued in the earlier discussions, the HRM practices namely selection and recruitment, training, compensation, performance appraisal and job design will not only influence organizational performance, but its impact on performance also varies with the effect of different factors. Based on the literature reviews, it is therefore postulated that HRM practices leads to greater organizational performance. The details are given in Figure 1.

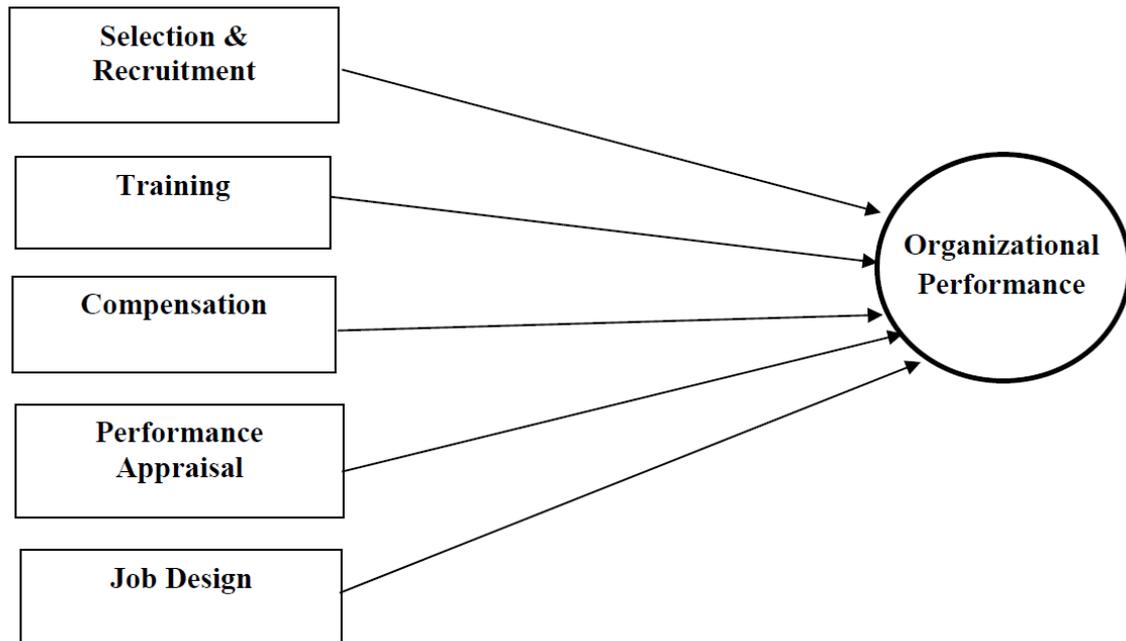


Figure 1: Conceptual Model linking Human Resource Management Practices and Organizational performance

### Conclusion

This paper explored the current literature on human resource management practices and their impact on organizational performance. The conceptualization of human resource management practices is closely linked to organizational performance. The literature reviews show that there are reasonably strong evidences to show that the infusion of 'HRM practices' in organizations promotes better organizational performance. Studies also clearly substantiate the fact that employees will be motivated to try new ideas, develop shared understanding with each other, and carry out changes in organizational activities through effective implementation of HRM practices that are expected to contribute to the improvement in organizational performance. Human resource experts can concentrate on the effective approaches to manage and improve the employee' skills linking to better organizational performance, for instance, both essential and higher-order skills required by construction organizations could be obtained through employee recruitment and selection activities. Conclusively, the best HRM practices not only influences organizational performance, but its impact on performance also varies with the effect of different factors.

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# The Effect of Perceived Value-In-Use in Student Advocacy Behavior of Private Higher Education Institution in Malaysia: A Conceptual Framework

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## **Abstract**

In recent years, there has been a great deal of attention towards customer value creation since the concept was proposed by Prahalad and Ramaswamy (2000) and applied in the Service-Dominant (S-D) Logic (Vargo & Lusch, 2004). Since then, in a student-higher education institution relationship, value co-creation has become an important aspect of building and maintaining relationships. Furthermore, student participation in the co-creation of value and self-embeddedness with the HEI brand are important symbolic outcome especially towards future co-creations, when consumers interact with other consumers in the digital world. In context of higher education institutions (HEIs), students move from one life cycle stage to another, thereby needs and expectations evolves, and when they graduate, it may dissolve. But with service innovations, HEIs have come to realize the importance of both students' functional and symbolic value generated for students use experiences (perceived value-in-use). With a smart active relationship between students and HEI, the focus of interaction should be geared towards capturing various forms of brand attachments. In addition to that, the role in which students play as co-creators must also have clarity. Through continuous internal branding efforts, students may feel a sense of responsibility over their HEI brand and may trigger direct or indirect effects of advocacy behavior. This calls for HEIs to not only manage value co-creation in the exchange processes, but focus throughout the students' journey, even after becoming an alumni, because it is no doubt students will perceived value-in-use (use experience) towards future co-creations.

The purpose of this paper is to propose antecedents of perceived value-in-use and explored within the context of students who will eventually become Alumni of private HEIs in Malaysia, from the effects of extra-role behaviour, trust, self-brand connection and brand prominence, in view of transforming students to becoming brand advocates for their institutions.

**Keywords:** Value-in-use, Extra-role Behaviour, Trust, Self-brand Connection, Brand Prominence, Advocacy

## Introduction

In a world where digital technologies has allowed consumers to interact and share information, knowledge has become a key resource to any higher education institutions (HEIs) that have come to realize to importance of customer advocacy behavior. It has become inevitable for HEIs to focus on the key role students' play as internal catalyst for change (Warwick, 2016). The concept of co-creation has been recently conceptualized (Vargo & Lusch, 2004), and it has shifted the power of a brand to co-creating with customers. Now, with this new perspective, customers are treated as 'proactive co-creators' as well as facilitators of the value co-creation process, which is part of the precept of Service-Dominant logic, better known as SDL in marketing theory (Payne & Frow, 2011). According to the Balance theory, to build and maintain powerful brands, a stronger focus on internal stakeholders is needed for consistency between brand perspectives and customer attitude (Garas, Mahran & Mohamed, 2018). This is especially crucial due to phenomenological changes in the concept of a brand, whereby it is moving away from firm-provided property of goods to brand as a collaborative in the value co-creation activity of firms and all of their stakeholders (Mez, Yi & Vargo, 2009) and a form of self-embeddedness with a brand.

However, the way in which students form their perception especially towards use experience has always been an issue. With the customer path that has changed explicitly especially due to the digital revolution in Asia. In fact the advocacy behavior in Asia is stronger than any marketing campaign (Lawer & Knox, 2006). In fact in a recent book release titled *New Wave* in marketing, in the post connectivity era, people are moving away from messages from advertising and are dependent on word-of-mouth reviews, recommendations and advises given by students who are either currently experiencing or experienced the usage consumption (Kotler, Kartajaya & Hooi, 2017). In fact the rate of mechanical and scientific advancement has made it easier for students to build community regardless of their geographical boundaries (Park, Macinnis, Priester, Eisingerich & Iacobucci, 2010). It was reported in 2015, 40% of population in Asia uses internet, with 93% being mobile users. These numbers shows that digitalization in Asia is aggressive and in Malaysia, 67.5% of users in Malaysia uses internet users are 137% (one user may have more than one phone line) (Kotler et al. 2017). In the post connectivity era, customers' loyalty today is no longer characterized by retention and repurchase, but rather by customer recommendation to others (Kotler et al. 2017). Hence, with trust in the relationship between students and HEIs, the willingness to give recommendations of a brand indicates that the customer has high confidence in the brand. But this can also have negative consequences if the brand identity does not live up to the promises, then customers brand image may be falsely perceived.

In Malaysia, 42% of HEIs are private for-profit landscape institutions with a student population of close to 624,000 students out of 1.3 million (Tapsir, 2016). In developed economies such as England and USA, private higher education providers constitute approximately 33% (England) and USA (23.4%), a number considerably lower than Malaysia. With more than 500 private providers (386 colleges and 23 university colleges and 71 universities) in Malaysia, making this a very crowded field (Teng, 2016). Hence, the challenges today is to also encourage students to be involved in future co-creation by sharing their experiences with other stakeholders, as part of as improving overall brand image and value for students (Jillapalli & Wilcom, 2010; Phadke & Bhagwat, 2011) and brand identity for HEIs (Anholt, 2010).

When it comes to understanding relationship between perceived use value and advocacy behavior, many researchers have included different variables to such as autonomy, relatedness, competence (Jillapalli & Wilcox, 2010), satisfaction (Susanta, Alhabsji, Idrus & Nimran, 2013), self-brand connection (Kemp, Childers & Williams, 2012). More than 90 percent of customers identify word-of-mouth as the best, most reliable and relevant source of ideas and information about products and services (Lowenstein, 2012). However, the act of advocacy behavior is mostly voluntary and beyond the control of the service provider, but it is imperative for the sustainability of a brand value. Thus, perceived value-in-use or use experiences, most frequently used interchangeably is a concept that need to be explored from customer's perspective, in turn will affect the brand. In previous studies on value co-creation from a relational perspective, the focus is mainly on perceive variables such as trust, value, communication or loyalty (Sanchez-Fernandez, Iniesta-Bonillo, Schlesinger-Diaz & Rivera-Torres, 2010). Then, later extended it incorporating additional variables such as quality of the interaction, trust, image, satisfaction and loyalty. However, this paper posits to extent their works in light of the SDL perspective of whereby the effect from role-clarity, trust, self-brand connection and brand prominence towards advocacy behavior is explored.

## **Literature Review**

### **Customer advocacy behavior**

Traditionally the approach taken in building strong brands is by moving customers through the sales funnel of awareness, consideration, preference, purchase and loyalty. But in today's competitive and digital revolutionary environment, brands want to encourage their customers and potential customers to actively engage as advocates (Kotler et al. 2017). Advocates who engages in advocacy behavior projects the likelihood to advocate a brand to their friends and acquaintances, and is found to be far more important than either brand image or brand satisfaction in predicting growth (Kirby & Marsden, 2016) and brand value (Merz et al. 2009). Similar to the concept of word-of-mouth (WOM) advocacy, is an important driver of business growth and profitability (Lovelock & Wirtz, 2007). While WOM is defined as "informal communication directed at other consumers about the ownership, usage or characteristics of particular goods and service and/or their seller", advocacy behavior is more specific than WOM which includes promotion (Walz & Celuch, 2010). In fact advocacy behavior is one of the aspects of customer citizenship behavior (Yi & Gong, 2013). Due to critical importance of word of mouth advocacy, it is pivotal for brands to leverage on service innovation by using social platforms to super-charge their advocates (Fugetta, 2012). In the context of HEIs, it is no doubt that the overall strategic direction of marketing should focus on optimizing the likelihood of students recommending brand to each other and other stakeholders, rather than advertising campaigns, promotional offers, PR or any other marketing initiatives (Fugetta, 2012). However, the task of building advocates is rather complex and difficult as it is dependent on perceived customer value.

With the changes in customer path, the landscape in post connectivity era has experience three shifts have taken place: firstly consumers are influenced by "community" surrounding them towards final attitude; secondly loyalty is ultimately defined as willingness to advocate for the brand; thirdly dialogues and connections can either strengthen or weaken the brand appeal (Kotler et al. 2017). The authors' further concur the focus on "care" must be part of any HEIs standard operating procedure (SOP) and most importantly processes must tend to more horizontal, focusing on "collaboration". This means that customers are now not treated as kings, but rather as a friend (Kotler, Kartajaya & Setiawan, 2016). In fact, the Triangle of Trust in the Advocacy system links brands to brand advocates, brand advocates to prospects through recommendation and eventually prospects to brands. All three are connected and communicate

with each other and provides equal value in terms of reward, recommendation and eventually revenue.

Nevertheless, influencing customers towards becoming advocates who will take a personal stake towards brand endorsement and authentic enthusiasm that influences potential customers to trust the brand can be a challenging one (Fugetta, 2012). Furthermore, customers today are turning to internet to share their thoughts, anxieties, personal stories and even seeking comfort from other peoples, and this in turn will influence the attitude and behavior towards a brand. This shows that customers today can also co-create by influencing how other customers perceive the brand and with this powerful role, they are some level of control in determining the success of modern brands (Payne, Storbacka, Frow & Knox, 2009; France, Merrilees & Miller, 2015 ; Garas et al. 2018 ; Gronroos & Voima, 2013). Research shows that 91% of people use a brand recommended by users derived partly from credibility, hence it shows with high word of mouth advocacy rate (ie: likelihood of brand recommendation), the brand grows faster in comparison with low word of mouth advocacy (Kirby & Marsden, 2016). However, researches on customer advocacy is relatively few as most studies tend to utilize the global view of it being a construct of word-of-mouth (WOM) and brand loyalty. But now with the emergence of SDL, a new perspective of value-in-use has paved an avenue to understand the willingness of customer advocacy behavior, especially now it is recognized as part of studies on customer citizenship behavior (Yi & Gong, 2013). With that, it is important to explore aspects of perceived value-in-use that influences students towards the willingness to advocate on behalf of the brand.

### **Perceived value-in-use in Service-Dominant Logic (SDL) perspective**

Creating value from a customer co-creation value standpoint has been recognized as a current key concept in marketing, especially since the concept of value creation in SDL of marketing has emerged (Gronroos & Voima, 2013 ; Vargo & Lusch, 2004). Since then, consumers are no longer seen as passive purchasers of the brand, but rather are active participant in creating brand experiences (Prahalad & Ramaswamy, 2000 ; Vargo & Lusch, 2004). In lieu of that, customers today, especially in service oriented organizations play a powerful role in determining the success of the brand (France et al. 2015). Hence today we look at the deeper understanding of perception.

While perception refers to the way in which an experience is understood or interpreted (Rosenbaum-Elliott, Percy & Pervan, 2011), value-in-use is an experiential evaluation throughout the service process, hence it can be captured positively or negatively (Medberg, 2016). It is the “the customer’s experiential evaluation of the product or service proposition beyond its functional attributes and in accordance with his/her individual motivation, specialized competences, actions, processes, and performances” which is the emphasis in age of advocacy (Edvardsson, Enquist & Johnston, 2010). With that, value-in-use emerges (or is created) through the user’s accumulating experiences with resources, processes (and/or their outcomes) in social, physical, temporal and/or spatial contexts, and hence, value creation is here defined as the customer’s creation of value-in-use (Ranjan and Read, 2016). Value is only determined when it is in use, regardless whether it is before, during or after the consumption period.

In the service marketing and branding literature, the focus of customer engagement is evidently shifting from firm-brand relationship towards stakeholder-focus era. With the support of the foundational premises of S-D logic, it was evolved to brand logic which conceptualizes all stakeholders form network relationship with brands and interact socially with other stakeholders (Merz et al. 2009). This clearly shows that today’s customers want to market with the company, seeking a role as a “partial employee”, “working consumer” or “change agent” (Payne et al. 2009 ; Vargo & Lusch, 2004 ; Xie, Bagozzi & Troye, 2008). The relationship

marketing literature relates to variables such as trust, value, communication, image or loyalty (Morgan & Hunt, 1994 ; Sanchez-Fernandez et al. 2010). These variables are important construct to the development of a long-term relationship with stakeholders. But with the emergence of S-D Logic emphasizing on co-creation, the concept of value changed. Hence, “Customers do not buy goods or services; they buy offerings which render services which create value.....this shift in focus to services is a shift from the means and the producer perspective to the utilization and the customer perspective”(Vargo & Lusch, 2004).

This is an important perspective to perceive ViU is only realized by and in the context of the life of the consumer. Though it is recently only realized, who stated “what people desire is not products but satisfying experiences” (Medberg, 2016). Then, it was extended by the statement “phenomenological determined by the beneficiary” (Vargo & Lusch, 2011). It is through customer experiences, the use value is generated (Ranjan & Read, 2016). Research shows that this approach downplays the role of products and services in generating value for the customer, and instead focuses on experiences resulting from the use of the product and services, and this is how these experiences generate value-in-use (Medberg, 2016).

One of the attractions of S-D logic is that customers are not seen as simply passive receivers of value but “as possessors of operant resources.....that they integrate to create experiences and value” (Baron, Patterson, Warnaby & Harris, 2010 ; Walz & Celuch, 2010). In other words, they are seen as active participants in the integration of resources as part of a network of actors (Vargo & Lusch, 2011). While it was focus on both service providers to involve customers in developing the value proposition itself, but it was later argued for long term relationship between a service provider an customer to work, they must be mutually satisfactory value propositions offered by both parties; what they term ‘reciprocal’ value propositions (Vargo & Lusch, 2004 ; Ballantyne & Varrey, 2006). Hence, shifting away exclusively customer-brand relationship is replaced with the idea of all stakeholders co-create brand value (Merz et al. 2009) which is viewed as a continuous social process in which brand value is being co-created through stakeholder-based negotiations (Muniz & O’Guinn, 2001; Brodie et al. 2011).

### **Customer role clarity**

The literature shows that role clarity is an important part of organizational citizenship behavior which consists of ‘in-role’ and ‘extra-role’ behaviors (Siddhart & Agrawal, 2014). But today, it is not limited to organizational behavior, but also applicable in consumer behavior, especially because the effects of varying degrees of ambiguities or conflicts in student roles that can lead to tensions, frustration and disloyalties. Drawing from the role theory, role clarity is not new to marketing, but very little attention is given towards customer role identity in service context, despite support for the reciprocal involvement of providers and customers in service encounters (Yousefian, 2015). With now the focus on co-creation, students in HEIs functioning as “partial employee”, this behavior can positive or negative in nature. Either way, the role students play is purely voluntary and discretionary when it comes to helping others, following rules and supporting the brand objectives (Stoner et al. 2011). In reference to role identity theory, performing extra-role behavior is referred to “component of the self that correspond to the social roles we play” (Stoner et al. 2011). This theory is critical to the study of extra-role behaviors firstly because it emphasizes on social relations and role expectation; secondly it reflects the internalized role expectation of others. However, role clarity has also been classified as consumer readiness (Meuter, Bitner, Ostrom & Brown, 2005; Yoo, Arnold & Frankwich, 2012) and consumer identification (Keh & Xie, 2009).

While customer readiness is focus on the willingness of consumers to take on the role to share their thoughts and feelings with others, consumer brand identifications is defined as the degree to which the brand expresses and enhances consumer identity (Tuskej, Golob & Podnar. 2013). But if consumers feels that their effort level will lead to goal attainment or rewards is valued

by the individual, the willingness to engage in advocacy behavior is higher. Hence understanding and analyzing customer knowledge is a key driver to create customer equity. However, in doing so, HEI must ensure constant communication on not only expected in-role behavior, but also triggering consequences of consumer extra-role duties. While, managing 'in-role' behavior of students is within the control of HEIs by setting guidelines, rules, regulations and systems, the 'extra-role' behavior of students is discretionary. The extra-role behavior in role clarity is defined when a person "goes beyond existing role requirement" (Siddhart & Agrawal, 2014). It's something beyond the call of duty or the requirements set by service providers. The extra role behavior is argued to be part of citizenship behavior as soon as the level of engagement in a certain behavior exceed the minimum standards required by customers (Siddhart & Agrawal, 2014)..

In fact, students may identify with the brand not only for self-definition purposes but also self-referrals (Keh & Xie, 2009). Hence, the concept of role clarity from consumer perspective is pivotal towards the understanding corporate reputation, behavioral intentions, willingness to pay premium price (Keh & Xie, 2009) and citizenship behavior (Yi & Gong, 2013; Bataineh, Alfalah, Falah & Idris, 2017). In the age of co-creation value, the customers requires clarity in roles they can undertake as a customer, especially when they go on to become independent value creators. The role theory was related to role clarity by means of knowledge and understanding of what to do and what must be performed (Medberg, 2016). Role clarity or ambiguity operationalized from an objective perspective refers to the presence or absence of adequate role-relevant information due either to restriction of this information or to variation of the quality of information, while subjective feeling of having as much or not as much role-relevant information as the person would like to have (Lyon, 1971). However, the author further highlights both types tend to measure role clarity that relates to satisfaction and reduced tension, thereby increasing brand trust. In fact the authors' observation becomes more pertinent considering the fact that Asians are characteristically quite communal in nature, leading towards advocacy (Kotler et al. 2017).

For example in the context of students of HEIs, it is pivotal that they need to know how to use the services and facilities, what is expected of them, how much authority they have, what responsibilities they, how to deal with support staff and academic staff. However, it is no doubt, they will eventually go on to communicate with customers outside institutions, hence it is important that students are equipped with the right knowledge and information, and are familiar with their roles to avoid ambiguities and conflicts which bring about negative consequences on brand value (Meuter et al. 2005). When students proudly refer to themselves as a graduate, it's a way of showing that they are proud being part of the brand, and therefore spreading positive word-of-mouth or even being resilience to negative information associated with the brand (Keh & Xie, 2009) becomes part of their extra role behavior in perceiving value-in-use (Meuter et al. 2005). But sometimes consumers may have ambiguity if they subjectively perceive the information, rules, systems are not transparent and are not getting what they wish; or even the relevant knowledge is not properly cascaded, leading to some ambiguity of their expected roles. This can also be negatively associated with their perception and will impact on future co-creations. In fact today, customers equip with high levels of brand knowledge are considered as catalyst for role clarity (Bataineh et al. 2017). With clear and confident about their student roles in their institution, they may feels highly belong to their institution, that will eventually show loyalty behavior (Mukherjee & Malhotra, 2006).

### **Customer trust and commitment**

Trust has traditionally been considered as a key variable for long lasting relationships and as a preceding state for the development of commitment. It was defined as a "a willingness to rely on an exchange partner in whom one has confidence" (Sanchez-Fernandez et al. 2010).

Then it was further extended by highlighting that students' trust in educational institution can be understood as their confidence in its integrity and reliability, and it is based on the personal experiences of students with faculty members (Morgan & Hunt, 1994; Hennig-Thurau, Gwinner & Gremler, 2002). Later, trust was defined as "customer's belief that a firm is reliable, stand by its word, fulfil its promised obligations, and is sincere" (Yousefian, 2015). It was further stated trust is formed in three processes: prediction, intentionality and capability. While the prediction process of trust focuses on individual belief on the ability to forecast a firm's future action, intentionality relates to individual's ability to interpret benevolence resulting firm's prior actions, and capability focuses on individual's ability to assess firm's competency to meet obligation to customers. The focus of intentionality of students in HEIs are crucial as it's a prediction towards their future behavior, when co-creating with others in the network. Drawing from the commitment-trust theory, there is a major shift in the theory whereby the focus now is in the buyer partnership relationship which requires focus on establishing, developing, and maintaining successful relationship exchanges (Morgan and Hunt, 1994). The theory used in KMV of relationship model comprising of shared values, communication and opportunistic behavior explained how trust can lead to relationship commitment by having open communication and shared values (Morgan and Hunt, 1994). In addition to that, customer trust can be also from the level of reliability ensured by one party to another within a given exchange relationship (Nguyen, Leclerc & LeBlanc, 2013).

This affirms trust creates value because it provides relational benefits which is derived from the constant interaction between the service provider and consumers, and this in turn will reduce uncertainties, ambiguities and conflicts in the minds of consumers (Sanchez-Fernandez et al. 2010). Its roots from social exchange theory shows that commitment is an exchange party's long term desire to maintain a valuable ongoing relationship with another (Keh & Xie, 2009), but it was also highlighted in the context of services marketing, relationship is on the basis of mutual commitment (Berry & Parasuraman, 1993). For service marketing to be effective, managing trust is crucial as customer typically buy a service before experiencing it" (Keh & Xie, 2009). For example, a customer engaging with other potential customers in a positive note, endorsing the brand depicts a sense of commitment to the brand. Hence, today customer commitment is defined as an exchange partner's willingness to maintain an important enduring relationship, which could extend ViU through co-creation value with other stakeholders (Hennig-Thurau et al. 2002).

### **Self-brand connection**

Two of the most important properties to brand attachment are brand-self connection and brand prominence (Park, Macinnis, Priester, Eisingerich & Iacobucci, 2010). Both these antecedents are important as its measures the "strength" of the bond connecting the brand with the consumer, which will ultimately result in not only repurchase behavior but also to engage in relationship-sustaining behavior. This could lead to greater behavioral commitment in the form of brand loyalty and other behaviors such as positive word-of-mouth, more time, money and energy spent on the relationship.

Self-brand attachment is defined as the strength of the bond connecting the brand with the self, which is consistent with attachment theory (Park et al. 2010). It involves thoughts and feelings about the brand and the brand's relationship to the self and focuses on aspects of attachment which involves cognitive and emotional connection between the brand and self. Furthermore, brand attachment concept also share some conceptual resemblance to brand relationship quality (BRQ), as brand-self connection is also one of the six indicators (Fournier, 1998). The other five indicators of BRQ are commitment, love/passion, intimacy, and interdependence and brand partner quality. However, the attachment can vary in strength, whereby stronger attachments are associated with stronger feelings of connection, affection, love, and passion

(Thomson, MacInnis & Park, 2005). With students acting as “partial employees”, it clearly shows students are involved in a business relationship with the brand and a shopper relationship with the consumer by providing information (Fournier 1998).

In any co-creation circumstances, especially in the context of stakeholder-focus brand era, the responsibility of a brand value is heavily dependent on the relationships between the consumers and brand. Hence, consumer’s commitment to the brand must be viewed as a psychological attachment whereby the impact of their readiness to spend more effort in order to reach the brand goal (Bataineh et al. 2017). In the context of students, it is important that the institution instill a feelings of being proud and belonging to the university could be imperative. When students depict high levels of psychological attachment to the brand, it will high level of commitment of students and this is an important variable in advocacy, which is part of consumer citizenship behavior.

### **Brand Prominence**

Another property of brand attachment is brand prominence, while has some variation from self-brand connection. When consumers become highly attached are more motivated to devote their own resources to the process of self-expansion, including paying more, defending the brand, derogating alternatives, and devoting more time to the brand through brand communities and brand promotion through social media, then brand prominence is evident (Raut, 2015). Brand prominence suggests the extent to which positive feelings and a memory about the attachment is perceived as top of mind and services as an indicator or attachment (Park et al. 2010).

Brand prominence is an important variable towards understanding attitude strength in terms of consumer ability to predict separation anxieties (Raut, 2015). Furthermore, this variable may serve as an important indicator of attachment when consumers are connected to a brand because of its instrumental value (i.e., a person’s iMac is important in fulfilling entertainment- and work-related goals). That is, when a brand has instrumental value, attachment should be stronger when brand-related thoughts and feelings are more versus less prominent (Park et al. 2010). In the context of HEI, this process may take time, but with the number of hours a student spends at an institution, this may not be impossible. This can also be example from the concept of love (Shrimp & Madden, 1988), thereafter coming up with the Triangular theory of Love which is made up of three components: intimacy, passion and commitment (Sternberg, 1986). While intimacy refers to the closeness and warmth that is felt within the relationship, passion focuses on the physical drives that lead to arousals, while commitment refers to the decision to be committed to a loving relationship (Sternberg, 1986).

### **Conclusion**

The choice for customer to be involved in advocacy behavior on any brand has a significant impact on any organizational performance and image. In an age whereby consumers are relying on word-of-mouth of others, it has become critical for organisations, especially service based companies such as HEIs convert students to advocates through various internal branding strategies. But first and foremost, in order to influence advocacy behavior, students must first have a clear understanding of their ‘extra-role’ duties which forms role clarity (Stoner et al. 2011). With role clarity, ambiguities and conflicts can be reduced in view of influencing students’ ability to act on behalf of the identity of an institution (Stoner et al. 2011). Another important factor is trust. Trust is an important factor in the relationships between customers and organizations. It is especially pivotal in successful service relationships (Parasuraman, Zeithaml & Berry, 1985). It was also suggest that customer trust should be regarded as an antecedent when studying existing customers (Brodie et al. 2011). This is especially because students aspire to have relationships with brands they can trust, share values with, and deem to be socially responsible; secondly engaging in relational behavior with the brands is to also

reduce perceived risks and achieve greater efficiency and consistency in their decision making (Jillapalli & Wilcox, 2010). When students have clarity in how to perform their extra role duties and trust, a level of attachment with the brand in the form of self-brand connection which is top-of-mind may happen over time (Fournier, 1998). Therefore, it is encouraged for HEIs to explore these factors in understanding of their students' commitment towards the brand. As part of internal branding efforts, HEIs must recognize students will eventually become graduates, and they relate to the brand at a degree to which the brand expresses and enhances consumer's identity (Tuskej et al. 2013).

This study of exploration also indicates that it may be useful to other work institutions for example, brand managers and senior officials, the higher education government bodies, customer services to recognize that the advocacy behavior of any customer is a way of endorsing the brand for others to have confidence in the brand.

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# The Influence of Internet of Things on Employee's Engagement among Generation Y at the Workplace: An Empirical study

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## Abstract

**Purpose:** This study provides the analysis of the influences Internet of Things (IoT) have towards employee engagement among generation Y in the workplace. Due to the declining levels of engagement among employees, especially among generation Y, a study on the influences IoT towards the engagement levels is crucial.

**Design/methodology/approach:** Using the Technology Acceptance Model (TAM), United Theory of Acceptance and Use of Technology (UTAUT) and employee engagement model the conceptual model for the research was developed. 374 respondents were analyzed for the research by using the Statistical Package for Social Sciences (SPSS) Software.

**Findings:** The analysis showed that levels of engagement among employees in the workplace is influenced by the performance expectancy of IoT, effort expectancy of IoT, attitude towards using IoT and the perceived enjoyment towards IoT. The acceptance, adoption and use of IoT have a mediating role in the model.

**Research limitations/implications:** The research will contribute towards the development and performances of organizations.

**Practical implications:** The research will contribute towards the development and performances of organizations.

**Originality/value:** In this paper, the concept of the usage of IoT is taken into consideration in determining the engagement levels among employees. Past researchers studied the concept of IoT and employee engagement in general. Future research should be conducted in this area in order to reap the benefits of the usage of IoT in the workplace.

**Keywords:** Internet of Things (IoT), Generation Y, Employee Engagement, TAM, UTAUT

## Introduction

The business world is often the target for problems ranging from competitions, growth of information and technology, economic problems, dynamic changes (Veleva, Bodkin, & Todorova, 2017) and many more. The challenges have demanded changes to be implemented by organizations. Price cuts, downsizing and re-structuring are examples of changes that have been implemented in the organizations to adapt to the challenges (Hernaus & Vokic, 2014). However, organizations need to realize the importance of re-structuring the way the organization work, from the production management, human resources department and all the

other departments. Retaining employees and maintain the engagement levels will change the performances of the organizations without the need to implement other drastic changes (Bakker, 2015).

However, employee engagement has always been an issue in the world. In 2016, the trend showed a decrease from 65% to 63% (Hewitt, 2017b). Based on the reports done by Gallup regarding the state of the American Workplace, as high as 51% out of almost 32 million employees surveyed are not engaged in their work while 16% were reported to be actively disengaged (Gallup, 2017). The trend is similar in Asia where the levels of employee engagement decreased from 65% to 62% (Hewitt, 2017b). As for the levels of engagement in Malaysia, the results of the report recorded that Malaysia has one of the lowest engagement rates among other Asian countries for the year 2017 (Hewitt, 2017a) with the generation Y employees recording the lowest rate (Hewitt, 2017b). Factors influencing the engagement levels should be researched further to overcome the issue of disengagement.

For generations that are born in the world of technology, they are described as technically adaptable; this includes the generation Y individuals. Thus, technology plays an important role in the lives of the generation groups (Hernaus & Vokic, 2014). The use of internet and social media (Jones, Borgman, & Ulusoy, 2015) enables the users to find any information within seconds and stay updated anywhere, anytime. A study reported that with the adaptation of technology, the organization might be able to retain their employees (Dijkman, Sprenkels, Peeters, & Janssen, 2015).

IoT is the latest concept of technology (Lee & Lee, 2015). IoT is the interconnection of the electronic devices that are currently present in the world, made possible with the internet (Dijkman et al., 2015). Thus, IoT is a concept that need to be researched further and the influences towards organizations need to be analysed to study the impact on the engagement levels among the employees.

The research questions being addressed for the study would be :

1. How IoT influences the engagement levels among Generation Y employees?
2. How IoT influences the engagement levels among Generation Y employees with the mediating role of employees' acceptance and usage of IoT?

The study starts by analysing the relevant literatures to propose an integrated an integrated model. The model will be used to study the factors influencing employee engagement with the mediating role of IoT adoption and usage in the workplace.

The remainder of the study will discuss on the literature review based on the study done by past researchers, the research model and the developed hypotheses; Section 3 will describe the research methods; Section 4 analyses the findings and the results and Section 5 provided the explanation and conclusion to the findings of the research with future recommendations.

## **Literature Review**

### **Generation Y**

The differences in generations are the same as cultural differences. The ways the generations' individuals were brought up, the environment and members of the society are the factors influencing the differences between the generations. Many researchers agree that the characteristics of generation Y are unique and different from the past generations (Fernandez, 2009).

Generation Y have many resources, are energetic and action oriented, follows trends and are dependent on media and internet for information. Other than that, Generation Y individuals are more open towards diversity, technology, online communication (Fernandez, 2009), open to flexibility, new inputs and possibilities (Choi, Kwon, & Kim, 2013). Some aspects that are demanded by Generation Y individuals are a career that is challenging, interesting, rewarding,

satisfying and provides them with good salary. According to (PrincetonOne & Hobart, 2013), generation Y individuals demands for their work to be meaningful and interesting.

Since generation Y is a technology savvy generation, the use of technology in the organization will benefit both the organization and the employees with proper usage (Fernandez, 2009) and (Choi et al., 2013). The characteristics and demands of generation Y is thus a very important aspect to study in order to ensure the performances in the workplace.

### **Employee Engagement**

Employee engagement has been shown to increase employee performances in an organization. Employee engagement is more than the aspect of job satisfaction that has been researched in the past few years by many researchers (Özçelik, 2015). According to the research done by Schneider & Macey, (2008), employee engagement can be defined as having an organizational purpose, being involved, passionate, enthusiastic and having the energy to perform work. Further reported by Schneider & Macey's, (2008), engagement can be referred to as a psychological state of an individual where emphasis is given on absorption, passion and affection towards the job. When the needs of an individual are met, individuals will be emotionally and cognitively engaged.

There are many claims that engagement is important to ensure high performance and high productivity of an organization. Higher employee engagement will lead to higher job satisfaction, retention, profitability, performances customer loyalty and organizational citizenship behaviour (Veleva et al., 2017). Engaged employees will have the interest to devote their selves to the organization (Caesens & Stinglhamber, 2014) while enjoying their work. Organizations with engaged employees will increase the individual's outcomes, organizational success and financial performances. Other than that, engagement increases levels of employee retention, quality of product and an increased in the levels of satisfaction among customers (Schullery, 2013). High engagement will reduce absenteeism, increase in employee effort and productivity, increased in productivity and many more (Fernandez, 2009). Employees who are engaged in their work tend to make personal sacrifices for the organization. They will feel that they belonged to the organization.

As for the measurement of engagement levels among individuals and employees, many models have been developed. One of the models focused on the psychological state of individuals. For employees to be engaged there are three main psychological conditions that are important which are meaningfulness, safety and availability (Akbar, 2013). Engagement can also be categorized into vigour, dedication and absorption (Bakar, 2013). Vigour is the feeling of an individual when they experience physical strength, emotional energy and cognitive liveliness (Bakar, 2013). Dedication is the feeling of giving an impact, inspire and the pride in doing a task while absorption in the other hand, is the level of concentration an individual give towards their tasks (Caesens & Stinglhamber, 2014).

### **Internet of Things**

Internet is considered as a vital part in life of any individual. Internet is a way to connect and share thoughts, words, information, experiences and many more to anyone around the world (Isaac, Abdullah, Ramayah, & Mutahar, 2017). IoT involves interconnected objects that harvest information from the environment, interacts with the environment and by using the internet, provide information, analytics and communications to the users (Gubbi, Buyya, Marusic, & Palaniswami, 2013) and (Lee & Lee, 2015). IoT, thus, connects people and provides them with access to valuable information that is necessary and vital for their everyday lives easily (Gubbi et al., 2013). Hence, it is vital to study on the influences IoT have on individuals and the aspects of these influences.

The connectivity between the internet and the devices will make life easier for people by anticipating and fulfilling the needs of users and individuals (Sarin, 2016). Other than that, IoT made it possible to integrate and communicate between the current devices and even future devices to ensure that users will receive all the data that are necessary from all of their devices (Agrawal & Vieira, 2013). In the perspective of suppliers, connected products will provide the suppliers with constant updates and access to the data on the application, wear and tear the different features and other necessary information. With these data, suppliers will be able to gather the information needed in order to develop better products in the future. Other than that, connected devices will enable the organizations to develop a better product and services where maintenance and development can be done based on actual requirements. The software of the connected devices can also be updated easier compared to when it is not connected (Saarikko, Westergren, & Blomquist, 2017).

Connected devices allow the collection of information and easier identification of the problem that has occurred. Information collected can range from the performance, energy usage and the environment of the devices (Lee & Lee, 2015). Another benefit of IoT is the ability in locating devices that is faulty or in good shape. Since the devices are connected, the technicians will be aware of which devices and where the faulty devices are located (Saarikko et al., 2017). IoT gives organization benefits in terms of monitoring and controlling devices, services, products, decision making other than assisting in sharing and collaboration of information (Lee & Lee, 2015). With the improvement in the processes involved in an organization, the performances of the individual employees and their feelings towards their work will be influenced.

Based on some past researchers, internet technology have the potential to improve the economy, social life, culture and enhance the performance of organizations (Isaac et al., 2017). Currently, smart devices have been changing our daily lives making it more interactive and informative (Gubbi et al., 2013). By being aware of the information that is crucial, individuals will be able to react and ensure the performance of their work and tasks (Kafle, Fukushima, & Harai, 2015), improving the performance of the organization they are in, at the same time.

### Theoretical Framework and Hypothesis Development

TAM and UTAUT models are chosen for this research due to their emphasis on user behaviours towards the system. Other models focused on the individuals' psychology instead of behaviours and experiences with the use of the system.

Employee engagement can be measured by using several models. The model that will be utilised in this research is the model comprising of the cognitive, emotional and physical factors of engagement (May, Gilson, & Harter, 2004).

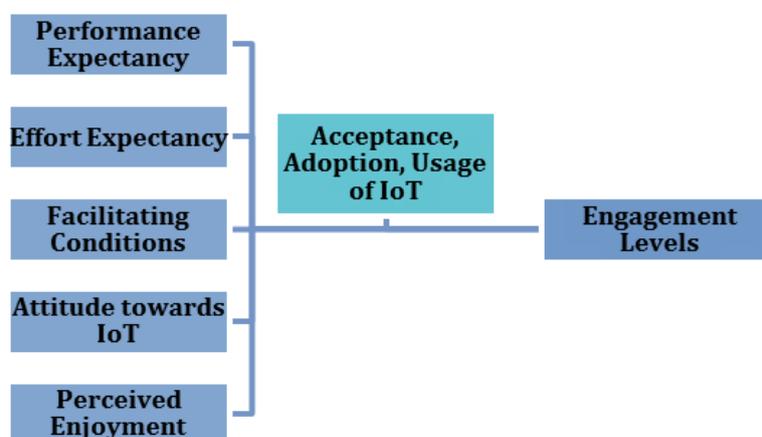


Figure 1: Conceptual Framework

In order to ensure the adoption of technology is a success for personal usage or for work, there must be gains in using the certain technology (Wu & Wang, 2005).

**H1. There is significant relationship between Performance Expectancy of IoT and employee engagement**

To ensure that IoT receives the support of the users, IoT will need to be easy to use, free of effort (Wu & Wang, 2005).

**H2. There is significant relationship between Effort Expectancy of IoT and employee engagement**

Facilitating conditions is the degree of availability of resources, knowledge and support that is essential in the acceptance, adoption and use of IoT systems (Venkatesh et al., 2012).

**H3. There is significant relationship between Facilitating Conditions for IoT and employee engagement**

The feelings experienced while using a system is as important as the usefulness of the system. The feeling experienced will affect the users' perception and acceptance towards the system.

**H4. There is significant relationship between Attitude towards using IoT and employee engagement**

Feeling of enjoyment and fulfilment in doing work will improve the feeling of engagement among the employees (Kueh & Voon, 2007).

**H5. There is significant relationship between Perceived Enjoyment towards IoT and employee engagement**

The levels of engagement will be influenced by the adoption and usage of IoT. This factor will act as the mediator for the study.

**H6. There is significant relationship between Performance Expectancy, Effort Expectancy, Facilitating Conditions, Attitude towards using IoT and Perceived Enjoyment towards IoT and employee engagement with the mediating role of the acceptance, adoption and usage of IoT.**

## **Method**

The study utilized the quantitative method and is based on primary and secondary data collection. Primary data will be from questionnaires distributed to obtain the results of the research while secondary data will be from the past literatures that are relevant to the research. Simple random sampling is the method chosen for this research. The questionnaires utilizing the Likert scale as a way to measure the responses from the respondents will be distributed randomly. 5 points Likert scale was used. The scale ranged from one (strongly disagree) to five (strongly agree). With the scales, the acceptance levels of the respondents was collected and analysed. The questionnaire consisted of two main parts; demographic profile and the construct items, namely the variables of the research. The questionnaires were modified and adapted from past researchers to suit the context of this study (May et al., 2004), (Venkatesh et al., 2011), (Alshehri, 2012), (Venkatesh et al., 2012), (Akbar, 2013) and (Heijden, 2016). The sample size of the research would be 384 respondents.

## **Findings**

### **Demographic, Descriptive and Reliability Analysis**

A total of 374 questionnaires are then analysed further for the research. The response rate for this study is 93%. From the descriptive statistics table, it shows that the mean values for all the variables are higher than 3. The variables have mean values of 3 and above showing that the respondents responded positively to the research constructs. The values of skewness and kurtosis also show values lesser than 2, indicating that the values are close to the univariate normal distribution.

From the reliability test, the results indicated that the Cronbach's alpha values are above 0.6. In summary, all the items are reliable.

Table 1: Descriptive Statistics and Reliability Test

	Std. Dev	Skewness	Kurtosis	Cronbach's Alpha
PE	0.607	-0.384	-0.373	0.863
EE	0.614	-0.012	-0.564	0.846
FC	0.686	0.152	-0.274	0.751
ATU	0.597	-0.139	-0.281	0.844
ENJ	0.642	0.034	-0.607	0.827
ENG	0.588	-0.057	0.085	0.783
USE	0.635	-0.535	-0.072	0.855

### Multicollinearity and Inferential Analysis

Table 2: Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
PE	0.575	1.741
EE	0.453	2.208
FC	0.494	2.026
ATU	0.466	2.145
ENJ	0.61	1.64
USE	0.586	1.707

The VIF values for all the item constructs are well below 5.0 and the tolerance values are higher than 0.01 (Venkatesh et al., 2012) showing that there are no correlation problems with the variables. The variables are not correlated with each other.

Table 3: Pearson Correlations

	PE	EE	FC	ATU	ENJ	ENG	USE
PE	1						
EE	.336	1					
FC	.357	.641	1				
ATU	.364	.650	.631	1			
ENJ	.360	.561	.498	.529	1		
ENG	.265	.517	.397	.538	.621	1	
USE	.621	.329	.329	.380	.313	.349	1

The analysis of the Pearson Correlation showed that the independent variables are independent from each other, from the mediating and the dependent variables. All the values are well below 0.7 and this shows that the items in the study are not having any correlation issues. The variables are not related to each other

### Regression Analysis and Model Summary

Table 4: Regression Test and R values

Model		Unstandardized Coefficients ( $\beta$ )	Sig.
1	(Constant)	2.624	0
	PE	0.257	0
2	(Constant)	1.465	0
	PE	0.099	0.03
	EE	0.462	0
3	(Constant)	1.43	0
	PE	0.085	0.066
	EE	0.412	0
	FC	0.077	0.126
4	(Constant)	1.119	0
	PE	0.048	0.282
	EE	0.28	0
	FC	-0.024	0.646
	ATU	0.342	0
5	(Constant)	0.799	0
	PE	-0.011	0.785
	EE	0.153	0.005
	FC	-0.071	0.128
	ATU	0.254	0
	ENJ	0.403	0
6	(Constant)	0.658	0.001
	PE	-0.098	0.044
	EE	0.148	0.006
	FC	-0.073	0.113
	ATU	0.231	0
	ENJ	0.401	0
	USE	0.152	0.001

#### Analysis of Model 6

Model 6 of the regression analysis is the analysis for the independent and the mediating variables to the dependent variable. The significant value changes when the mediating variable is included in the analysis. This shows that when the mediating variable is included, the aspect of performance expectancy is significant to the study. Performance expectancy is highly dependent on the mediating variable.

The model 6 indicated there is a significant association between the independent variables, mediating variable and the dependent variable. The performance expectancy of IoT, effort expectancy of IoT, facilitating conditions for IoT, attitude towards using IoT, perceived enjoyment towards IoT and the acceptance, adoption and use of IoT significantly influences the levels of engagement of employees in the workplace.

#### Test of Significance ((hypo))

Hypothesis 1 <b>SUPPORTED</b>	Hypothesis 4 - <b>SUPPORTED</b>
Hypothesis 2 - <b>SUPPORTED</b>	Hypothesis 5 - <b>SUPPORTED</b>
Hypothesis 3 - <b>NOT SUPPORTED</b>	Hypothesis 6 - <b>SUPPORTED</b>

Based on the analysis, the multiple regression equation is as follow:

**Levels of engagement = 0.658 - 0.098 (Performance Expectancy) + 0.148 (Effort Expectancy) – 0.073 (Facilitating Conditions) + 0.231 (Attitude towards using IoT) + 0.401 (Perceived Enjoyment) + 0.152 (Acceptance, Adoption and Use of IoT)**

### **Discussion and Conclusion**

This study aim to enhance the understanding on the benefits IoT can provide towards the levels of engagement among the employees. The results emphasized that the adoption and use of IoT in the workplace will improve the levels of engagement among employees. Employees tend to be more engaged when the workplace they are in involved the use of IoT. Organizations that are able to provide a workplace that adopts the use of IoT will be able to increase the levels of the engagement among the employee.

This area of study should be researched further and thoroughly to ensure that the factors and attributes discussed in this study can be implemented and adopted well to reap the benefit from it, thus improving the performances of many organizations.

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## Abstract

**Purpose:** This study provides the analysis of the influences Internet of Things (IoT) have towards employee engagement among generation Y in the workplace. Due to the declining levels of engagement among employees, especially among generation Y, a study on the influences IoT towards the engagement levels is crucial.

**Design/methodology/approach:** The study utilizes the Technology Acceptance Model (TAM), United Theory of Acceptance and Use of Technology (UTAUT) and employee engagement model. A total of 384 respondents are targeted for the research. The responses will be analyzed using the Statistical Package for Social Sciences (SPSS) Software.

**Findings:** The aspects of performance expectancy of IoT, effort expectancy of IoT, facilitating conditions for IoT, attitude towards using IoT and the perceived enjoyment towards IoT are the focus of this research. The acceptance, adoption and use of IoT have a mediating role in the model.

**Research limitations/implications:** A possible limitation of the research is the limited views which are focused on only the generation Y employees.

**Practical implications:** The research will contribute towards the development and performances of organizations.

**Originality/value:** The basis of the research has not been researched by other researchers and this would be of a great value towards organizations.

**Keywords:** Internet of Things (IoT), Employee Engagement, Generation Y, TAM, UTAUT

## Introduction

The business world is often the target for problems ranging from competitions, growth of information and technology, economic problems, dynamic changes [1] and many more. The challenges have demanded changes to be implemented by organizations. Price cuts, downsizing and re-structuring are examples of changes that have been implemented in the organizations to adapt to the challenges [2]. However, organizations need to realize the importance of re-structuring the way the organization work, from the production management, human resources department and to all the other departments. Retaining and ensuring engagement levels of employees will change the performances of the organizations without the need to implement other drastic changes [3].

However, employee engagement has always been an issue in the world. In 2016, the trend showed a decrease from 65% to 63% [4]. Based on the reports done by Gallup regarding the state of the American Workplace, as high as 51% out of almost 32 million employees surveyed are not engaged in their work while 16% were reported to be actively disengaged [5]. The trend is similar in Asia where the levels of employee engagement decreased from 65% to 62% [4]. As for the levels of engagement in Malaysia, the results of the report recorded that Malaysia has one of the lowest engagement rates among other Asian countries for the year 2017 [6] where the overall levels of engagement dropped by 2 points from 61% to 59%. A more detailed analysis conducted showed that the engagement for generation Y employees is the lowest [4]. Factors influencing the engagement levels should be researched further to overcome the issue of disengagement.

For generations that are born in the world of technology, they are described as technically adaptable; this includes the generation Y individuals. Thus, technology plays an important role in the lives of the generation groups [2]. The use of internet and social media [7] enables the users to find any information within seconds and stay updated anywhere, anytime. A study reported that with the adaptation of technology, the organization will be able to retain their employees [8].

Internet of Things is the latest concept of technology [9]. Internet of Things is the interconnection of electronic devices that are currently present in the world, made possible with the internet [8]. Thus, Internet of Things is a concept that need to be researched further and the influences towards organizations need to be analysed. The impact on the engagement levels among the employees, with and without the use of IoT should be studied.

The research questions being addressed for the study would be:

How Internet of Things influences the engagement levels among Generation Y employees?

How Internet of Things influences the engagement levels among Generation Y employees with the mediating role of employees' acceptance and usage of Internet of Things?

The study starts by analysing the relevant literatures to propose an integrated model for the research. The model will be used to study the factors influencing employee engagement with the mediating role of IoT adoption and usage in the workplace.

The remainder of the study will discuss on the literature review based on the study done by past researchers, the research model and the developed hypotheses; Section 3 will describe the research methods and Section 4 will provide a conclusion to the research along with future recommendations.

## **Literature Review**

### ***Generation Y***

The differences in generations are the same as cultural differences. The ways the generations' individuals were brought up, the environment and members of the society are the factors influencing the differences between the generations. Many researchers agree that the characteristics of generation Y are unique and different from the past generations [10].

Generation Y have many resources, are energetic and action oriented, follows trends and are dependent on media and internet for information. Other than that, Generation Y individuals are more open towards diversity, technology, online communication [10] other than being open to flexibility, new inputs and possibilities [11]. Some aspects that are demanded by Generation Y individuals are a career that is challenging, interesting, rewarding, satisfying and which provides them with good salary. Generation Y individuals also demands for their work to be meaningful and interesting [12].

Since generation Y is a technology savvy generation, the use of technology in the organization will benefit both the organization and the employees, with proper usage [10] and [11]. The

characteristics and demands of generation Y is thus, a very important aspect to study in order to ensure the performances in the workplace.

### ***Employee Engagement***

Employee engagement has been shown to increase employee performances in an organization. Employee engagement is more than the aspect of job satisfaction that has been researched in the past few years by many researchers [13]. According to a past research done by Schneider & Macey, (2008), employee engagement can be defined as having an organizational purpose, being involved, passionate, enthusiastic and having the energy to perform work [14]. Engagement can also be referred to as a psychological state of an individual where emphasis is given on absorption, passion and affection towards the job [14]. When the needs of an individual are met, individuals will be emotionally and cognitively engaged. Thus, employees that receive sufficient continuous growth opportunities in any organization will feel a sense of belonging, involvement and progress in the organization. Individuals will tend to stay loyal with the organization.

There are many claims that engagement is important to ensure high performance and high productivity of an organization. Higher employee engagement will lead to higher job satisfaction, retention, profitability, performances, customer loyalty and organizational citizenship behaviour [1]. Engaged employees will have the interest to devote their selves to the organization [15] while enjoying their work. Organizations with engaged employees will increase the individual's outcomes, organizational success and financial performances.

Employee engagement has been shown to improve the levels of employee retention, quality of product and an increased in the levels of satisfaction among customers [16]. High engagement will reduce absenteeism, increase in employee effort and productivity, increased in productivity and many more [10]. Employees who are engaged in their work tend to make personal sacrifices for the organization. Other than that, these employees will relate themselves to the organization. They will feel that they belonged to the organization.

As for the measurement of engagement levels among individuals and employees, many models have been developed. One of the models focused on the psychological state of individuals. For employees to be engaged, there are three main psychological conditions that are important which are meaningfulness, safety and availability [17]. Engagement can also be categorized into vigour, dedication and absorption [18]. Vigour is the feeling of an individual when they experience physical strength, emotional energy and cognitive liveliness [18]. Dedication is the feeling of giving an impact, inspire and the pride in doing a task while absorption, in the other hand, is the level of concentration an individual give towards their tasks [15].

The current levels of engagement among generation Y is the lowest compared to the other generations [4]. This shows that generation Y individuals are not comfortable with the structure of the organizations they are working in. Misunderstandings, miscommunications and unproductivity that occurs in the organization are some of the reasons [19], other than having their demands go unacknowledged.

A research has been done studying the effects of new ways of working towards increasing employee engagement. The report stated that organizations should engage employees that are open to change and are exposed to technology. Generation Y are the ones suited to the description. Creating this new working environment where employees can be engaged, communicative, and interactive other than enjoying and feeling fulfilled with their work will enhance the services and experiences stakeholders obtain from the organizations [20].

### ***Internet of Things***

Internet is considered as a vital part in life of any individual. Internet is a way to connect and share thoughts, words, information, experiences and many more to anyone around the world

[21]. Internet of Things involves interconnected objects that harvest information from the environment, interacts with the environment and, by using the internet, provide information, analytics and communications to the users [22] and [9]. The Internet of Things, thus, connects people and provides them with access to valuable information that is necessary and vital for their everyday lives easily [22]. Hence, it is vital to study on the influences Internet of Things have on individuals and the aspects of these influences.

The connectivity between the internet and the devices will make life easier for people by anticipating and fulfilling the needs of users and individuals [23]. Internet of Things made it possible to integrate and communicate between the current devices and even future devices to ensure that users will receive all the data that are necessary from all of their devices [24]. In the perspective of suppliers, connected products will provide the suppliers with constant updates and access to the data on the application, wear and tear, the different features and other necessary information. With these data, suppliers will be able to gather the information needed in order to develop better products in the future. Other than that, connected devices will enable the organizations to develop better products and services where maintenance and development can be done based on actual requirements. The software of the connected devices can also be updated with more easily compared to when it is not connected [25].

Connected devices allow the collection of information and easier identification of the problem that has occurred. Information collected can range from the performance, energy usage and the environment of the devices [9]. Another benefit of Internet of Things is the ability in locating devices that is faulty or in good shape. Since the devices are connected, the technicians will be aware of which devices and where the faulty devices are located [25]. Internet of Things gives organization benefits in terms of monitoring and controlling devices, services, products, decision making other than assisting in sharing and collaboration of information [9]. With the improvement in the processes involved in an organization, the performances of the individual employees and their feelings towards their work will be influenced.

Based on some past researchers, internet technology have the potential to improve the economy, social life, organization culture and enhance the performance of organizations [21]. Currently, smart devices have been changing our daily lives, making it more interactive and informative [22]. By being aware of the information that is crucial, individuals will be able to react and ensure the performance of their work and tasks [26], improving the performance of the organization they are in, at the same time.

### **Theoretical Framework**

The framework of the research would be based on past models developed. TAM and UTAUT models are chosen for this research due to their emphasis on user behaviours towards the system. Other models focused on the individuals' psychology instead of behaviours and experiences with the use of the system.

Employee engagement can be measured by using several models. The model that will be utilised in this research is the model comprising of the cognitive, emotional and physical factors of engagement. There is a need to drive personal energies into the aspects of cognitive, emotion and physical labours to attain the state of engagement [27].

Table 1: Conceptual Framework

Factors	Reasons
Performance Expectancy (TAM & UTAUT)	Determine whether IoT helps in improving performances [28].
Effort Expectancy (TAM & UTAUT)	Identify whether IoT is easy to use and free of effort [29].
Facilitating Conditions (UTAUT)	Determine the levels of effect on the availability of resources have towards the acceptance, adoption and usage of IoT
Attitude towards using IoT (UTAUT)	Determine how the respondents feel towards the adoption and usage of IoT [30].
Perceived Enjoyment (UTAUT)	Determine the levels of enjoyment felt by the users of IoT
Employee Engagement	Identify the levels of attachment an employee has towards the job.
Acceptance, Adoption and Use	Adoption will change and improve the organization, thus, increase the engagement among employees.

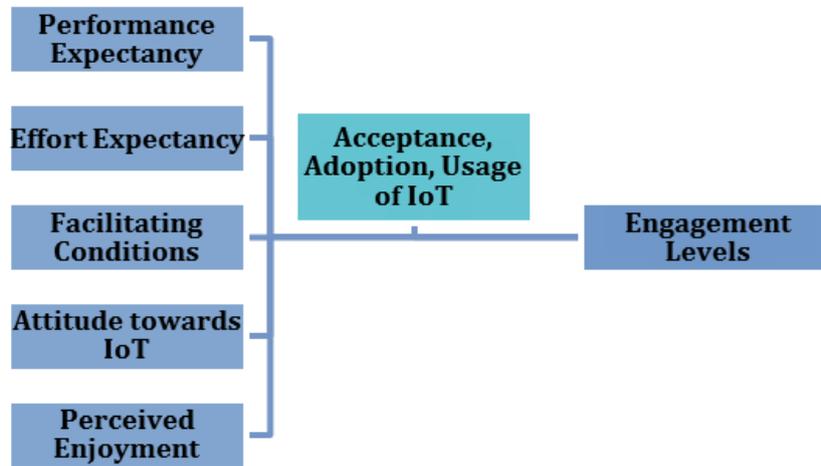


Figure 1: Conceptual Framework

### Conclusion

This study aims to enhance the understanding on the benefits IoT can provide towards the levels of engagement among the employees. Employees tend to be more engaged when the workplace they are in involves the use of IoT. Organizations that are able to provide a workplace that adopts the use of IoT will be able to increase the levels of the engagement among the employee. This area of study should be researched further and thoroughly to ensure that the factors and attributes discussed in this study can be implemented and adopted well to reap the benefit from it, thus improving the performances of many organizations.

The success of the research will benefit various parties that includes:

#### *Contribution to the managers*

Managers will know where to invest in order to improve the levels of engagement among their employees and at the same time retain the talents that they have in the organization.

#### *Contribution to the company*

Understanding the ways Internet of Things influence the levels of engagement among employees will enable the company to strategize and improve the employees' engagement levels.

***Contribution to the stakeholders of companies***

Having a company with engaged employees will ensure that the employees are able to service the customers better. Stakeholders will be more satisfied with the services that they received.

***Contribution to the employees***

Being engaged, employees will be able to perform at their best and ensure that the services they provide to the stakeholders of the organization are of high standards.

The survey will be limited to generation Y employees only. The other generation will have a different view on the usage and influences of IoT in the workplace. This limitation reduces the view the researchers will have on the study.

The research should be conducted among other generations, generation X, baby boomers and the current generations to differentiate the needs and wants of the various generations. This will enable the researchers to compare the views of the different generations.

Different roles will also have different perspectives on the influences of IoT. Different organization will also have different views on the aspects that is being researched. An organization that have successfully implemented IoT systems in the organizations will have a different view from organizations that are not utilising any IoT systems.

Researches that are segregated and specialized into the different job roles that are available will enable the researchers to determine the impacts and influences IoT have on the different job roles. The different work positions will give the researchers a wider view on the influences IoT might have on the levels of engagement among all the different job levels in an organization.

Other than that, the research should also target and differentiate the organizations that are implementing IoT in the workplace with those which have yet to adopt IoT in the organizations. This segregation will enable the researchers to differentiate the perspectives of employees that are using IoT systems in their workplace with those who are not using IoT systems.

***Longitudinal study***

Time changes the perceptions of the respondents towards the benefits of IoT in the workplace. This research should utilize the use of longitudinal research method to identify the influences IoT have on the levels of engagement better. The study can be done to research on whether there is significant impact of IoT adoption in the workplace on the levels of employee engagement, before and after the implementation of IoT in the workplace.

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# Islamic Working Environment, Organizational Commitment and Employee's Job Satisfaction and Performance in Malaysia Service Industry: A Conceptual Paper

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## Abstract

**Purpose:** The purpose of the study is to proposed a conceptual framework by including organizational commitment as the moderating variable to the relationship between Islamic workplace environment, job performance and job satisfaction

**Design/methodology/approach:** The paper is construct purely through the review of previous literature review from academic journals from various platform and search engine. The paper also will take newspapers article to be the secondary data to support the researcher arguments.

**Research limitations/implications:** Since this is a conceptual paper, further investigation is necessary to confirm the framework and ensure examined the effect of the variables. Future researchers are recommended to conduct empirical research for the proposed framework.

**Practical implications:** This paper will hopefully provide enlightenment to Malaysia's service industry on the importance of providing Islamic working environment to their employees in order to encourage organizational commitment, increase job performance and job satisfaction among them.

**Originality/value:** This research will provide new body of knowledge in the management field by proposing new conceptual framework on organizational commitment as the moderating variable. Apart from that, there are very limited study that proposed Islamic working environment, organizational commitment, job satisfaction and job performance as their conceptual framework especially in Malaysia's service industry.

**Keywords:** Islamic Workplace Environment, Organizational Commitment, Job Satisfaction, Job Performance

## Introduction

Employees are tangible assets of organizations. Previous studies agreed that employees show great commitment with high motivation when the organization fulfil employees' needs and expectation (Haar & Spell, 2004; Salahudin, Baharuddin, Abdullah & Osman, 2016). However, in organization management, several elements somehow have been excluded from the routine

especially among Muslim employees. There are a lot of cases regarding to the dissatisfaction of employees in performing their job. Some organization did not considered employees' religious belief and culture lifestyle. For example, a few hotels did not allow their Muslim women receptionist to wear hijab (Jaafar, 2017). It is believed that employees who are supported by Islamic work environment eventually show their commitment to their organization (Sahraei, Alipour, & Alipour, 2016). Based on a previous study, employees with high Islamic work environment in terms of ethics show greater loyalty and engage with the organization (Salahudin, et al, 2016) indirectly enhance the performance of the companies. Researchers viewed the suitability of work environment in Islamic perspective is able to improve the organizational commitment and lead to job satisfaction as it is comprehensive, moderate and realistic (Al-Aidaros et al., 2013). Islam is particular about honesty and fairness in transaction activities thus requires highly ethical businessman to be involved in business (Kaliffa, 2003).

Workplace environment, which includes the physical environment, dress code and job nature can affect employees' job performance and satisfaction (Raziq & Maulabakhsh, 2014). Thus, failure to understand and fulfilling employee's need can lead to poor employee's job satisfaction and job performance. For example, the religious leader of Perlis, Datuk Dr Mohd Asri Zainul Abidin has raised his concern on Malaysia Airlines (MAS) stewardess dress code and work nature when they are force to wear tight dress, not allowed to wear hijab and serve alcohol to the customers. According to him, it is an issue that always being brought up by the Muslim stewardess (Abidin, 2016). Thus, the issue has affected the job performance and job satisfaction of the stewardess.

Although, past researchers have done tremendous amount of research on the effect of workplace environment on job satisfaction and job performance but very few have explored this concept by incorporating Islamic values into their framework. In order to address this issue, this study will look into this perspective and explore the relationship between Islamic working environment and employee's job satisfaction and job's performance. Another issue that will be addressed through this paper is this research will explore the function of organizational commitment as the moderating variable. Past research shows that organizational commitment as the result of job satisfaction and job performance (Subramaniam & Mia, 2003; Jernigan et al., 2002). However, this research intention is to examined the role of organizational commitment in strengthening the relationship of the proposed independent variable and dependent variables based on the justification that employees are expected to show their commitment when the employers are flexible in fulfilling intended working environment (Choo, Desa & Asaari, 2016). Thus, the research objectives and research questions for this research are:

Research Objectives	Research Questions
To examine the effect of Islamic workplace environment on job satisfaction and job performance.	Does Islamic workplace environment have a positive relationship with job satisfaction and job performance?
To examine the moderating effect of organizational commitment on the relationship between Islamic workplace environment, job satisfaction and job performance.	To what extent does Islamic workplace environment, relate to job satisfaction and job performance as moderated by organizational commitment?

This research was conducted through a review of academic journals on “workplace environment”, “organizational commitment”, “job satisfaction” and “job performance”. The articles will then be analyzed to find the titles, abstracts, keywords, frameworks as well as headings and sub headings. To gain a better understanding on the concept, a thorough review of the relevant journals will be done since 1974 to 2018 and the relevancy of previous studies and credentials of the authors have become the main selection criteria for the study.

## **Literature Review**

### **A. Job Performance**

In order to maintain a good work environment and keep up with the organization’s development, it is very important for organizations to make sure its performance management system works as a management device (Kamoche, 2001). Excellent employee’s performance management system has a positive relationship with the organization’s effectiveness (Stanto & Pham, 2014).

Job performance has been discussed vastly by the researchers however, there is limited number of consensus in term of the definition. According to Rotundo and Sackett (2002), job performance is defined as employee’s initiative that contributes to achieving organization’s goal. Employee’s job performance has a positive effect on organization’s revenue. Therefore, it is very important for the organization to ensure its employees give their best effort to ensure the success of the organization. Sinha (2004) argued that job performance is the extra miles taken by the employees that result in the increase of organization’s productivity. Mavor, Broderick and National Research Council (1991) mentioned that job performance can be measured using three main key indicators which are outcomes, behaviors and personal traits. Howell and Higgins (1990) added on the measurement by proposing two more indicators which include employee’s conflict management and competency. Stup (2003) suggested work environment as one of these factors that lead to employee’s job performance. Therefore, it is very important to look into the effect of work environment on job performance by incorporating Islamic values into the framework.

### **B. Job Satisfaction**

Job satisfaction is defined as a combination of either positive or negative feelings of employees towards the organization. This term also relates to the expectations of the employee towards the organization and the actual match of the real rewards that the employee received in return (Aziri, 2011). According to Davis and Nestrom (1985), job satisfaction is closely related to the behavior of the employees in the workplace. Satisfied employees will be more productive and enthusiastic at work. According to George and Jones (2008), job satisfaction is the sum of the feeling, culture and beliefs that the employees have on their current job. Hence, it is vital for the organization to treat their employees at their very best to ensure that the organization could achieve competitive advantage (Aziri, 2011). According to Bisk (2018), there are all together four implications of job satisfaction amongst employees. Firstly, it will lower the rate of turnover and create loyalty within the organization where if the employees are satisfied with their work, they will stay loyal with the organization for a longer period. Secondly, it will lead to higher productivity as employees who are satisfied with their job will give their very best to perform their job. Lastly, the revenue of the organization will increase as it is proven that employees who are satisfied will create a stronger bottom line which comprises of economy, environment and social gains which are vital in determining the business sustainability.

In general, there are two methods of measuring job satisfaction which are Minnesota Satisfaction Questionnaire and Job Description Index. The most widely used technique is job description index measuring factors like nature of the work, promotion and relationship amongst co-workers (Aziri, 2011). According to Yusof, Yusof and Abbas (2017), Islamic

working environment significantly contributes to the job satisfaction amongst employees within the organization as Islamic working environment encourages the employees to work even harder every day and via this environment also, the organization always appreciates the employee's effort. Within the Islamic working environment, respecting each other's feeling is utmost important in ensuring the satisfaction amongst employees towards the organization.

### **C. Islamic Workplace Environment**

Workplace environment is defined as the surroundings of the work place (Rezaul, 2014). However, Bhola (2015) argued that workplace environment should be interpreted beyond the physical facilities provided by the employer and he classified workplace environment into four categories which are physical environment, social environment, psychological environment and job related issues. In Islam, providing a positive workplace environment is the responsibility of the employers.

Providing a religious friendly working environment is very important as it may provide morale and motivational support to the employees. Apart from providing assurance and comfortability for the employees to practice their faith. Hassan, Mohammad, Mohd, Rozilah and Ali (2015) wrote about the importance of religion in ensuring employee's retention at the workplace especially to Muslim; the researchers wrote about the feasibility of Islamic accommodation in the workplace and its effect on employees leaving the company even though they are happy with their jobs. A report by the Society for Human Resource Management (2011) shows that a workplace that allows employees to practice their religions, wearing religious symbols and dress code, or any form of religious expression is most likely to retain the employees in the company. To provide Islamic workplace environment, an organization should understand the basic needs of Muslim employees. The easiest way to understand the needs is to respect their obligations as a Muslim. The main obligations of a Muslim are to pray five times a day, fast in the month of Ramadhan, conduct alms-giving (Zakat), and perform pilgrimage to Mecca. Therefore, in order to create an Islamic workplace environment, the employees need to provide necessary facilities such as designated prayer room and allocate prayer time for their employees. Sacirbey (2011) elaborated on how Chicago Health Insurance reserve its meeting room twice a day for thirty minutes for their Muslim employees to be utilized as a praying room. Accommodating is not enough; the employers should encourage employees to fulfill their obligations as a Muslim. According to Yazdi, Jafarzadehpur, Mirzajani and Nematy (2011), fasting individual's vision might be slightly affected as a result of food restraining. Thus, the employers should provide a moral support and be more understanding towards their employees in the month of Ramadhan. Apart from that the employer can also provide religious class for interested employees during lunch time to enrich employee's Islamic knowledge which in turn might increase employees' sense of responsibility and commitment towards their job.

Positive Islamic workplace environment can also be created by showing appreciation to the employees especially on Muslim's festive seasons and holidays. Two main religious holidays in Islam is Eid-ul-Fitr and Eid-ul-Adha. Employers should provide a time off for their Muslim employees to celebrate and spend their time with their family. Giulano (2008) argued Tyson Foods, granted a paid time off to their Somalian employees on Eid-ul-Fitr. Apart from that, other important initiatives can be done by an organization to create Islamic workplace environment are to allow the employees to express their belief through their dressing or provide a Sharia compliance uniform especially for the female Muslim employees. Moreover, Muslim employees should be prohibited from serving non-Halal products to the consumers such as alcohol, pork and etc. Last but not least, it is very important for the organization to know Muslim employees' dietary restriction especially when they provided free food during any formal occasion to show a sign of respect to their employee's belief. Positive workplace

environment can overcome all the productivity related problems such as absenteeism, sick leave and many more (Whitmore, 2015). According to Naharuddin and Sadegi (2013), employee's job performance has a positive relationship with workplace environment. Chandrasekar (2011) argued that excellent workplace environment will affect the employee's motivation and productivity. One of the ways to provide an excellent workplace environment is by allowing the employees to express their belief systems. Gelb and Longacre (2012) wrote, allowing the employees to practice their religion will increase their job performance. Thus, the first proposition is created:

H1: Islamic working environment has a positive relationship with job performance

Shravasti and Bhola (2015) argued that work environment plays an important role in fulfilling employee's job satisfaction. Arman, Mastura, Shardy and Samsiah (2008) mentioned excellent workplace environment may lead to job satisfaction. Grim (2015) argued that workplace that offers religious classes and promote flexibility in religious practices will result in a higher job satisfaction among the employees. Therefore, the second proposition is created:

H2: Islamic working environment has a positive relationship with job satisfaction

#### **D. Organizational Commitment**

The concept of organizational commitment has been long discussed in the academic field. Porter et al. (1974) defined the concept as an individual identification and involvement of their organization. The term was later being elaborated as employee's emotional attachment with their organization due to the recognition of organization's goal (Meyer & Allen, 1974). Organizational commitment plays a vital role in making sure the employee will stay with the organization, motivate the employee to go extra miles and understanding the organization's core values (Mowdy et al., 1979). Apart from that, organizational commitment also helps the employee to achieve challenging goal that has been set up by the organization because it will push them to go beyond their job description (Klein et al., 1999). Most importantly, organizational commitment will result in positive work behavior such as increased job performance, building employee's satisfaction and low turnover (Cohen, 2003). In past research, many studies have been done to examine the relationship between work environment and organizational commitment. Zafar and Chunghtai (2006) mentioned that work environment is the antecedents of organizational commitment. This statement was cited by Baher and Ziabari (2014) through Delgoshae, Tofighi and Kerman (2008) research that found organization that enhances work place surroundings will increase employees' commitment towards their organization. According to Yusof, Yusof and Abbas (2017), the implementation of Islamic working environment will make organization appreciate the effort of the employees which will create a responsibility for the employees to give their full commitment to the organization. Based on this, below proposition is created for this research:

H3: Islamic workplace environment has a positive relationship with organizational commitment

Based on the above discussion, it can be simplified that organizational commitment can result in a greater job performance among the employees. Many researchers argued that organizational commitment is the main contributing factor to job performance (Subramaniam & Mia, 2003; Quirin et al., 2000; Nouri & Parker, 1996). According to Chong and Eagleton (2007), employees that have a strong connection with their organization will contribute more and provide extra effort to achieve organization goals because they believe that their

performance will directly contribute to the organizations performance. Quirin et al. (2000) mentioned that employees who show high level of commitment will also provide high job performance. This discussion leads to the next proposition of this study, which is:

H4: Organizational commitment has leads to positive relationship with job performance.

Tremendous amount of research has been done in order to find the relationship between organizational commitment and job satisfaction (Jernigan et al., 2002; Lok & Crawford, 2001; Gaertner, 1999; Mowday et al., 1982). Although most of the research focuses on job satisfaction as the independent variables and organizational commitment as the dependent variables, Mowday et al. (1982) suggested to explore the relationship between these two variables in many other ways. Therefore, this research will analyze organizational commitment as the moderating variable to strengthen the relationship between Islamic working environment and job satisfaction. Based on the extensive literature review, the research proposition is as below:

H5: Organizational commitment have a positive relationship with job satisfaction

### Discussion and Conclusion

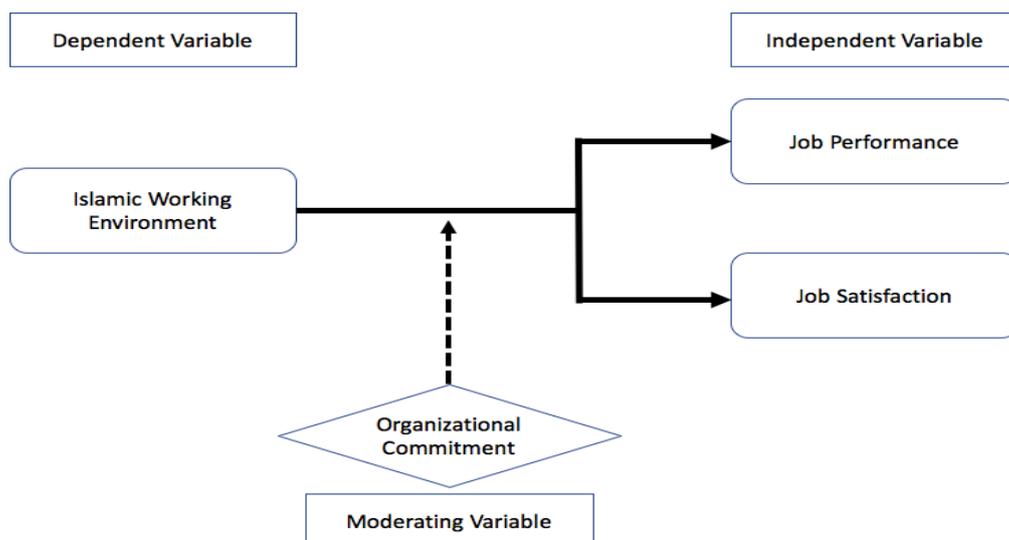


Figure 1: Islamic working environment, organizational commitment, job performance and job satisfaction framework

The proposed model is based on affective events theory by Weiss and Cropanzano (1996) which explain the relationship between emotions and feelings in the workplace and job performance, job satisfaction and behaviors. According to Weiss and Cropanzano (1996), an individual is influenced and influencing the workplace environment. The theory was chosen to serve as the framework because working environment that fulfills employees' expectations will be the main predictor to employees' job performance and job satisfaction. It explains the relationship between the working environment and employees' internal motivations such as job performance, job satisfaction and organizational commitment (Wegge, Van Dick, Fisher, West & Dawson, 2006).

The framework proposed includes Islamic values as part of the working environment concept introduced by the western scholars to understand the importance of Islamic values and how it can be incorporated into working environment. Moreover, it is important to create a relationship between Islamic workplace environment and job performance and job satisfaction especially for organizations that operate in Muslim countries. The framework will contribute to Islamic management body of knowledge. Although most of the research reported organizational commitment as the result of conducive workplace environment (Baher & Ziabari, 2014), this framework suggests that organizational commitment should be positioned as a construct that strengthens the relationship between Islamic workplace environment and employee's job satisfaction and performance.

Since organizational commitment is described as employee's attachment and behavior towards organization; organization that provides an Islamic workplace environment will create a sense of responsibility for their employees to be committed. Thus, employees' job performance and job satisfaction at the same time will be increased. Based on the discussion above, the research proposes organizational commitment as the moderated variable. Providing Islamic working environment is vital for an organization to fulfill its employees' needs and accommodate to its belief system especially when the organization has a majority Muslim employees. As a result, it is expected that the job satisfaction and job performance of Muslim employees will increase.

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# A Study on Academicians' Well-Being in Malaysian Universities: A Conceptual Paper

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## **Abstract**

**Purpose:** The purpose of this study is to draw attention to the current change of work nature of academicians and how this affects their work wellbeing. Numerous researches have reported on the increase in cases that involves poor well-being especially emotionally and psychologically amongst academicians. This has raised growing concerns not only in the higher education industry, but also being highlighted in countries such as the UK where the well-being of academics has surpassed the high-risk level.

**Design:** This study intends to employ Dana & Griffin's, model of wellbeing to gauge the effects of emotional labour on lectures wellbeing.

**Findings:** The study takes on a positive approach to seek interventions at organizational level to promote well-being of academicians, retain the attractiveness of the profession and sustain the business profitability of the universities.

**Research Implication:** The global scenario of decline in academician wellbeing serves an impetus to inquire on wellbeing of academicians in universities in Malaysia and consequently to seek organizational intervention strategies to mitigate the problem.

**Originality of study:** The present study focuses on the effects of emotional labour and wellbeing of academicians in universities in Malaysia, which has not much covered by earlier studies.

**Keywords:** Well-being, Emotional Labour, Higher Education

## **Introduction**

The study of well-being gained its momentum when it was presented in World Economic Forum Annual Meeting 2012 in Davos. The report titled "Well-being for Global Success" was launched (World Economic Forum, 2012) and it states that:

*Our well-being enables us to perform better at work and in our family life and community. Well-being increases the productivity of workers and the profitability of the companies they work for; individuals with high well-being produce more resilient families and happier children; citizens with high well-being strengthens our communities. (World Economic Forum, 2012).*

Since then, there has been many studies on well-being from varying perspectives including organization and employees. One of the reasons that well-being is much looked at is due to its economic consequences. The cost of not addressing well-being amongst employees for example has been estimated at 3.8 billion pounds per year in the UK (Chartered Institute of Personnel and Development, 2007), and over 450-550 billion dollars in the U.S. workplace,

mainly due a plunge in productivity (Gallup, 2013). Similarly, it is the case in Malaysia where according to findings from the Healthiest Workplace by AIA Vitality Survey 2017, it was found that Malaysian organizations suffered a productivity loss of sixty-seven (67) days per employee per year due to poor health and low well-being of employees (Azahar, 2017). Whereas in a study on well-being and burnout amongst Malaysian academics in private universities, it was found that most affected were amongst the younger (ages 31- 40) newly recruited lecturers and those who were holding junior academic ranks (Chen, Haniff, Siau, Seet, Loh, and Abd Jamil, 2014). Despite the burnout, academics were highly satisfied in their jobs, however, their scores on well- being were low. As a conclusion of this study, there were calls for future studies intervention strategies to equip lecturers with necessary skills to combat burnout because of its detrimental effects the well-being of students and lecturers (Chen et al., 2014). One of the reasons of academician's well-being is at stake is due to the changes in the work nature that is caused by commercialization of higher education, especially private higher education. The role that academicians play in today's commercialized universities seem to be complex and paradoxical. Academicians need to meet divergent expectations and must satisfy as well as negotiate the needs and values of multiple stakeholders. Increasing commercialisation in higher education has brought about significant changes to the work nature of academicians (Lynch, 2014; Berry and Cassidy, 2013; Gaan, N, 2012). These changes has also warranted the private higher education institutions to demonstrate accountability and efficiency, which are practices adopted from private corporations (Altbach, 2011; De Boer and Goedegebuure, 2009). Due to the necessity to function and behave like a corporation, the values of the traditional universities have been challenged (Lok, Alam and Idris, 2016). The nature of work of university lecturers in general and private university lecturers specifically have become emotionally demanding and stressful. The seriousness of the declining well-being is clearly seen from a report that was published by the University College Union (UCU) in the UK, which highlighted the continuous rise on stress levels of university lecturers that has been the highest compared to previous years. The stress levels had risen from 39% in 2012 to 48% in 2014 (UCU, 2014). The level of stress can be a taken as a reflection on the poor well-being of the academicians. In a health survey done by the Education Support Partnership, UK in 2015, found that 88% of those working in Higher Education had experienced a mental health issues in the last two years (Education Support Partnership, 2015). Amongst the reasons noted were academicians feel a lack of support, conflicting demands as well as the pressure to offer students an excellent and supportive learning experience (Education Support Partnership, 2015) as well as other job stressors. Apart from that as stated by Berry and Cassidy (2013) and Hatzinikolakis and Crossman (2010) the changing landscape of universities has caused intensification of emotional labor amongst academics.

## **Literature Review**

### ***Well-being***

Well-being has taken center stage in organizations today as there have been studies to show that there is a relationship amongst well-being and higher levels of engagement (MacLeod and Clarke, 2014), happier workforce (Dolan, 2014), resilient workforce (Brunetto, Teo and Shacklock, 2012) and retention (Soane, Shantz and Alfes, 2013). According to Peiro, Ayala, Lorette and Tordera (2014), there is a growing global interest particularly in the evaluating and monitoring of well-being (Diener and Seligman, 2004), as well as to the well-being of workers (Robertson and Cooper, 2010). There evidences that show that employees who achieve good standards of well-being at the workplace a likely to be more creative, more loyal and more productive than those who suffer from poor well-being (NEF, 2014). For the purpose of this study we will apply Dieners (2002) concept of well-being, where employees' attitudes and feeling about their work context is differentiated from job satisfaction because it encapsulates

more than an employee's satisfaction with the job and includes satisfaction with both tangible and intangible aspects of the work context. According to Wright, Powell and Ridge (2006) states that employees who are in jobs that require high emotional investment may have their well-being affected. Past researchers have identified that well-being affects job satisfaction (Wright and Cropanzano 2000; Brunetto, Farr-Wharton and Shacklock, 2011) and affective commitment (Brunetto, Farr-Wharton and Shacklock 2011b). Some studies have examined the relationships between emotional demands of the job and an individuals' psychological well-being (Yin, 2015). For example, a study by Le Blanc showed that emotional job demands significantly contributed to the prediction of burnout, even after controlling for quantitative job demands, or workload, and working restrictions (Le Blanc, Bakker, Peeters, van Heesch and Schaufeli, 2001). The study by Jonge, Blanc, Peeters, and Noordam, Hanneke (2008) found a positive association between emotional job demands and emotional exhaustion of health care workers. Taris and Schreurs (2009) found that high emotional job demands were significantly associated with reduced well-being. Whereas, using a sample of Belgian teachers, Näring, Vlerick, and Van de Ven (2012) found that the emotional demands of teaching significantly predict teachers' sense of emotional exhaustion, which is a construct of wellbeing. International surveys have shown that between 30% and 40% of teachers fall into burnout conditions, with many of them quitting the profession as a result (Beltman, Mansfield, & Price, 2011; OECD, 2005). Consequently, supporting well-being of those in teaching profession is becoming a priority in the critical agenda of various nations such as the UK (Deloitte, 2017), US (Berryhill, Linney and Fromewick, 2009) and Australia (McCallum et al, 2017). On a global front, there are research reports that the teaching profession is suffering a poor reputation and that academic institutions are losing their attractiveness as a workplace (McCallum, Price, Graham and Morrison, 2017). The literature indicates that emotional exhaustion and burnout are extensively experienced among professionals providing social and human services, including teachers at all levels of education (Skaalvik and Skaalvik, 2010). Amongst the studies of emotions and its consequences in the workplace, one that is recently studied about is emotional labour.

### ***Emotional labour***

Emotional labour is a regarded as a new job stressor that is common in the service industry especially in interactive service (Jeung, Kim and Chang, 2018) such as in the teaching profession (Fernet, Guay, Senécal and Austin, 2012; Yin, Hongbiao, 2012; Berry and Cassidy, 2013). According to Hirschfeld (1983) who first coined this term states that when one uses one's emotions to elicit an emotional response from the other and the use of the emotions are under the control of the organization or the management, then one is said to employ emotional labour. As highlighted by Van Gelderen, Konijn and Bakker (2011) emotional labour is pertinent in professions which deals with human service in which regular contact with clients (students) forms the integral part of the profession. Display of positive emotion by employees is directly related to customers' positive affect following service encounters, and to their evaluation of service quality. Emotional labour is typified by the way roles and tasks exert overt control over emotional displays (Constanti and Gibbs, 2004). According to Humphrey, Ashforth and Diefendorff (2015), emotional labour can foster both satisfaction and dissatisfaction for employees. Hulsheger and Schewe (2011) have pointed out that though there are many researches have investigated the link of emotional labour with well-being and different kinds of performance outcomes, yet there seems to be an inconsistency in the size and direction of the effects. Emotional labor is usually performed using three acting techniques which are Surface Acting, Deep Acting and Genuine Acting (Hochschild, 1983; Ashforth and Humphrey, 1993). When employees alter their outward appearance to simulate the required emotions—emotions that are not necessarily privately felt, they are said to be employing Surface Acting. The second acting mechanism is “deep acting.” Deep acting occurs when employees change

not only their physical expressions, but also their inner feelings. This can be done through imaging or recalling similar emotional experiences. Lastly is “genuine acting” mechanism which occurs when employees’ felt emotions are congruent with expressed emotion and display rules. In relation to emotional labour, there has been considerable evidence that emotional labor can be stressful and can undermine a worker's well-being (Naring, Briet and Brouwers, 2006; Yeong-Gyeong Choi and Kyoung-Seok Kim, 2015). Although, the relationships between emotional labor and well-being are complex, emotional dissonance which is a discrepancy between felt emotions and the emotion that is expressed or required to be expressed, has been consistently associated with lower assessment of well-being. According to previous literature reviews, studies of emotional labour in higher learning institutions and amongst academia are much limited (Berry & Cassidy, 2013; Yin, H, 2016) Though there are research on emotional labour conducted in schools, but unlike universities, schools are not thriving in service oriented arena where its working environment entails of competing and conflicting factors that makes it more emotionally demanding and subsequently effecting well-being of the lecturers.

### Conceptual Framework and Underpinning Theory



Figure 1: Conceptual Framework

As cited in Newnham (2010), well-being is closely related to work and health (Black, 2008) and it is very vital to any organization as it is costly to employees, employers, organizations. Although the definitions on well-being in quite broad and has many varied definitions. (Danna and Griffin, 1999) reference is still to the World Health Organizations definition which is that well-being is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (World Health Organization, 1948). Danna and Griffin (1999) use a conceptual framework that presents the antecedents and consequences surrounding health and well-being issues. The theory posits that the antecedents of well-being is classified under work setting, personality traits and occupational stress, whilst consequences of well-being are categorized under individual consequences and organizational consequences. For the purpose of this study, emotional labor will be operationalized as a construct of occupational stress. As emotional labour is a common feature in jobs that are associated with interactive human services and highly emotionally demanding. According to Waddell and Burton (2006) there are many evidences of relationship between work and well-being. In concurrence, Black (2008) posits that high levels of well-being have a positive effect on an organisations’ productivity and profitability, in which employees experience a happier, healthier, more engagement and more presence in the workplace. There is a growing body of evidence that indicates the positive association between higher well-being and higher productivity (Robertson and Cooper, 2011; Ford, Cerasoli, Higgins and Decesare, 2011). Besides its direct impact on psychological and physical health, employees’ productivity and performance also suffer as an indirect effect of poor wellbeing. As stated by Peiro et al., (2014) in their study, well-being and performance exist as a symbiosis, and one cannot exist without another and that well-being and performance influence each other over time (Hart & Copper (2001). As cited in McCallum et al., (2017) there is a tangible link between employee well-being and effectiveness in the workplace. Employers now realise that promoting positive well-being in the workforce could lead to concrete business outcomes, including improved productivity and performance (Teacher Support Cymru, n.d.)

### Discussion and Conclusion

The purpose of this study is to highlight a growing concern on the well-being amongst academics and its consequences against job stressors such as emotional labour. The academia has already been affected by the escalating cases of mental illness and depression (Kidger, Brockman, Tilling, Campbell, Ford, Araya, King and Gunnell, 2016) increased absenteeism (Nguyen and Johnson, 2014), depression (Yoon Kim, 2013), intentions to quit (Anafarta, 2015) and high attrition rates (Curry & Brien, 2012). In view of the growing problems it becomes an urgent need for academic institutions to address the urgency to put in place interventions that is able to address the burgeoning problem of decline in academician wellbeing. Research reports, that the stakes are high for ignoring academician well-being as it has been proven empirically that academicians' well-being also influences students' well-being (McCallum and Price, 2010), as well as to their academic performance, retention and higher order learning (OECD, 2015). In addition, the quality of faculty in academic institutions had a weightage on the student's retention in higher academic institutions (Carter and Yeo, 2016). In a recent study of workplace support in Malaysian organizations, it was highlighted that organizations must increasingly start to consider psychological aspects of employee development, such as work-life balance to ensure employee well-being as an important component of its national human resource development policies and programmes as a means to attract and retain talent for its knowledge economy vision (Wee & Pervaiz, 2015). Besides studying academician's well-being, one of the most important interest of this research is to find interventions to mitigate the ill effects of emotional labour and to boost positive effects. As stated by Naghieh, Montgomery, Bonell, Thompson and Aber (2015) current initiatives that address well-being are directed more towards the individual and therefore do not tackle the causes of it in the workplace. Instead suggestion on organisational-level interventions will provide potential avenues for proactive approaches to wellbeing. Roslender (2009) defines well-being as a fundamental aspect of organization's human capital, and thus it is the responsibility of the organization to rightly manage employee well-being as it has become a core for high performing organizations (British Psychological Society, 2010).

The well-being of those in the teaching profession is deeply connected to the quality of their work (CESE, 2014). Well-being of academicians becomes a critical element to the performance of academicians, students and the organization. Academic work which used to be traditionally and comparatively a job that is less stressful is amongst a highly emotionally demanding and stressful profession today. Professions involved in service oriented private practices and professions which are highly interactive such as teaching deals with intense emotional labour that can be detrimental to wellbeing. Thus, this study hopes to serve as an impetus to carry out further empirical research that would contribute towards finding organizational support to improve academician well-being, the management of emotional labour and overall business sustainability in private higher education institution particularly in the Malaysian context, as research is currently sparse in this area. Many of the past researches are dedicated towards the improvement of teaching, but not much on those involved in imparting this knowledge; the academicians. As stated by Kinman (2012), universities put much considerable time and effort into enhancing the student experience and rightfully so, but little consideration appears to be given to the implications of exhausted, demoralized and dissatisfied academics.

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# Intention to Purchase Safer Car in Indonesia: An Application of Theory of Planned Behaviour

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## Abstract

Safer car is one of the five pillars in reducing traffic accidents. Hence, this paper is an attempt to analyze consumers' preferences in safer car purchasing within Indonesia. Primary data were collected and 500 respondents were selected. The data were analyzed using Multiple Linear Regression in IBM SPSS Statistic 23 to determine the relationship between attitude, subjective norm, and perceived behavioral control towards intention to purchase safer car. The findings are attitude, subjective norm and perceived behavioral control positively influence the intention in buying safer cars.

**Purpose:** This paper aims to establish the relationship between attitude, subjective norms, and perceived behavioral control towards behavioral intention to purchase safer cars.

**Design/methodology/approach:** Survey is conducted on 500 Indonesians about their behavior in safer car purchasing by using self-administered questionnaires.

**Findings:** Attitudes, subjective norm and perceived behavioral control influence the purchase intention positively. Attitude have the strongest influence, followed by perceived behavioral control and subjective norm.

**Research limitations/implications:** Other factors that may also contribute to safer car purchase intention may not be taken into account since this paper is conducted within theory of planned behavior context.

**Practical implications:** The result of this findings confirm that positive attitude will increase the intention to buy safer cars. Government, car manufacturers, media, and road safety stakeholders that are wishing to improve lives can use this outcome to improve positive attitude among consumers.

**Originality/value:** This study is one of the few to examine what influences consumers to have the intention to buy safer cars in Indonesia.

**Keywords:** ASEAN NCAP; Car Safety; Purchase Intention; Road Traffic Accident; Theory of Planned Behavior

## Introduction

Road accidents have been and will continue to be one of the world's most critical problems that can put life of many people in jeopardy. Indonesia is listed under the traffic-related death countries with 31,234 death rates reported and according to World Health Organization (WHO), the real figure could be as high as 47,673 (Indriyatno, 2013). Approximately

104,211,132 vehicles in Indonesia were registered in 2013. The highest registered vehicles are motorized 2- and 3-wheelers, followed by cars and 4-wheeled light vehicles, heavy trucks, buses and others (Broderick, 2016).

In 2017, residents in West Java were both surprised and disturbed when 13 people died due to a road accident involving a tour bus, three cars and a few motorcycles on Jalan Raya Puncak, West Java on April 30<sup>th</sup> (Saudale, 2017). Saudale further adds that the bus most likely had a malfunctioning brake and was the main cause of the fatal accident. In particular, it is vital for safety features to be taken into account due to the upsurge fatal road accident cases because unsafe vehicle can be the biggest culprit in this crisis.

To prevent road accidents from expanding in numbers, the UN General Assembly declared The Decade of Action for Road Safety in March 2010 to promote a healthy life by reducing global traffic fatalities by 2020 (WHO, 2010). Safer vehicle is one of the five pillars or action plans to improve traffic safety while the other four are safer traffic management, safer road, safer driver and faster response on post-crash treatment. Indonesian State Ministry of Development Planning (Bappenas) is currently implementing these five pillars. Statistically, up to 5 million lives and 50 million injuries of Indonesians can be prevented through The Decade of Action for Road Safety (Korlantas Polri, 2013).

### Literature Review

#### *Theory of Planned Behavior (TPB)*

In 1985, the Theory of Planned Behavior (TPB) is proposed by Icek Ajzen that is developed from the theory of reasoned action (Ajzen, 1991). TPB is implemented when a researcher aims to understand consumer's intention or decision making. Human behavior is difficult and complex to be understand but it can be interpretable with an extreme concern on biological and environmental factors on behavior. Therefore, social attitude and personality trait played a big part in explaining human behavior. Figure 1 depicts the conceptual framework of theory of planned behavior for this research.

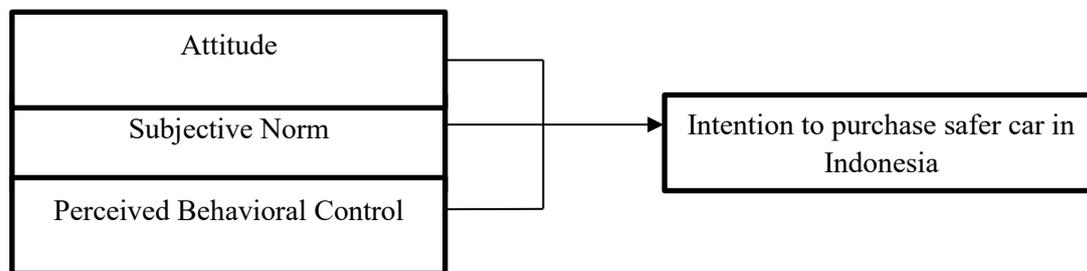


Figure 1: Conceptual Framework of Theory of Planned Behavior

The first predictor variable is Attitude. Attitude is when a person evaluates their behavior of interest favorably or unfavorably (LaMorte, 2016). Secondly, Subjective Norm is a belief for a person to perform a given behavior as expected by significant others (Ajzen, 2012). Significant others refer to the group of person that can influence one's intention in making decision. Other than that, subjective norm and attitude is independent. People can favor a given behavior but perceive social pressure not to perform it. Lastly, Perceived Behavioral Control is the perception of the ease or difficulty of a person to perform the behavior of interest. LaMorte adds that a person usually results having varying perceptions of behavioral control depending on the situation.

To apply the theory of planned behavior, construct domain and measurement items are adapted from several researchers (Khairil Anwar, Arokiasamy, Mohd Hafzi, & Chieng, 2016; Kelkel, 2015; Hong, Khan, & Abdullah, 2003; Emsenhuber, 2012; and Moons & De Pelsmacker, 2012) is shown in Table 1.

Table 1: Adapted Construct Domain and Measurement Items

Construct	Literature Source
Attitude (ATT) [4 items]	ATT1 (Kelkel, 2015) ATT2 (Moons & De Pelsmacker, 2012) ATT3 (Kelkel, 2015; Moons and De Pelsmacker, 2012) ATT4 (Kelkel, 2015; Moons and De Pelsmacker, 2012)
Subjective Norms (SN) [6 items]	SN1 (Kelkel, 2015; Moons and De Pelsmacker, 2012) SN2 (Kelkel, 2015; Moons and De Pelsmacker, 2012) SN3 (Explanatory study) SN4 (Moons and De Pelsmacker, 2012) SN5 (Explanatory study) SN6 (Explanatory study)
Perceived Behavioural Control (PBC) [5 items]	PBC1 (Moons and De Pelsmacker, 2012) PBC2 (Ajzen, 2013) PBC3 (Hong <i>et al.</i> , 2013) PBC4 (Hong <i>et al.</i> , 2013) PBC5 (Explanatory study)
Purchased Intention (PI) [3 items]	PI1 (Emsenhuber, 2012) PI2 (Emsenhuber, 2012) PI3 (Emsenhuber, 2012)

### ***Descriptive Statistic***

According to Jaggi (n.d), descriptive statistic summarized and presented a collection of data in a clearer and informative way from the given numerical and graphical procedures. This method helped to transform a large amount of data into a simple summary. This method has been used to describe the demographic profile in this study. Since descriptive statistic produces a numerical and graphical output, this method is suitable for the purpose of describing.

### ***Multiple Linear Regression***

Multiple regression analysis is one the most widely used of all statistical methods. A multiple regression model is a regression model with a single dependent variable and more than one independent variable (Tranmer & Elliot, n.d.). As for this research, Attitude (ATT), Subjective Norms (SN), and Perceived Behavioral Control (PBC) are the independent variables that is used to predict Purchased Intention (PI) which is the dependent variable.

### **Study Hypotheses**

*H<sub>1</sub>: There is a positive correlation between attitude and intention to purchase safer car.*

*H<sub>2</sub>: There is a positive correlation between subjective norm and intention to purchase safer car.*

*H<sub>3</sub>: There is a positive correlation between perceived behavioral control and intention to purchase safer car.*

### **Method**

The study was conducted in which yielded N = 500 datasets. A self-administered questionnaire has been distributed to selected sample consisting of engineers, government officers, lecturers,

and self-employed person. There were Likert-type scales of questions about respondent's experience in road traffic accidents and their intentions to purchase safer cars. Respondents were asked to range themselves such as from strongly disagree (1) to strongly agree (5), very unimportant to most important, very impossible to very possible and other ranges. To achieve a complete and successful research, data analyses such as descriptive statistics and multiple linear regression were used.

### Findings

Information from 500 respondents from this study were analyzed. 358 of the respondents are male (71.6%) while the other 142 respondents are female (28.4%). For the experience of getting into accident before, 353 respondents claimed they never had an accident while the other 147 claimed they have had an accident. Table 2 presents the profile background of the respondents.

Table 2: Profile of Respondents

Criteria	Category	Number	Percentage
Gender	Male	358	71.6%
	Female	142	28.4%
Age Group	≤24	35	40%
	25-30	124	24.8%
	≥31	341	68.2%
Education Level	Secondary School	114	22.8
	Diploma	115	23.0
	College/University Graduate	222	44.4
	Postgraduate	49	9.8
Experience of getting into an accident	No	353	70.6
	Yes	147	29.4

Multiple linear regression analysis is performed to achieve the purpose of this study in identifying the relationship between determinants and the dependent variable.

Table 3: Multiple Linear Regression Coefficients

Variables	$\beta$	t	Sig
Attitude	0.343	12.293	0.000
Subjective Norm	0.078	4.383	0.000
Perceived Behavioural Control	0.203	7.634	0.000

Conventionally, alternative hypothesis will be accepted if the significant value is lower than 0.05 (Ferreira & Patino, 2015). Hence, by referring to the significant values, all the alternative hypotheses are true and can be accepted. Table 4 shows the meaning of the  $\beta$  values.

Table 4: Meaning of Regression Coefficients

Variables	Conclusion	$\beta$ values
Attitude	Significant	As attitude increases by 1, the purchased intention will be increased by 0.343 while other variables are held constant.
Subjective Norm	Significant	As subjective norm increases by 1, the purchased intention will be increased by 0.078 while other variables are held constant.
Perceived Behavioural Control	Significant	As perceived behavioural control increases by 1, the purchased intention will be increased by 0.203 while other variables are held constant.

Table 5 shows the findings for each alternative hypothesis.

Table 5: Conclusion of hypothesis testing

Alternative Hypothesis	Conclusion
H <sub>1</sub> : Attitude positively influences consumer's intention in safer car purchasing	Accepted
H <sub>2</sub> : Subjective norm positively influences consumer's intention in safer car purchasing	Accepted
H <sub>3</sub> : Perceived behavioural control positively influences consumer's intention in safer car purchasing	Accepted

### Discussion and Conclusion

The main objective of this research in analyzing the consumer's intention to purchase safer car in Indonesia has been successfully achieved by using the Theory of Planned Behavior. Attitudes, subjective norm and perceived behavioral control influence the purchase intention positively by using Multiple Linear Regression. There is a moderately positive relationship between attitudes and behavioral intention to purchase safer cars. Attitude is also the dominant factor in predicting the dependent variable. Consumers who are more concern about the importance of driving safer cars on the roads will have a higher intention to be involved in safer car purchasing. It is shown that consumers' attitude is very important. Thus, more programmes such as raising awareness about safe cars should be implemented to give consumer a better exposure about why everyone needs to drive safe cars.

Subjective norm has a weak positive relationship toward the dependent variable. This shows influence and encouragement from family members, coworkers, and friends are important to persuade them in owning safer cars. Perceived behavioral control is another determinant for purchase intention. The result from this study indicates that perceived behavioral control possesses a moderate positive relationship with behavioral intention to purchase safer cars. Car manufacturers play a big role in persuading them to have safer cars by considering the tax and insurance reduction, and safety features that is offered in vehicles.

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# Creating Bsetter Humans towards the Sustainable Competitive Aadvantage of Small and Medium-sized Aaccounting Firms in Malaysia

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## **Abstract**

You will find this study a bit different than others in the sense that it pierces directly into the human hearts. The world current economy is full of mysterious and uncertainty. There are plenty of different perspectives, but who can guarantee that they are right? The root of the problems of all issues generally come from the human heart. If we able to deal with human issues, it sorts out almost all the problems. The purpose of this study is to determine the contributing factors towards the sustainable competitive advantage (SCA) of small and medium-sized accounting firms (SMPs) in Malaysia. It aims to have a long-term impact on the prospects to the practitioners and the accounting professions. It becomes an attention to the world when numerous accounting scandals being published, and they jeopardized the accounting professions' reputations. There are a few undisclosed cases especially it dealt with compliance, corporate tax, GST, money laundering and other issues, not only in Malaysia but other countries as well. As such, my study focuses on creating better humans. Key findings from the literature highlighted the deficiencies in core competencies of the firms. They are related to human capital and most of the researchers pinpointed the importance of knowledge, skills, capabilities in which it links to competencies in the corporate environment. The resource-based view of the firm is a common theory used by researchers as a mean of explaining competitive advantage and superior performance amongst the firms. And most of them stress the necessity to meet customer needs and expectation to create a sustainable competitive advantages.

**Keywords:** Sustainable Competitive Aadvantage, BetterH, Knowledge, Skills, Abilities, Competencies, Accounting Firms, Practitioners

## **Introduction**

Doing business is exactly like going to the battlefield. The survivor wins. If you were dead, people forget you within three days. But if you survive, you always have a chance of success. There are various reasons for one person to be successful, but there are almost the same reasons for people to fail – greedy, wrong team, run too fast with too much money. Learn to face these mistakes and troubles when it arrives (Quote by Jack Ma).

Siti-Nabiha, Scapens, (2005) reveal that stability and change have become the focus of the accounting profession and are not necessarily contradictory and opposing forces but interlink in an evolutionary process of change.

The mission of the Organisation for Economic Co-operation and Development (OECD) to promote policies that will improve the economic and social well-being of people around the world, effect the birth of Corporate Governance have improved in many countries and companies including Malaysia. It serves as a deterrent to future unhealthy emergent issues after numerous unexpected accounting scandals in the world occurred. SMPs must equip themselves with solid amour to face the challenge ahead. The quote in Sun-Tzu War of Management states “know yourself know your enemy, one will win the battle. Know the weather know the climate, the victory shall be yours.” In short, the SMPs has to be prepared before they are affected, or it will be too late.

Brian Blood, Chief Executive of Confederation of Asian and Pacific Accountants (2016) addressed the role of accounting in powering economic prosperity in Asia at the second Financial Reform for Economic Development Forum (FRED II) and conclude the need for strong public financial management and the importance of professional accountancy organisations in engaging with the public sector to bring about change, noting that “good decision making is founded on good information”.

In recent years, there has been a growing need in Asian countries to appreciate the roles of SMPs in the accounting industry. It is simply because of many practitioners in these countries are comprised of SMPs who employ professional accountants and contribute to employment creation in the industry. Another reason is SMPs are greatly engaged to provide valuable business support to small and medium enterprises (SMEs) (Williams, O’Donovan, 2015) which are currently considered as the engines of economic development both in developed and developing countries.

In Malaysia, there is no exception in leniency of accounting practices in the market. The Ministry of Finance has set up the Committee to Strengthen the Accountancy Profession (CSAP), which aims at addressing the strategic challenges facing the accounting profession in the country. Hence, an accountant’s knowledge is priceless when assessing an organisation’s financial health and performance. Whether it is a small firm or a multinational corporation, accounting professions are depended upon in steering the business towards success.

### **Research problems**

The study focuses on creating better humans towards the sustainable competitive advantage of SMPs in Malaysia. The international scandals have put the accounting profession under public and regulatory scrutiny. The public’s perception of the accounting profession has changed putting high expectation on them to lend credibility to publish financial reports (Zabihollah Razaee, 2004) and be always in high competency level. Accordingly, restoring public confidence in auditors’ judgments and reputation is necessary. Accountants must align themselves with strategic ways to adhere to the compliance issues. In addition, the accounting professions were under a strict monitoring of Malaysian Audit Oversight Board (AOB) and Malaysian Institute of Accountants (MIA). Therefore, the better humans cannot be overlooked and more competent accountants are needed in the market.

As a result, the accounting professional landscape is continuously changing, particularly the new laws and auditing standards. The accountant needs to develop the habit to regularly update themselves with the latest information (Palmer, Ziegenfuss, Pinsker, 2004). It shows that other than general business knowledge and accounting knowledge, personal attitudes towards the learning capabilities and initiatives are also significant.

Francis, (1994), cited in Nagy, Cenker, (2007) also say that those changes lead to the works of accounting professions to be structured and standardized, but has limited their subjectivity. Lack of conceptual skills and professional judgment capabilities disqualify them to stay relevant not only in Malaysia but also across international borders. For example, a Malaysian firm may do business with multinational clients or they may have subsidiaries overseas. Not

simply that, the general business knowledge and personal attitudes and capabilities are questionable as well. It is clearly the internal weaknesses of the accounting practitioners. These core competency skills fall part of the KSA mentioned above.

No doubt that the tight laws, principles and regulations are secure for the industries, external auditors experienced increased stress because of increased expectation of independence. A lot of compliance work, restricted higher audit fees and greater reporting responsibility add on stress on them. Stress management and self-responsibility practices within the workplace have created accountability and leadership accomplishments. Nagy, Cenker, (2017) suggests that a good communication skill to bridge the tension of auditors/client relationship during the long meeting and regular dialogues would create a competitive advantage to the practitioners. Communication skills, interpersonal skills, and personal attitudes and capabilities are internal weaknesses to be improved.

McDowall, Jackling (2010), Stefan Bunea (2017), Marriott and Marriott, (2003), find that the lack of core competencies start from the students in colleges and universities affecting communication skills, interpersonal skills, general business knowledge, accounting knowledge, problem-solving skills, information technology and computer skills, and personal attitudes and capabilities. The educators have crucial roles to reverse the effects.

Janvrin D., Bierstaker J., and Lowe J. D. (2009) argue that whether it is auditors or the clients, the use of information system (IS) tools is a norm in the technology world. Ahmi A, Saidin S. Z. and Abdullah A (2014) however, recommend that if they have not fully adopted IS, they should at least be in the process of adoption or having a positive perception towards technology usage. It is unknown exactly how powerful of new technology will change our lives and works. One thing for sure is that technologies will take over more and more routine tasks, so our goal must keep creating new tasks that are not routine.

The appropriate research question is, therefore: *What are the major factors contributing to SCA of SMPs?* Hence, the research objective is *to determine the major factors contributing towards the SCA of SMPs.*

### **Literature review**

The literature review must bring clarity and focus to the research problem, improving the research methodology, broadening the knowledge base in the research area and with the hope enabling to contextualize any findings.

### **Sustainable competitive advantage**

The strategic management is a plan of action designed to achieve a long-term or overall design using the allocated available resources (Chandler, 1962). It would be pointless if the strategy could not address the internal and external issues affecting the organisation. This is what we want to do and how we intend to do which enable the organisation to adopt the master plan in the future (Abell, 1993).

Dess, Lumpkin, Eisner, McNamara, (2014) in their book 'Strategic Management', 7th Edition, McGraw Hill, Chapter 1, state that competitive advantage is a firm's resources and capabilities that enable it to overcome the competitive forces in the industry. However, it is the best to determine how a firm is to compete that are sustainable over a length of time. The firm should position itself to minimize its costs of service or develop services that are unique for customers and will enable the firm to charge premium prices.

Sustainable competitive advantage can be achieved through enhancing the operational effectiveness and competitive dynamic. It is directed at overall organizational goals, includes multiple stakeholders, incorporates both short-term and long-term perspectives, and incorporates trade-offs between efficiency and effectiveness.

Competitive advantages provide an edge over rivals and an ability to generate greater value for a firm and its shareholders. The more sustainable the competitive advantage, the more difficult it is for competitors to neutralize the advantage. The two main types of competitive advantages are comparative advantage and differential advantage.

Comparative advantage is generated by a firm's ability to produce a good or service at a lower cost than its competitors. This gives the firm the ability to sell its goods or services at a lower price than its competitors or to generate a larger margin on sales. Rational consumers will choose the cheaper of any two perfect substitutes offered. If the effects of comparative advantage are partially offset by imperfect substitution, higher margins for the lowest-cost producers will eventually benefit shareholders through superior returns or provide the company with more resources for marketing, research and development or administrative infrastructure improvements to support future growth.

Comparative advantage can be derived from economies of scale, more efficient internal systems, location in geographies with low labour or low property expenses. These do not always imply the company can produce a better product or service, but rather they can offer a product or service at a lower price. In the context of international trade economics, comparative advantages are determined by opportunity cost, and any part has a comparative advantage at something.

A differential advantage is created when a firm's products or services differ from its competitors and are superior to a competitive offering. Differential advantages can be driven by more advanced technology, patent-protected products or processes, superior personnel, or a strong brand identity. These factors support wide margins and large market shares.

Hill, Jones, (2008) stress the approach of a mission to meet the need for a customer-oriented rather than a product-oriented business. The customer-oriented business derives the questions of 'who is being satisfied?', 'what is being satisfied?', and 'how customer needs are being satisfied?'. It focuses on customer groups, customer needs and distinctive competencies.

Williams, O'Donovan, (2015) question the deficiencies in the effectiveness of the accounting profession in supporting SMEs in implementing Small Business Practitioners (SBPs) despite a request from clients for accountants to provide this advice and a belief that accountants are best placed to do so. The SMPs should create competitive advantage by prioritizing more of its quality and time with the customers and assist the doubts of the clients. The results show potential benefits of implementing SBPs which include improved customer loyalty, cost savings and reduced risk of government-posed regulation.

In explaining sustainable competitive advantages, the literature by Johannessen, Olsen, (2009) shows two major paradigms, the industrial organization (IO) theory and the resource-based perspective. They explain that the firms need to exert monopoly power to make supernormal profits and are possible by limiting competitive forces through creating entry barriers at the industry level.

### **Better humans – Knowledge, skills and abilities (KSA)**

There are various works on core competencies that support the essence of knowledge, skills, and abilities in knowledge management systems and theories. Palmer *et al.*, (2004) conclude the common and specialized competencies are related to knowledge, skills, and abilities which can be used by any interested parties to design hiring and evaluation aspect. The components are communication skills, interpersonal skills, general business knowledge, accounting knowledge, problem-solving skills, information technology and computer skills, personal attitudes and capabilities.

Study title	Organization	Year completed
Perspectives on education: capabilities for success in the accounting profession (The Big Eight White Paper)	Big Eight firms	1989
Objectives of education for accountants: accounting education change commission position statement number one	AECC	1990
What corporate America wants in entry-level accountants	IMA	1994
The 1996 practice analysis of management accounting	IMA	1996
Competence-based approaches to the professional preparation of accountants	IFAC	1998
The 1999 practice analysis of management accounting	IMA	1999
Competency framework for internal auditing	IIA	1999
The AICPA core competency framework for entry into the accounting profession	AICPA	1999
Towards competent professional accountants	IFAC	2003

The organization in the table above shows the research topics and completed year. The result from the authors on its comparison of the various competency studies as to whether they are the important criteria for the competency level in the practical world are shown in the table below:

	Studies							
	White Paper	AECC	AECC	IMA	IMA	IIA	AICPA	IFAC
Communications skills	X	X	X	X	X	X	X	X
Interpersonal skills	X	X	X	X	X	X	X	X
General business knowledge	X	X	X	X	X	X	X	X
Accounting knowledge	X	X	X	X	X	X	X	X
Problem-solving skills (intellectual skills)	X	X	X	X		X	X	X
Information technology	X	X	X		X	X		X
Attitudes, capabilities professionalism	X	X	X		X	X		X
Computer skills	X	X	X	X				X
Leadership	X				X			X

### Communication skills

Johannessen, Olsen, (2009) point out the importance of innovation as a process of percolation. There are two classes of forces termed as connectivity and receptivity. Connectivity can be used among the agents in the network, and receptivity can be used by each agent's capacity to absorb the information received. In short, it is concluded that proactive firms have a greater extent of adaptation, more external connectivity and a better integration of electronic data interchange information. Information richness theory (Daft, Lengel, 1986, cited in Johannessen, Olsen, 2009) argues that communication media vary in their capacity to process rich information. It may decrease its richness through face-to-face, telephone, personal documents such as letters and memos, impersonal written documents, and numeric documents. Lee, 1994 argued that in view of information richness theory, electronic mail filters out important cues such as body language and tone of voice and, unlike face-to-face meetings, is not conducive to immediate feedback.

Stone, (2011) indicates that accountants adopt communication approaches with small managers must prove its needs of the economically significant in the small business sector. Colbert, (2002) addresses the communication as significant for internal and external auditors after the required implementation of corporate governance, and both the International Standards of Auditing (ISAs) and the Practice Advisories (PAs).

*Interpersonal skills*

Interpersonal skills have the positive effects of work engagement on outcome measures of transformational leadership and leader well-being at work (Mencl, Wefald, Ittersum, 2016). It consists of emotional and political skills, in which results show that they are important capability contributing to transformational leadership and leaders' job satisfaction. Transformational leadership is well aligned with management in the modern knowledge economy because of the nature of work is characterized by personal interactions and meet individualized needs. Organisations will benefit from implementing ways to engage managers in their work to facilitate transformational leader behaviours and well-being.

Sahai, Jain, Bahguna, (2014) pinpoint that bridging the gap using training in interpersonal communication helps in improving customer service experience. The Functional Fluency model helps in identifying the dominant response style and the variables emergent for a group of frontline staff. This can help in designing training programs that will assist in employees enhancing their interpersonal communication from positive functioning and being cautious or exercise restraint on the negative functioning of Functional Fluency model.

*Problem-solving skills*

Glover, Champion, Daniels, Boocock, (2016) using Capital Theory to explore problem-solving and innovation in small firms reveal that firms which possess higher levels of social and cultural capital have a higher success rate in problem-solving and are more likely to engage in the innovative activity. Social and cultural capitals complement and reinforce one another in small firms enhanced ability to utilize networks and to access a greater diversity of knowledge.

*IT and computer skills*

Katamba, Angelina Yee Seow Voon, How Shi Min, Hsin Vonn Seow, (2017) stress the critical of audit firms to adopt different technologies to support their activities. By doing so, they will improve the competency level to build public confidence in them. Gary Pan, Sayyen Teoh, Poh Sun Seow, (2014) identify two actions that were instrumental in enriching resources in IT capability development process which are collective leadership and managing change. Three attributes that supported the resource-enrichment process include effective governance structure, extensive IT knowledge and business experience, and stakeholder commitment.

*General business knowledge, accounting knowledge, and personal attitudes and capabilities*

Zabihollah Razaee, (2004) reminds the accounting professions to lend credibility to publish financial reports and to rebuild and restore public confidence in auditors' judgments and reputation. Therefore, SMPs must change their attitude of managing firms with integrity and transparency and improve their capabilities to absorb additional knowledge (general business knowledge and accounting knowledge) and enhance other competencies skills. The perceptions of corporate governance, auditing standards, accounting standards, acts and regulations etc. should be taken positively as an opportunity to strengthen the core competencies to create a sustainable competitive advantage.

**Relationship between SCA and KSA**

Companies of all sizes and industries are undergoing a digital transformation. They are developing operations and overhauling infrastructure to better attend to clients, partners and employees and respond more rapidly to shifting market conditions.

Simple tools let business users design and adapt their own process. Dynamic processes allow people to break out the rigid workflows and collaborate on issue resolution. And the integration of the content with process adds intelligence to automated information flows so employees work more efficiently and effectively.

*Theories and models*

Fang Huang, Gardner, Moayer, (2016) highlights the key components and applications of the new Strategic Knowledge Management (SKM) conceptual model for actively and purposefully integrating explicit and tacit knowledge rooted within organization systems and bigger social business intelligence networks. It aligned managerial practices through enabling organizational learning, building organizational memory, encouraging knowledge sharing and collaborative decision support (Liao, 2003, cited in Fang Huang, Gardner, Moayer, 2016).

At today's peak of competition, business process management (BPM) is viewed as a best practice management principle that can help companies in sustaining competitive advantage. Established on the reassessment of the literature, the study of BPM can be analysed based on dynamic capability theory (Nadarajah, Abdul Kadir, 2014). Process alignment and people involved are the focal points. They are based on few theories such as systems theory, organizational theory, alignment theory and strategic theory. The results indicated that when systems, process and people are perfectly aligned, it can work to harness the organisation's sustainability.

The BPM life cycle in Figure 1 shows the flow of the process from design to optimization.

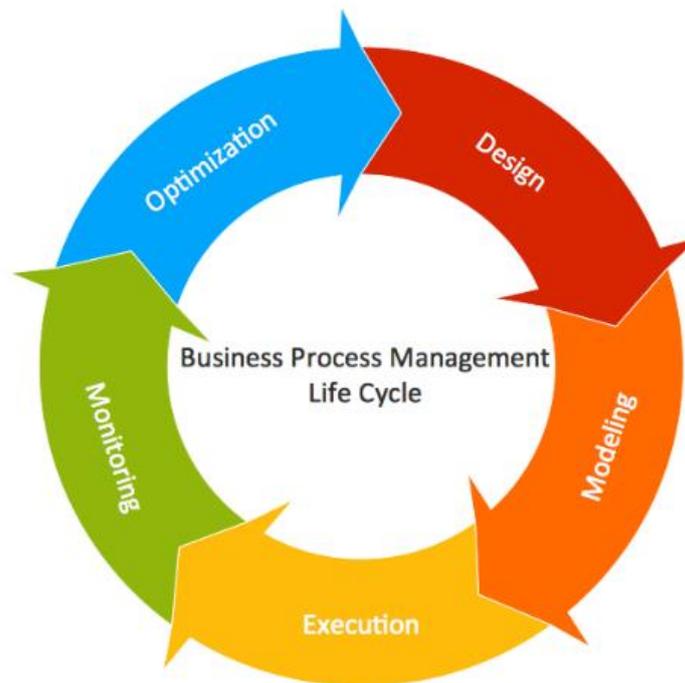


Figure 1: Business Process Management Life Cycle

Remy Magnier-Watanabe, Dai Senoo, (2009), on the other hand, find that the perceived importance of knowledge management activities, especially the combination, appears as an important source of competitive advantage related to technical knowledge. More time spent on knowledge management tasks, socialisation, contributes to a competitive advantage related to affective knowledge. They use the “*knowledge-creation theory*” based on this paradigm that all knowledge can be classified in either tacit knowledge (Polanyi, 1966) or explicit knowledge. On the one hand, tacit knowledge is the cognitive knowledge that is hard to express with language or numbers: for example, beliefs, points of view, technical skills and know-how are all part of tacit knowledge. On the other hand, explicit knowledge is the objective and rational knowledge that can be expressed with language or numbers: texts, equations, specifications and manuals are a few examples.

Nagy, Cenker, (2007) however, argue that the increase in oversight board monitoring and workload have changed the nature of the external audit function to more compliance type work, and the environment has created much concern for the auditors. The new reform has significantly impacted the audit environment in terms of scope of services, client assessment procedures, management and audit committee relationships with the external auditors, audit firm personnel management, and the long-term outlook of the profession. It means that the strategy has also focus and consider an improvement in operational activities.

Adams, Lamont, (2003) further suggest that firms must learn to re-bundle internal competencies and resources to maintain competitive advantages over time. Applying the resource-based view of the firm and dynamic capabilities perspectives, the roles that absorptive and transformative capacity played in the organizational innovation with specific emphasis placed on the role and effectiveness of knowledge management systems is a determinant of innovative practices.

Manson, McCartney, Sherer, (2001) show that audit automation cannot be viewed simply as a technology for improving the quality and/or productivity of the audit process. It also has value as a symbol of the firm's market competitiveness and hence helps to promote the firm to clients and internally. In addition, the research shows that audit automation offers considerable opportunities for greater managerial surveillance and control, but at the same time it facilitates a less hierarchical and more informal organisational structure.

### **Conclusion and implication**

The 2017 Data & Analytics Report of MIT Sloan Management Review finds that the percentage of companies deriving competitive advantage from analytics increased for the first time in four years. Incorporating survey results and interviews with practitioners and scholars, the report finds that companies' increasing ability to innovate with analytics is driving a resurgence of strategic benefits from analytics across industries. The report is based, in part, on MIT SMR's seventh annual data and analytics, global survey, which includes responses from 2,602 business executives, managers, and analytics professionals from organizations located around the world (Sam Ransbotham and David Kiron, 2017).

Throughout the study, there are three important areas which stem the sustainable competitive advantage of an organisation. They are organisation structure, organisation culture and leadership. Leadership is the key factor and superior to the others to ensure the strategy formulation and implementation are successfully and effectively work out for the organisation. Effective leadership, therefore, is the drive to lead the organisation into a sustainable competitive advantage.

The intent of the study is reaffirmed what are the existed problems that affect the industry. The predicted outcomes are that there is a significant relationship between the KSA and SCA of SMPs. The message I am trying to convey to the audience is about the culture. Culture is what people do with the world. But clearly more needs to be said that not everything we do becomes part of the culture. For example, people commit murder and that behaviour is seen as criminal and anti-social. In short, there is something not right with the culture we are living in now. According to sociologist Peter Berger, "Every human society is an enterprise of world-building." We build bridges to connect islands to the mainland so that we can build houses, shops, universities and theatres there. We make movies to show in theatres, so we can overcharge for popcorn. We call this externalization. Humans externalize their values, imaginations, innovations, and ideas on the world around them by what they do. Most of what we do is consistent with our culture, but not always. That is why cultures change. New things are created, and old things are left behind.

When what we do becomes part of our normal way of living together, it is called objectification. Culture are environments we create for ourselves. What is normal in a place is not necessarily

normal in another place. The power of what we experience as normal, though largely unnoticed until we experience the different, determine much in our daily lives. Internalization is the word for how culture shapes us. We internalize culture as we settle into its routines, lifestyles, and habits.

To summarise my points, culture consists of human activities that have collectively taken on a life of their own. As we live in a culture, we become committed to its vision of life, unless we are intentional otherwise. In other words, we make our cultures, and then our cultures shape us.

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# Board Characteristics and Dividend Pay-out Practice among the Financially Distressed Firms in Malaysia

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## Abstract

**Purpose:** To investigate the association between various corporate governance attributes and dividend pay-out policy and the survival likelihood of distressed firms.

**Design/methodology/approach:** Data are obtained from Data stream, Bloomberg and annual reports for all public listed firms that fall under the PN4 and PN17 companies. They are all publicly available data. *Listed companies that are classified as PN17 and PN4 (PN stands for Practice Note and is issued by Bursa Malaysia) relating to companies that are in financial distress. A company that falls within the definition of PN17 and PN4 will have to submit its proposal to the Approving Authority to restructure and revive the company in order to maintain its listing status.*

**Findings:** The findings of this study will be of great help for both academics and decision makers in relation financial distress and shareholder value maximization as most are still kept in the dark.

**Keywords:** Distressed firms, Board, Dividend Pay-out Policy

## Research Background & Description with Literature Cited

### *Literature Review Summary*

Dividend is directly linked with investors' confidence and is also very important for attracting more customers literally termed as signaling. The general perception about dividend forecasting is blur, it is considered that the accuracy in predicting dividend forecasting is largely neglected or reported biased as compared to manager's earnings. However, in case of Australian companies both the manager's and dividend earnings forecast is found biased, but the dividend forecast on average found better than that of manager's earnings forecast, and it is reported that accuracy of dividend forecasting increased with the increase of retained ownership proportion in the IPO of the firm (Brown *et-al.*, 2000).

Sawicki (2009) extends further the aspect of firm level performance and dividend payout. In his study, Sawicki use the Credit Lyonnais Securities Asia (CLSA) 2001, the corporate governance ratings for firms from 19 emerging markets and found that higher corporate governance ratings have higher dividends payouts. Further, another study by Dhameja (1978)

classified the Indian listed firms into size group, industry group, growth group and control group and found that there is no statistically significant relationship between dividend payout, on the one hand and industry and size on the other. However, growth is inversely related to dividend payout and is found to be significant. On the contrary, studies done on UAE firms establish evidence that profitability and size to be the most important considerations of dividend payout (Mehta, 2012).

Shamsul (2006) examined the relationship of financial distressed along with board independence, CEO duality and ownership structure using sample of distressed and non-distressed companies. The results alluded that CEO duality and board independence are not significant with financial distressed. However, the non-executive directors interest and management has negative relationship with financial distressed of firms. The findings of the study is in line with agency theory.

Khan (2006) studied the relationship between dividend and ownership structure in UK by taking large 330 quoted firms. The study found a negative relationship between the dividends and concentrated ownership and suggested that large blocks of equity in hands of insurance companies increases the dividend that indicates that insurance companies in UK are more active than other financial institutions, the relationship between dividend and ownership structure in case of individuals is found negative. The results are consistent with agency theory, as in case of large holding by an institution eliminates the free riding cost.

Klapper and Love (2004) confirm that better operating performance and valuation are related to better governance and investor protection in emerging markets. On the contrary, Ling *et al.* (2008) posit that Malaysian listed companies are reluctant to cut dividend even when the performance of the company is deteriorating and their rationale for is that the information conveyed by dividend policy is more historical performance and not based on future performance as suggest by signalling theory. In Malaysia, there is some evidence to show that despite their poor performance, distressed firms such as PN4 and PN17, do pay dividends. To note a few i.e Kenmark, AKN, Haisan, Hock Sin, IBRACO, Hock Sin, Destini or Satang and Axis Incorporation Bhd are PN4 and PN17 but still pay dividends.

Gugler *et-al.*, (2003) carried out a study in Germany to understands the conflict of managers and shareholder with regards to dividend change announcement, generally the increase of dividend lefts the manager with limited funds, similarly, decrease in dividend severely affects the small shareholders. In line of that, their study found that dividend signals the complexity of conflict between the shareholder and the manager, moreover, the study alluded that large holding by the manager decrease the dividend payout ratio, while in case of large holding by the shareholders increases the DPR.

Ho (2003) tried to examined the effect of environment on dividend policy, for the purpose he opt to compare the dividend policy of Australia and japan by considering the panel data from ASX 200 Australian stock market and Nikkei 225 index of Japan. The study reported that due to tax imputation in Australia the dividend payout is slightly higher than that of Japan. Moreover, the study identified some major financial factors that affects the dividend policy, in case of Australia the size of firm while in case of Japan liquidity positively affected the dividend policy, however, industry affect found to have a significant effect on the dividend policies of both the countries, the above results are endorsing the signaling, agency, and transactional cost theories.

### ***Issues***

The study of corporate dividend policy behavior is a vital field in corporate finance, some scholar has declared the dividend policy irrelevant, than why are the firms paying dividend? Looking at its importance (Pandey, 2001) investigated the corporate dividend policy of Kuala Lumpur stock exchange the (KLSE) and reported several industrial differences considering the

dividend payout. The study reported that construction industry has the lowest dividend payout ratios followed by trading and service sector. Beside Industrial factor the time factor also plays an important role in the dividend policy of Malaysia, according to (Pandey, 2001) in the recent year the DPR of all the sector witnessed a decline. Moreover, increase in the DPR ratio notice when the earnings are increased and vice versa.

### **Research Objective**

To examine the factors at top management that influence dividends payout decision of distressed firms in Malaysia.

### **Research Methodology**

Quantitative method will be applied in this study. Data will be mainly extracted from Data stream or Bloomberg and also from the company's annual reports that are made available for the public. The study uses secondary data for a period from 2001 to 2013 and matched with non-distressed firms for the same period. The sampling frame is all PN4 companies and PN17 companies for this given period. The corporate governance variables that would be evaluated are board composition, board size, CEO duality, director turnover, outside turnover, block holder ownership, inside ownership and creditor involvement. The financial variables tested are current ratios, financial leverage, total assets/sales, market risk (book to market), return on sales, interest coverage and total assets. The prior research model called the "Cox Proportional Hazards" will be used and the rationale for using it is as explained below:

Flagg et al (1991) state that a potential failure process starts with a decline in firm 'health' and includes immediate events leading to the resolution of financial distress and to address the effects of corporate governance restructuring on firms' progression through financial distress, the survival analysis techniques suggested by Shumway (2001) is used. Survival analysis techniques are used when studying the effects of multiple continuous or categorical attributes on the time of events (Hamilton, 1998). Hence to test this hypothesis, the Cox Proportional Hazards model is used. Further, as there is bound to be random censoring of firms that become inactive or where data are not available, survival analysis takes into consideration these censored observations and thus avoid sampling bias (Shumway, 2001).

According to Parker, et al. (2002), the influence of specific variables on firm survival over time can be isolated and thus the association between corporate governance attributes and firm survival over time. This technique derives a hazard rate or distress rate, which likelihood of the particular event occurring in the next event, conditional upon it having not occurred up to that point in time.

Firms with different corporate governance and financial characteristics at a particular time will have different rankings of conditional distress probabilities. According to the Cox Proportional Hazards, a hazard ratio of 1.0 suggests a one unit change in the independent variable and has no effect on the likelihood of the business failure holding all other variables constant. A hazard ratio of less or more than 1 .0 suggests a lower (higher) likelihood of business failure or bankruptcy.

$$DPP (1) = \beta_0 + \beta_1 \text{DIRT/O} + \beta_2 \text{O/DIR} + \beta_3 \text{BCOM} + \beta_4 \text{BSIZE} + \beta_5 \text{DUAL} + \beta_6 \text{CRO/SHIP} + \beta_7 \text{B/OSHIP} + \beta_8 \text{ISIDE/OSHIP} + \beta_9 \text{LOGMKTC} + \beta_{10} \text{LEV} + \beta_{11} \text{ROA} + \beta_{12} \text{CR} + \beta_{13} \text{IR} + \beta_{14} \text{MR} + \beta_{15} \text{ROS} + \beta_{16} \text{MP} \beta_{17} \text{SECTOR dummies} + \varepsilon$$

DPP (1) is the model for distressed companies and the dividend payout ratio and is dividend per share divided by Primary earnings per share before Extraordinary Items; DIRT/O is the number of resignation of directors; O/DIR is The outside directors on the board; BCOM is the proportion of non-executive directors (NEDs) to total number of directors on the board of the

company; BSIZE is Total number of directors on the board of the company; DUAL is dichotomous with 1 if the chairman is also the chief executive officer (CEO) of the company and 0 otherwise; CRO/SHIP is the creditor involvement in the business; B/OSHIP is the block holder ownership by the shareholders; ISIDE/OSHIP is ownership by internal Directors; LOGMKTC is natural logarithm of Market capitalization of the companies; LEV is Book value of long term debt divided by the book value of total assets; ROA is Earnings before interest and tax divided by total assets; CR is the current ratio; IR is the interest cover; MR is the market risk; ROS is return on sales; MP is the market perception measured by way of absolute value of the ratio of book value of common equity to market value of common equity.

### Findings

Table 1 below shows the regression results on the factors that affect dividend payout decision of the distressed companies in Malaysia. The results indicate that outside directorship has a significant impact on dividend payouts (at 0.016), meantime increasing number of non-executive on board will force PN17 companies to avoid paying dividends (0.031). Similarly, Blockholder ownership will lower the chances of paying dividends among the PN17 companies (0.036). It seemed that boardsize, CEO duality, creditors' involvement and internal directors did not have influence on dividends payout in the distressed companies. The model seemed to hold homogeneous characteristics as the control variables remained insignificant. The regression model can be constructed as follows;

Table 1: Regression Results

Variable	$\beta$	P
Constant	3.211	0.584
BOARDSIZE	-1.1101	0.119
<b>OUTDIR</b>	<b>4.017</b>	<b>0.016</b>
<b>BCOM</b>	<b>-21.589</b>	<b>0.031</b>
CEODUAL	-0.243	0.884
CRO_SHIP	0.00448	0.248
<b>B_OSHIP</b>	<b>-0.06297</b>	<b>0.036</b>
ISIDE_OSHIP	-0.00002	0.791
LOGMKTC	0.2443	0.596
LEV	0.0480	0.665
ROA_IBT	-0.02869	0.626
ROA_BT	0.02907	0.618
CR	-0.00132	0.772
IR	-0.01565	0.797
MRISK	-0.00058	0.619
LOGMRISK	1.613	0.219
MP	0.00003	0.460
F = 4.63076		
R <sup>2</sup> = 16.3%		

The regression equation is:

$$\begin{aligned} \text{DPP\_INC} = & 3.21 - 1.11 \text{ BOARDSIZE} + 4.02 \text{ OUTDIR} - 21.6 \text{ BCOM} - \\ & (5.842) \quad (0.7040) \quad (1.631) \quad (9.850) \\ & 0.24 \text{ CEODUAL} + 0.00449 \text{ CRO\_SHIP} - 0.0630 \text{ B\_OSHIP} - \\ & (1.662) \quad (0.003852) \quad (0.02949) \\ & 0.000022 \text{ ISIDE\_OSHIP} + 0.244 \text{ LOGMKTC} + 0.048 \text{ LEV} \\ & (0.00008383) \quad (0.4584) \quad (0.1102) \\ & - 0.0287 \text{ ROA\_IBT} + 0.0291 \text{ ROA\_BT} - 0.00132 \text{ CR} \\ & (0.05860) \quad (0.05809) \quad (0.004530) \\ & - 0.0157 \text{ IR} - 0.00058 \text{ MRISK} + 1.61 \text{ LOGMRISK} + \\ & (0.06060) \quad (0.001165) \quad (1.302) \\ & 0.000033 \text{ MP} \\ & (0.00004501) \end{aligned}$$

\*standard errors in parentheses

### Conclusion

Generally, PN17 companies are expected to be more sensitive to the fundamental requirements where dividends should not be paid as the companies are making losses. Despite the losses, the companies are still paying dividends. Hence, this study offers some insights relevant to the behavioural aspects of the companies. Undoubtedly, outside directorship will be a catalyst for the companies to pay dividends, probably to satisfy their short term needs, however the existence of the non-executive directors and blockholders tend to hold the companies from paying dividends which is regarded a positive sign in strengthening corporate governance practices. This study also triggers an question as to how the outside directors could have influence on the payout policy.

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# Inaccurate Forecasting Planning Nurture Inventory Wastage (Perishable Items) in the Hypermarket Retail

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## **Abstract**

**Purpose:** Although, the hypermarket retail business already exists for decades but the forecasting planning accuracy commonly being a high-level challenge. Inventory wastage is not an easy-going situation to be tolerated especially for perishable items where the disposability extremely high.

**Design/Methodology/approach:** In this paper, the desirable focus will be on the methodology how the hypermarket retailers can avoid the inaccuracy of forecasting during the planning stage.

**Findings:** This decision is influenced by four factors that is product characteristics, quality, lead time and data accuracy.

**Research Limitation/Implication:** This paper explores the conceptual research perspective where the forecast inaccuracy planning concern along with a framework design that will extend to an empirical study near future.

**Practical Implication:** Today hypermarket retail competition is fiercer than ever and continue to search for ways to enhance performance by having a perfect forecasting planning to achieve a control inventory accuracy. Forecasting errors have two kinds of undesirable effects i.e. missed sales opportunities through stock outs and incurs high situation level of supply chain risk.

**Originality/value:** Assessing the effects of various phases of forecasting planning within the perishable goods supply chain environment to tackles a numerous issues and constraint to achieve a sustainable inventory accuracy and reduce wastage.

**Keywords:** Forecasting, Inventory Wastage, Supply Chain Risk, Perishable items, Inventory Accuracy

## **Introduction**

The retailing industry is one of the biggest contributors towards Malaysia's gross domestic product (GDP) and also provides employment opportunities (Mui et al., 2003). Weld Supermarket was the first modern retail format that was introduced in Malaysia in 1963 followed by other modern retailers (Kaliappan et al., 2009). The first hypermarket that was introduced in Malaysia was Makro, in 1993 (Lee, 2004). Hypermarket retailing is one of the forms of modern grocery retailing in Malaysia that is experiencing widespread expansion, and the industry is expected to expand continuously and remain immune to the maturity phase.

Most products in hypermarkets are based on fast moving consumable products, and the majority of departments in hypermarkets are selling basic household necessities.

According to Department of Statistics Malaysia (2011), Selangor state has the highest number of hypermarkets, which is total of 121 outlets followed by Wilayah Persekutuan Kuala Lumpur that has 37 outlets. Selangor state has accounted for 40.88% of total hypermarket outlets in Malaysia while for Wilayah Persekutuan Kuala Lumpur, it contributes for 12.50 % of total hypermarket outlets in Malaysia as shown in Table 1.1. Table 1.2 shows the main hypermarket retailers in Malaysia. Based on this table, the largest player is Giant. It has accounted for 41.22% of total hypermarket outlets in Malaysia, followed by Mydin and Tesco with 27.37% and 15.54% coverage respectively. The total number of hypermarkets in Malaysia is 296 outlets in year 2011 (Department of Statistics Malaysia, 2011).

Table 1.1: Distribution of Hypermarket by State

States	Population ('000) Years 2018	Number Of Outlet	Hypermarket distribution percentage (%)
Johor	3737.2	46	13.772
Kedah	2166.2	12	3.593
Kelantan	1854.5	8	2.395
Kuala Lumpur	1881.3	38	11.377
Melaka	924.9	14	4.192
Negeri Sembilan	1130.6	19	5.689
Perak	2507.2	34	10.180
Pulau Pinang	1767.9	28	8.383
Selangor	6448.4	105	31.437
Terengganu	1226.0	9	2.695
Pahang	164.0	6	1.796
Perlis	253.1	1	0.299
Sabah	3915.1	5	1.497
Sarawak	2789.4	9	2.695
		334	100

Source: Department of Statistics, Malaysia (2011)

Hypermarket	Number of outlets	Hypermarket distribution percentage (%)
Tesco	66	19.760
Cold Storage	15	4.491
Mydin	60	17.964
AEON	34	10.180
Jaya Grocer	24	7.186
AEON Big	20	5.990
Econsave	66	19.760
Giant	49	14.671
Total	334	100

Source: Department of Statistics, Malaysia (2011)

Despite various ranges of products, researchers' only emphasis on the perishable goods perspective where the disposal level grew enormously if forecasting planning managed wrongly. Perishable products are defined as products whose quality deteriorates overtime (Karaesmen et al., 2011). Products such as fruit, vegetables, meat, poultry, dairy products, pharmaceuticals, and human blood can be categorized as perishable products (Karaesmen et al., 2011; Ferguson and Ketzenberg, 2006).

One of the procedures which significantly impact demand making within a hypermarket retailer is forecasting demand. In any case, demand is one of the best wellsprings of vulnerability which hypermarket retailers confront, to such an extent that a considerable lot of these retailers wind up leaving to working with conjectures with various mistakes (Donselaar, K.V., 2006). Inaccurate forecasts drive hypermarket retailers to discover approaches to make up for the vulnerability, and the regularly utilized technique to accomplish this is by building perishable goods. Exact estimates help to accomplish better customer service and lower stock levels. The expanding focused retailing business requires ever more prominent client introduction and operational efficiencies. Customers are continually requesting higher service levels and better buying costs.

While retail managers endeavour to pursue the business mantra "retail is detail," only one out of every odd detail of the real execution level can be reflected in the arranging procedure. Hypermarkets are part of the grocery retailing industry and comprise one of the primary appropriation channels for items (Kaliappan et al., 2009). It can also be considered as an ordinary retailing industry that offers in enormous sums and offers a wide assortment of perishable items inside one outlet. The essential parts of ordinary conventional retailing include: cost driven, benefit conveyance and efficient (Sparks and Findlay, 2000). The traditional grocery retail shops have been supplanted by supermarkets and later by hypermarkets (Chaubaud and Codron, 2005; Hassan and Rahman, 2012a), which have significantly changed both the market structure and the administrative strategy (Gonzalez-Benito et al., 2005).

Past few decades, there has been a significant power shift from manufacturers to retailers because of the development of the brick-and-mortar model into further developed and capital-escalated super centers, megastores, and internet retailing or e-tailing (Randall et al., 2011). While retail supply chains are naturally extraordinary dependent on their target market, item

grouping, and perishable items, they all bring about noteworthy variable expenses because of demand and supply vulnerabilities and other unanticipated interruptions (Gorton et al., 2011). Perishable products are likewise the fundamental driver through which retailers can make competitive advantages to attract additional customers apart from pricing strategies. As per Heller (2002) the nature of perishable products combination is turning into the center reason numerous clients pick one grocery store over another. At present, they should be viewed as the main thrust behind the business' profitability. The worldwide market for perishable products, for example, refrigerated items growing because of changing ways of life and in general diminishing duties. Inferable from their regular delicacy and constrained lifetime, dealing with those merchandise is undeniably intricate and incorporates considerably higher dangers contrasted with non-perishable items.

These losses of perishable goods turnover because of harm, deterioration and expiry which is considerably higher contrasted with durable items (Ketzenberg and Ferguson, 2003; Deniz et al., 2004). The high edge of item misfortunes offers significant open doors for development and consequently motivating forces for research and innovation headway inside this business structure. The primary motivation behind this paper is in this way to examine various supply chain process enhancements for the specific conditions of perishable products. Inferable to the age of items held in stock being a noteworthy perspective inside a perishable products framework, item issuing and replenishment strategies are completely essential and should be viewed as substantially more thoroughly. Vulnerabilities and interruptions present an extensive variety of operational dangers to retailers and could result the influencing factors to engage the forecast accuracy planning to reduce inventory wastage. (Lee, 2004; Tang and Tomlin, 2008). Research objective is a statement of research reason which the analyst needs to explore. Along these lines, this study is to exhibit the vulnerability circumstance stimulated when estimating mistake circumstance happens for perishable products that made vulnerability hypermarket engaged with stock wastage (Holmstroem J. et al., 2011). This paper adroitly expounds the likelihood of key intending to accomplish the most accurate forecasting results to nurture inventory accuracy.

- Identify strategical methodology to secure accurate forecasting process in the Hypermarket retail for perishable goods.
- To determine the most suitable strategic fit and reduce the implied strategy.
- To examine how the forecasting accuracy utilized to eliminate inventory wastage.

### **Significance of Study**

Generally, every hypermarket retail ascertains with a high level of disposal related to perishable goods. This study provides a novel contribution by addressing the research call for more investigation into the relationship between product perishability, information sharing, and forecasting accuracy performance to achieve the wastage elimination (Wong et al., 2011). A consideration has been dedicated to specifically tackling challenges in perishable inventory management wastage (Nahmias, 1982) and has highlighted forecasting accuracy as an important means of reducing complexity and improving the performance.

### **Conceptual Framework**

The forecasting inaccuracy certainly aroused a highly risk situation to manage the perishable products in the hypermarket retail environment resulted in unpredictable inventory excess and wastage cost to the businesses. This paper elaborates the possibility of strategic irrepressible mitigation methods to achieve more alleviate model of forecasting accuracy. The focus of this paper is less on explaining how the forecasting inaccuracy could nurture inventory wastage. As the unit of study, it involves an appropriate theoretical framework (Diagram 1.1) to examine

how the forecasting inaccuracy influenced by the independent variables and finally pursuing the dependent for this study.



Diagram 1.1: Theoretical Framework

### Literature Review

The study of supply chain management has developed as a conspicuous field in giving organizations techniques to assemble long haul aggressiveness (Azadi et al., 2014). Supply chain management has the ability to promote the integration of organizations which was previously independent, for improving in organizational forecasting planning (Ajmera and Cook, 2009). The research structure recommends that the forecasting mistake could prompt supply chain risk and consequently it is fundamental to anchor the best practice execution for exact anticipating for perishable products in the hypermarket.

### Product Characteristics determines the preservation of perishable products

Customers request quality, and today customers desires for quality are higher than ever before. Achievement in retailing is reliant on building and keeping up a loyal customer base. It is essentially vital, consequently, to give quality items, as customer disappointment can effect brand loyalty. A retailer's reputation is subject to the nature of the item on offer – first on the advancement of a quality item, and second on item quality control. Perishable things or normally called as fresh food like leafy foods, meat, fish, dairy, and baked goods are items which are sensitive on “Shelf Life” which usually measured in days. The life of perishable products is dictated by a date which indicated on the item. Perishable products can be estimated from the day it is delivered until the point that the item become old or expired or the item never again can be devoured by buyers. Actually, the life of a perishable products typically short contrasted with a durable thing. According to Donselaar (2004), perishables things timeframe of realistic usability is not exactly or equivalent to 30 days. Because of the idea of the item which are delicate and short lifetime, the taking care of process is more troublesome and more dangerous contrasted with non-perishable products.

Perishable products contribute a huge percentage of revenue and also add cost of merchandise sold. It is imperative to get new nourishment at right retail and opportune time. Past literary works uncovered that perishable contribute major losses within the grocery retail industry. Ketzenberg and Ferguson (2003). The losses occur because of damage, deterioration and expiry which is higher contrasted with non-perishable items. In retail industry, lifetime of a perishable good plays a major role in overall inventory decision making process. In consideration of highly variable of demand and uncertain lead times for perishable goods (Christoph et al., 2016), an exact planning, forecasting and replenishment are extremely hard to be completed altogether. Past study by Goyal and Giri in the year 2001, have highlighted a couple of principle issues that disturbing perishable items. One of the primary issues identified with stock was on the level of safety stock held.

They asserted that holding higher stock may build the age of an item at the offering point which may specifically prompt higher expiry items. In this manner, normal stock-level of perishable products must not surpass one normal weeks' demand (Thron et al., 2007). Nevertheless, numerous retailers convey more extensive new fresh-food combinations that incorporate extraordinary and elusive things, and in addition ultra-new" things which have exceptionally restricted lifetime, a couple of days as it were. Actually, retailers confronting bunches of challenges to settle on a choice as far as when to request and the amount to arrange with crisp sustenance providers. Retailers are in dilemma of request excessively; the fresh food will be squander; order too little may prompt lose deals and disintegrate customers' faithfulness. Along these lines, retailers are in pressure of to know the appropriate measure of orders.

### **Quality Forecast Planning reduce product wastage**

Product perishability is one of the real worries in numerous retail hypermarket. In retail hypermarket, the issue of stock management of perishable items may happen in case that a quality drop is undetected before expiry date. Commonly, consumers want to look over a wide assortment of quality perishable item. To exceed expectations in hypermarket retails, those fresh food merchandise require close checking. This is on account of short-lived things can crumble and not ready to use after some time particularly when they achieve lapse date. Attributable to this, perishable items ought to be sold out before expiry date or else they must be discarded. Thus, quality disintegration is a mind-boggling course for perishable products. Past research, Heller (2002) professed that nature of perishable products impact customers choice of grocery store. Past literature on perishable stock control revealed that the nature of the item is an element of item life time. Conventional stock arranging strategies for items with long life cycles may not be reasonable for items with short life cycles. This implies a proper management of perishable inventories required to screen the condition of those products.

Perishable products inflict difficulties on stock management, exchanging off stock outs and on-shelf accessibility against wastage because of expiry. Successful retailing is about change, understanding customers and their needs both as far as products and services. Customer needs are continually changing and the pace has quickened lately Kaipia, R., Dukovska-Popovska, I., Loikkanen, L., (2013). Customers will keep on demanding quality, comfort and development, together with an accommodating and amiable place to shop. The most straightforward method for handling the issue of perishability is to alter standard durable stock theory. Perishable stock is a subject of particular worry in the food and basic supply retail hypermarket segments and this has been the focal point of a few investigations. At the buy point, the quality impression of perishable items catches apparent inherent and extraneous quality prompts (Banović et al., 2009).

**Lead Time Incompetency Frequently Effects Overall Results**

Perishable products ordinarily require short lead-times to guarantee the greatest possible time period of reasonable convenience in the stores. Thus, conventional retailers should address the issue of conveyance time (Ishfaq et al., 2016), and online retailers should consider the advantages of offering physical areas, for example, stores and showrooms (Brynjolfsson et al., 2009). Scholars and professionals from various orders perceive that holding up times influence shopper fulfillment and inclinations (e.g. Zauberman and Urminsky, 2016).

Waiting time has numerous significant connotations in the service industry since it reflects the match among supply and demand (Mittal, 2016). Suppliers give a measure of lead time; in any case, these numbers are not for generally precise. The differences between your ordinary receipt date and genuine receipt date can end up expensive from the consequent unconstrained over stocks, out of stocks, and collapsed buyer appraisals. Lead time following and lead time deciding are mission fundamental to the accomplishment of your production network especially perishable products in a hypermarket industry (Bielen, F.,2007). Lead time forecasting, like demand forecasting, ought to use a course of action of math computations to register the correct lead time days to use in organizing purchase orders. Also, like demand forecasting, the lead time forecasting should climb and down according to changes in publicize, business effects and consistency of item. The capacity of lead time estimates to be precise and powerfully refreshed reductions the measure of security stock required in your stock. The ensuing lead time estimate is then copied by the ordinary demand figure for consistently pushing ahead to choose what number of units ought to be carried on the racks to keep up advantage level amidst solicitations. Lead time anticipating has about as much impact on the energizing method as demand checking. Lead time implies the amount of days between arrange situation and receipt, including the time it takes to enter the receipt into the system, put it on the rack, or for the most part make it open accessible to be obtained. Diminishing the vacillation of dealer lead time will increase in-stock levels and decrease security stock levels used to compensate for assortment. Working up a supplier consistence program – including the separated lead time and lead time change uncovering required to encourage the program – is a best practice. Learning of each seller's execution and the impact of poor execution on stock levels and lost arrangements help focus buyer and broker exchanges on this key driver of reviving accomplishment. Lessening the difference in vender lead time will increment in-stock levels and diminishing security stock levels used to make up for arrangement. Working up a provider consistence program – including the isolated lead time and lead time change revealing required to empower the program – is a best practice. Without a sound lead time anticipating process and toolset, purchasers will tend to add pad stock to decrease lost deals.

**Data Accuracy influences the Inventory Planning determinants**

Forecast accuracy is a critical test for any affiliations and that joins hypermarket industry. Forecast blunder can be a prompt explanation behind stockouts, stock improvement and also costly changes in the mast schedule. Despite the broad time and effort utilized on evaluating, figures are still to a great degree erroneous. In summation, estimate incorrectness is expensive and the disorder and disillusionment coming about because of it is broad. Others, in any case, push the necessity for forecasting exactness with a particular ultimate objective to permit a fitting and convincing response by an association. The significance of a generally precise gauge to hypermarket execution calls for comprehension of the components which influence estimate exactness.

Various researchers have inspected how the usage of various frameworks impacts forecast exactness. These experiments revolve around comprehension of the specialized precision of different techniques however they don't propose how organizations may function to enhance forecast exactness. Most of this study focused on the measure design rather than the customers

evaluations. Forecast are best delivered for arrangements orchestrating and a short time later flowed to various capacities with respect to their usage. Single estimations of the measure and forecast accuracy prompt enhanced forecasts. In conclusion, organizations respond to forecast incorrectness by regular change.

To handle this issue, further developed renewal approaches were produced dependent on the general thought of moving toward the whole conveyance chain as a recharging driven process dependent on solid gauges instead of a clueless framework dependent on rather dubious request forecast (Simchi-Levi and Kaminsky, 2002).

### **Discussion and Conclusion**

This paper adds to the present circumstances where the forecasting accuracy planning ought to create stock benefit by operationalizing the data utilization for waste decrease and enhanced rack accessibility. With regards to perishable products with a short timeframe of realistic usability, waste can be decreased by guaranteeing that the item reaches the consumer in impeccable request and with most extreme residual time span of usability. Then again, squander decrease is the key factor in expanding the supportability of the supply chain (Ferguson, M. E. and Koenigsberg O., (2007). Because of the short lifetime of the perishable items, the time management ends up important. The restricted accessible time should be carefully shared between supply chain exercises.

The literature demonstrates that enhancing the forecasting accuracy in the supply chains requires concentrating on various parallel issues in physical merchandise flow and in data flow. To begin with, firstly, inventory supply chain structure ought to be streamlined to maintain a strategic quality perishable goods. Second, the capacity needs to help the specific highlights of perishable goods and ought to be moved as near the retail customer as possible. Third, the role of an efficient forecasting process turns out to be more essential, because a larger share of the chain operates on the basis of forecasts, which ought to decrease stock wastage.

We presume that the plan of a lessening stock wastage needs to serve specific highlights of perishable items to accomplish a more manageable execution. It was discovered that synchronizing data and material flow is the fundamental while enhancing the supportable execution of the stocks. Tweaking the everyday and week by week ordering plan as indicated by the demand pattern, remarkably affects the responsiveness of the supply chain for perishable products. This research gives another point of view on how hypermarket can manage with sustainability at an operational level by planning forecasting accuracy. We believe the research provides insights of a perishable goods environment and revealed various sources of improvement. This should overall lead to better service levels, fewer expired products and low inventory, thus higher supply chain efficiency.

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# Perceived Higher Education Climate of Academics in Malaysian Private Institutions in Industry 4.0

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## Abstract

**Purpose:** The Malaysia Higher Education Blueprint 2015-2025 was devised with the aim of aligning knowledge, industry and humanity. Due to shortcomings in digital culture, training, support and leadership, the adaptation of Industry 4.0 is worthy of attention. The current study uses the Organisational Climate Measure (OCM) devised by Patterson et al (2005) adapted from the Competing Values Framework (CVF) by Quinn and Rohrbaugh (1983). The OCM has received support as a comprehensive and general model of organizational efficiency. This paper will analyse the four climate dimensions of human relations, internal processes, rational goal and open systems.

**Design/methodology/approach:** Studies of organisational climate were identified from Emerald, Science-Direct and JSTOR databases from 2012 to 2018. Twenty-eight studies were identified and each have been allocated into the four quadrants. The Malaysia Higher Education Blueprint 2015-2025 is applied to predict the higher education climate of academics in private institutions.

**Findings:** Human Relations has more interest in research (12 studies), Internal Processes (8 studies) followed by Open Systems (4 studies) and Rational Goal (4 studies). The fourth industry revolution is causing an impact towards the role of academics. Big Data and Artificial Intelligence will automate most of HR processes which is expected to cause disruptions in talent management. Students are becoming meaning makers and co-creators of knowledge. Private and public institutions are now harmonised into one higher education regulatory framework.

**Research limitations/implications:** Organisational climate is an important and neglected mediating factor between HR and employee outcomes. If the strength of organisational climate is increased, further improvements and stronger outcomes can be achieved. Further empirical study will be pursued.

**Practical implications:** This study is concerned with the impact of change in organisational systems on groups and individuals. Organisational climate is the measure to examine how organisational systems are perceived by employees. Such effort will provide organisations with deeper insights on whether these systems have been effectively implemented.

**Originality/value:** Malaysian higher education climate in Industry 4.0 applying the organizational climate measure (OCM) adapted from competing values framework (CVF).

**Keywords:** Organisational Climate, Private Higher Education, Human Relations, Internal Processes, Open Systems, Rational Goal

## Introduction

Industry 4.0 has accelerated the coordination between IT world, universities and various manufacturing associations to reshape industry (Bernard, 2016). The potential of this new revolution aims to create opportunities for new roles that enable humans to partner their strengths with technology for greater innovation, alternative environments and institutions (Deloitte, 2018). In Malaysia, the government has formulated and implemented various strategies to revolutionise the education industry (Cheng, Mahmood and Yeap, 2013). It has been an ongoing effort for the higher education system in Malaysia to be envisioned as a centre of higher education excellence by 2020. The theme of the 2018 mandate “Higher Education 4.0: Knowledge, Industry and Humanity” has called for a revamp of the higher education ecosystem (MoHE, 2018). The theme calls for a redesigning of higher education to see how institutions can remain relevant and competitive in Industry 4.0.

Schwab defined the first three industrial revolutions as the transport and mechanical production revolution of the late 18<sup>th</sup> century, the mass production revolution of the late 19<sup>th</sup> century, and the computer revolution of the 1960s (Bawany, 2017). Industry 4.0 is a concept founded in Germany to automate manufacturing processes into smart chains of communication between production, products, components, plants and human (Magruk, 2016). At the core of Industry 4.0 is the advent of “cyber-physical systems”, the blending of hardware, software and people to complete the work (Baldassari and Roux, 2017). We can say it is the digital revolution or “digital tsunami”. This is represented by objects connected to manufacturers through built-in sensors which is estimated to grow from 4.9 billion in 2015 to over 6.3 in 2016 and reach 20.7 billion in 2020 (Gartner in Celaschi, 2017). These are new possibilities of mega-shifts in datafication, robotization and cognification. In this environment, the world will be over-connected and become eventually digitally obese.

Due to emerging technologies, computing power has grown exponentially from advances in Big Data and Artificial Intelligence (AI). Disruptive technologies such as advanced robotics, the Internet of Things and the automation of knowledge work are expected to dramatically reshape business and social landscape for what it is today (MEB, 2015). Human resources will be faced with challenges such as selecting the right set of new technological tools, overcoming existing organisational culture and managing multi-generational employee expectations. It is expected that by 2020, half of the workforce will comprise of millennials or Gen Y (born between 1980 and 2000) employees (Sivathanu and Pillai, 2018). This generation has grown in the era of internet, social media, and smartphones and have different expectations from their employers such as anytime-anywhere collaboration, instant feedback, open culture and data-driven decisions. Big Data and AI will automate most of HR processes which is expected to cause disruptions in talent management and higher education institutions will be faced with such consequences.

The first part of the paper will summarise the evolution of higher education in Malaysia. The concepts of Organisational Climate and the Competing Values Framework will be reviewed thereafter. The respective quadrants will then be summarised to allocate past studies to each quadrant. The conclusion will summarise the application of the Malaysia Higher Education Blueprint 2015-2025 to predict the higher education climate of academics in private institutions.

**Literature Review*****Evolution of Higher Education in Malaysia***

During the first and second industry revolutions (1784 and 1870 respectively), Malaysia was under colonial-rule. There were no universities at that time. After independence in 1957, Malaysia (then Malaya) was formed together with Singapore, as well as Sabah and Sarawak. In 1959, University Malaya in Singapore established a University College in Kuala Lumpur. So at that time, there was only one University College in Malaya. The third revolution occurred in 1969 where automation, computers, and electronics were at its height (Bawani, 2017). It is then, University of Malaya became the only university in Malaysia. During this time, university education belongs to the elite and access to higher education was very restricted.

From the time of independence until 1996, higher education was a state monopoly. The State involvement was not an issue. From late 1960s to 1970s universities were state-controlled who determined the student intake, budgetary and financial regulations and until 1990s when it also intervened in core academic matters and institutional autonomy (Morshidi, 2006). Universities were in existence for the primary purpose of implementing the State's objectives (Kaneko, 2007). The University and University Colleges Act were introduced in 1971 which is an important instrument that enabled State-centrism and intervention in running of State-controlled higher education institutions. By the late eighties, the State had a major role in determining the development of university education and the establishment and subsequent running of universities.

The late nineties saw the State-University relationship taking another complex dimension and at a different level. The education reforms governing both public and private education were tabled in 1996 and were passed in Parliament. The final phase of the changing relationship between the State and the university came about in the establishment of the Ministry of Higher Education (MoHE) in 2004. MoHE represented the State from then on.

In the late 2010, the Malaysian government launched the economic transformation programme and education played a critical role. Private institutions have gained prominence due to the liberalization of higher education in Malaysia. The role of the private sector shows that private higher education institutions complement the public higher education institutions (Arokiasamy et al, 2014) and such effort was to allow more higher education institutions, including private institutions to operate in Malaysia (Cheng, Mahmood and Yeap, 2013). Due to this, there was a rapid growth of private higher education institutions. In 2017, there are 46 private universities, 32 private university-colleges, 9 foreign universities branch campus and nearly 388 private colleges (MoHE, 2017).

Industry 4.0 is significantly taking place in the higher education system in Malaysia. Industry 4.0 is the era of cyber-physical systems, internet of things and big data (Buasuwan, 2018). In 2013, MoHE began developing the Malaysia Education Blueprint 2015-2025 (Higher Education) or the MEB (HE). Among the initiatives by MoHE under this blueprint are: i-CGPA (integrated cumulative grade point average), 2U2i, CEO@Faculty, APEL and TVET 4.0. These initiatives have sparked the involvement of management and academics alike to spur the movement for innovation, creativity and openness. Learning in the new digital era is changing as students now expect to get most of their information from digital sources rather than from reading books. Because of the interactive nature of the digital technology, students can now become meaning makers and co-creators of knowledge through interactions online with teachers, fellow students and the wider community (Buasuwan, 2018). New learning spaces and pedagogies are needed such as heutagogy, paragogy and cybergogy (MoHE, 2018). As such, academics are the drivers to ensure these initiatives are successfully implemented as they are key determinants of the quality of education (Shoaib and Mujtaba, 2017).

### *Perceived Organisational Climate*

Organisational climate is the view that employees have about the various aspects of their organisations. Litwin and Stringer (1974) first defined the concept of organisational climate and described it as a set of measurable properties of work environment, perceived directly or indirectly by the individuals. Organisational climate is said to have a relatively enduring quality of the total organisation environment experienced by employees (Denison, 1996). Both researchers claimed that organisational climate influences employee behaviour in terms of motivation and values of a particular organisation.

Organisational climate is termed as “perceived” as these are perceptions made by employees. According to Cafferkey (2014), organisational climate has the utility of capturing the perception of work practices by organisational members that affect their daily interactions. That is, the typical or average way people in an organization ascribe meaning to that organization (James, 1982; Schneider, 1981). Hellreigel and Slocum (1994) viewed that OC is perceptual in nature, which is descriptive of a situation rather than evaluative. Whereas in the case of attitudinal measures, it is evaluative. Related measures such as job satisfaction and job involvement are considered as attitudinal measures. According to Biswas (1992) the confusion of OC stems from the view whether OC is intended to capture the objective features of the organisation or the features perceived by employees. The study of organisational climate is intended to capture how the objective reality is captured through the lens of the employee and how these realities impinges upon the individual members and results in their respective behaviours (Biswas, 1992). The question remains that a number of organisational climates may emerge through the perceptions of various members. However, if a sizeable number of individual perception points is obtained, the organisational reality can be accurately captured. Hence, organizational climate is the overall meaning derived from the aggregation of individual perceptions of a work environment.

Steinke et al. (2015) stated that climates reflect employees’ perceptions of the policies, practices, and procedures that are expected, supported, and rewarded in regard to the human resources of the organization. As an organization’s work climate speaks volumes of its workplace pleasantness, one can logically argue that an inclusive and socially supportive organizational climate works to alleviate employees’ job stress and helps mitigate its negative consequences on the organization (Vong, Ngan and Lo, 2018). A supportive organizational climate is an indication of the overall amount of perceived support employees receive from their immediate peers, other departments, and their supervisor that they view as helping them to successfully perform their work duties (Luthans et al, 2008).

McMurray and Scott (2013) studied the organisational climate of academics in Australia and identified five dimensions relating to climate which are trust, support, recognition, fairness and innovation. They found that academics were more sensitive to organisational climate and that it should be improved to ensure that any barriers to participation were removed. Musah et al (2016) in his research, studied the organisational climate as a predictor of workforce performance in the Malaysian public higher education institutions. The motivation for doing so is to investigate whether OC predicts the performance of academic staff. They found a strong predictive causal effect between OC and WFP. Hence both studies confirmed how certain outcomes are predicted by the perceptions of organisational climate of academic staff of their organisation. This study will be focusing on academics of private higher education in Malaysia which differs from the two studies stated above.

There were many measures undertaken by previous researches to measure organisational climate. The latest models have been adapted from previous researches such as, Assor et al (2002), Chicago school research, Adams and Forsyth (2009) and Voelkl (1997). Litwin and Stringer (1968) model remains a popular model which measures the structure, responsibility, rewards, and support of the organisation. This paper intends to elaborate on the competing

values model for measuring the perceived higher education climate of academics in private higher education institutions in Malaysia. This model applies the rich mix of competing values and perspectives which reflect an accurate measure of perceptions of employees. The following section will illustrate the model.

### ***Competing Values Model***

The Competing Values model, developed in a series of articles and studies by Quinn and his colleagues (Quinn & Rohrbaugh, 1981, 1983; Quinn & McGrath, 1985), proposes that organizational effectiveness criteria can best be understood when organized along fundamental dimensions – flexibility versus control and internal versus external orientation. The approach incorporates a range of fundamental dimensions of values into a single model (West, 2001). A major strength of this model is its derivation from four major schools of study of organizational effectiveness, reflecting long traditions in management and organizational psychology: human relations, internal process, open systems and rational goal approaches.

By combining these orientations into one model, Quinn and Rohrbaugh aimed to provide a broad conceptual map of the domains of organizational theory. Such a map is useful in identifying the required topography of climate measure applicable to a wide range of organizations. This model is also useful in reflecting the means for implementing those values in terms of managerial practices and the ends or outcomes which are emphasized or which compete in each domain. The model does not propose that organizations will locate predominantly in one quadrant, but, reflecting the rich mix of competing views and perspectives in organizations, proposes that organizations will be active and give emphasis to each domain but with differing strengths (International Encyclopedia, 2004).

Patterson et al (2005) validated the Competing Values framework by Quinn and Rohrbaugh and found it to be a viable measure of organisational climate. Patterson and colleagues (2005) developed a more thoroughly validated questionnaire that would measure the global organisational climate. A survey was administered on a sample of 6869 employees across 55 manufacturing organisations. They found concurrent validity, predictive validity and discriminant validity. In another research, Bernstrom et al (2013) adopted the competing values framework of their research in Norway. They translated the survey into Norwegian language and distributed the survey among employees in an international service sector company. The model was found to have a reliable measure with a stable factor structure. Both researches were common in confirming that this framework is a valid measure of organisational climate.

### ***Methodology***

#### ***Dimensions of Organisational Climate***

The Organisational Climate Measure (OCM) developed by Patterson and colleagues (2005) has 17 dimensions. It covers different aspects of organizational efficiency such as employees' perception of supervisory support (e.g. Nijman & Gelissen, 2011), the organization's emphasis on training (e.g. Almeida-Santos, Chzhen, & Mumford, 2010), the organization's orientation towards change (e.g. Zhou & Wu, 2009; West & Farr, 1990), and employee welfare (e.g. Jiao, 2010). The measure is chosen for this study as Industry 4.0 is the fourth revolution and the OCM has received support as a solid theoretical model (Bernstrøm, Lone, Bjørkli, Ulleberg, & Hoff, 2011; Lamond, 2003; Kwan & Walker, 2004; Howard 1998). OCM is argued to be a comprehensive and general model of organizational efficiency, and is therefore said to be a valid model across sectors and countries (Bernstrøm et al., 2011; Patterson et al., 2005).

Studies of organisational climate were identified from Emerald, Science-Direct and JSTOR databases from 2012 to 2018. Twenty-eight researches were identified and each have been allocated into the four quadrants. Out of those, human relations has the most significant results found (12 studies), internal process second (8 studies) followed by Open Systems (4 studies)

and Rational Goal (4 studies). Table 1-4 below outlines the summary of each study according to the quadrant.

### **Human Relations**

The human relations approach (internal focus and flexibility in relation to the environment) reflects the tradition derived from the socio-technical (Emery & Trist, 1965) and human relations schools (McGregor, 1960). The human relations school stresses upon communication, motivation and leadership (Armstrong, 2000). This approach emphasizes the well-being, growth and commitment of the community of workers within an organization. Coordination and control are achieved through empowerment and participation, and interpersonal relations are supportive, cooperative, and trusting in nature. Climate dimensions representing this quadrant are employee welfare, autonomy, participation, communication, emphasis on training, integration and supervisory support. Table 1 below presents the research studies showing the application of organisational climate in the human resource quadrant.

Under the human relations quadrant, twelve studies were found from 2012-2018. They were conducted in various regions, namely, USA, Nigeria, UK, Malaysia, New York, Bhutan, Lebanon, The Netherlands, India, Finland and Slovenia. The variables which show a relationship with human relations are: autonomy-, competence- and relational-support, motivation, job satisfaction, employee involvement, personality, employee welfare, emotional intelligence and creativity, leadership, workaholism, well-being and affiliation. Out of the eleven, two studies adopted the OCM model. The other measures were from the model by Litwin and Springer (1968), Healthy Organisation Questionnaire (Elo, et al 2018) and the HRM climate scale by Delaney and Huselid (1996).

Table 1: Studies based on Human Relations

	<b>Author (year)</b>	<b>Study</b>	<b>Sample</b>	<b>Findings</b>
1.	Adams, C. and Khojasteh, J. (2018)	Igniting students' inner determination: the role of a need-supportive climate	Random sample of students in 5 <sup>th</sup> , 8 <sup>th</sup> and 11 <sup>th</sup> grades in 71 schools in southwestern city in USA. 3233 students with response rate of 80%. Various scales by Assor et 2002, Chicago school research, Adams and Forsyth, 2009 and Voelkl's 1997	Autonomy-support, competence-support and relational-support are aligned to students' psychological needs. Expressed higher grit toward academic pursuits.
2.	Adeniji, A., Salau, O., Awe, K. and Oludayo, O. (2018)	Survey datasets on organisational climate and job satisfaction among academic staff in some selected private universities in Southwest Nigeria	A total of 293 copies of questionnaires were received to selected five (5) private Universities in the South-West Zone of Nigeria. Majority of the questions used were adapted with some modifications from a job satisfaction questionnaire.	It can be concluded that the success of these universities depend on the ability to impact on the motivation ad job satisfaction of academic staff with a wide range of benefits to promote retention and reduce job-hopping.
3.	Bosak, J., Dawson, J.,	Employee involvement	4,702 employees nested in 33 UK hospitals.	EI climate level was positively associated with individual-

	Flood, P. and Peccei, R (2017)	climate and climate strength	EI climate scales were developed for present study.	level employee attitudes (i.e. job satisfaction, organizational commitment).
4.	Ahmad, K.Z., Jasimudin, S.M. and Wang, L.K. (2017)	Organisational climate and job satisfaction: do employees' personalities matter?	262 responses from various Malaysian companies – Litwin and Stringer's Model 1968	There are moderating effects of personality traits on the relationship between certain aspects of org climate and job satisfaction.
5.	Destler, K. N. (2016)	A Matter of Trust: Street Level Bureaucrats, Organisational Climate and Performance Management Reform	A large urban school district in New York City (N=3241). CVF human relations climate dimensions	Quanti and quali data were analysed. Employee welfare is positively associated with PM reform while involvement and dissent is negatively associated. Trust among colleagues and supervisory support affect certain performance behaviours more than others.
6.	Jafri, M.H., Dem, C. and Choden, S. (2016)	Emotional Intelligence and Employee Creativity: Moderating Role of Proactive Personality and Organisational Climate	250 full-time employees in two public sector organisations in Bhutan. – CVF model	Moderated regression analyses revealed that employee's proactive personality and organisational climate both influenced the relationship between emotional intelligence and employee creativity.
7.	Maamari, B.E. and Majdalani, J.F. (2016)	Emotional intelligence, leadership style and organisational climate	324 responses from employees in Lebanon. Litwin and Stringer 1968	The results show that the leaders' EI does affect his/her leadership style. Moreover, the leaders' style affects directly the respective employees' feeling of organizational climate to varying levels. The variance between different styles is found to be small.
8.	Shaufeli, W.B. (2016)	Heavy work investment, personality and organisational climate	Dutch employees from a wide range of companies and occupations (n=1,973), who participated in an online survey. OC measure from Mazetti et al 2016.	Workaholism is exclusively related to an overwork climate (and not to a growth climate), whereas work engagement is exclusively related to an employee growth climate (and not to an overwork climate).
9.	Muduli, A. (2015)	High performance work system, HRD climate and organisational performance: an empirical study	150 employees working in a power-based company in India. HRD Climate Measure by Rao and Abraham 1986	The result proved that HPWS influences organizational performance through a supportive development environment (HRD climate) based on openness, confrontation, trust, authenticity, proaction,

				autonomy, collaboration and experimentation (OCTAPAC).
10.	Jain, K.K., Sandhu, M.S. and See, K.G. (2015)	Organisational climate, trust and knowledge sharing: insights from Malaysia	Survey data were collected from 231 participants from 25 multinational firms. Executives at senior- and middle-management levels. Instruments taken from: Bock et al, 2005, Yang et al 2009 and Van Den Hooff and de Ridder 2004	The research findings indicate that organizational climate dimension, affiliation, is positively related to both KD and KC, while fairness dimensions of organizational climate are not positively related to KD and KC. Among the two dimensions of TR (cognitive and affective), it was found that cognitive TR is positively related to KD, while affective TR is positively related to KC.
11.	Viitaala, R., Tanskanen, J. and Santti, R. (2015)	The connection between organizational climate and well-being at work	Connections between perceived organizational climate and well-being at work were studied through quantitative data gathered from 24 public day-care centers in Finland. OC measure was based on the five questions from the Healthy Organization Questionnaire (Elo <i>et al.</i> , 2008)	The unit-level analyses revealed that different types of organizational climates were connected to different types of job well-being in the unit.
12.	Sirca, N.T., Babnik, K. and Breznik, K. (2012)	Towards organisational performance: understanding human resource management climate	Sample of 574 Slovenian employees from the manufacturing sector. The model of HRM-attitudes relationship was tested with partial least squares approach to structural equation modelling. HRM climate scale by Delaney and Huselid 1996	Two HRM climate dimensions (collaboration and structure) have an indirect (through job satisfaction and job involvement) and direct effect on perceived organisational performance, although dimension “collaboration” has a much stronger effect on employees’ job satisfaction, and perceived organisational performance factor, than the “structure” dimension.

### **Internal Process**

The internal process approach (internal focus and tight control within the organization) reflects a Tayloristic concern with formalization and internal control of the system in order that resources are efficiently used. Formalization refers to the written documentation of rules, procedures and policies to guide behaviour and decision making (Wood et al, 2006). Coordination and control are achieved by adherence to formal rules and procedures. Climate dimensions include formalization and tradition. Table 2 below displays the studies conducted in the Internal Process quadrant.

Eight studies were conducted from 2012-2018. These studies were held in India, Malaysia (2), Iran and Ireland. The variables which formed a relationship with internal process quadrant include job positions/gender, workforce performance, role clarity, high performance work system and control. Two studies adopted the OCM model. The others applied various scales by Litwin and Stringer (1968), ClimateQUAL, Hall et al (2010, Pethe et al 2001 and Hay Group 2002.

Table 2: Studies based on Internal Process

	<b>Author (year)</b>	<b>Study</b>	<b>Sample</b>	<b>Findings</b>
1.	Datta, A. and Singh, D. (2018)	Determining the dimensions of organisational climate perceived by the hotel employees	504 employees across 18 luxury hotels in India. Four dimensional climate constructs labelled as ‘Esprit of Profession, Organization & Workgroup’; ‘Leader Facilitation & Support’; ‘Cohesion, Clarity & Objectivity of System’ and ‘Job Challenge, Variety & Feedback’.	Analysis of variance determined that significant differences in perception exist among the employees of different star category of hotel, job positions and gender about the climate.
2.	King, K.A. (2017)	The Talent Climate: Creating an organisational context supportive of sustainable talent development through implementation of a strong talent system	A strategic climate for talent and strong talent system are theorised with “strong situation” specifications: distinctiveness, consistency, consensus and context. (Conceptual paper)	A strategic climate for talent is defined. Empirical study is required to develop and validate the talent climate construct.
3.	Musah, M.B., Mohd Ali, H., Mohd Kamil, N. et al (2016)	Organisational climate as a predictor of workforce performance in the Malaysian higher education institutions	800 academic staff of 8 selected public HEIs. - OC construct by Litwin and Stringer, 1968	Strong predictive causal effect between OC and WFP. Positive OC enhances academic staff performance.
4.	Lee, M.C.C. and Idris, M.A. (2016)	Psychosocial safety climate versus team climate: The distinctiveness between the two organizational climate constructs	412 employees from 44 teams (72.6 per cent response rate) in Malaysian private organizations participated in the current study. Instruments from Hall et al 2010, Kivimaki and Elovainio 1999, Kristensen et al	Research findings revealed that performance feedback and role clarity mediate the relationship between PSC and job engagement, and that there is no direct effect between the variables, team climate, and job resources. As expected, the study also discovered that job engagement mediates the relationship between PSC

			2005, Bakker et al, 2003	and team climate related to job performance.
5.	Yaminfirooz, M., Nooshinfard, F. and Siaman, H. (2014)	Structural equation modelling of organisational climate in Iranian academic libraries	The statistical population of the research included all staff working in 96 central libraries of Iranian governmental universities ( $N = 520$ ).  Special instrument ClimateQUAL questionnaire for libraries	The $t$ values of factor analysis pass showed that the effect of all indicators of ClimateQUAL on organizational climate was significant. The factor loading of the pass model showed that among the nine indicators, climate for psychological safety with 5.24, climate for innovation with 5.06 and climate for leadership with 4.93 had a higher effect on organizational climate of the libraries.
6.	Cafferkey, K. and Dundon, T. (2014)	Explaining the black box: HPWS and organisational climate	Two phases: 1. Senior HR Managers of top performing organisations in Ireland – 169 sample; 2. Workers and managers – 529 sample. OC is mediating variable - CVF measures of supervisory support and integration by Patterson et al (2005)	OC is shown to be an important and neglected mediating factor between HR and employee outcomes. Strength of relation is dependent on level of analysis.
7.	Worthington, R. (2012)	Prison organisational climate: exploring the impact of climate on emotional well-being	149 prison staff from one male Category C prison. CVF model.	All staff placed emphasis on the control quadrant of OC.
8.	Bamel, U.K., Rangnekar, S., Stokes, P. and Rastogi, R. (2012)	Organisational climate and managerial effectiveness: an Indian perspective	245 managers/ executives from Indian organisations – modified edition of instrument by Pethe et al 2001, Hay Group 2002	Organizational climate dimensions, i.e. organizational process, altruistic behaviour, role clarity and communication, results-rewards orientation and certain aspects of interpersonal relationships play a significant role in increasing managerial effectiveness.

### Open Systems

The open systems approach (external focus and flexible relationships with the environment) emphasizes the interaction and adaptation of the organization in its environment, with managers seeking resources and innovating in response to environmental (or market) demands (Shipper & White, 1983). Open systems need to interact with their environments to survive and develop

(Waddell, Cummings & Worley, 2007). Climate dimensions which are likely to reflect this orientation are flexibility, innovation, outward focus and reflexivity. Table 3 below shows the studies based on Open Systems.

In the Open Systems quadrant, there were four studies conducted from 2012-2018. These studies were undertaken in China, Sweden, Norway and Iran. The variables which has a relationship with open systems are job stress, intention to stay, social support, business-to-business and performance. Out of the four, only one study applied the CVF model. The scales used are Newman’s perceived work environment scale, QPSNordic Scale by Dallner et al (2000) and Jaw and Liu’s (2003) OC scales.

Table 3: Studies based on Open Systems

	<b>Author (year)</b>	<b>Study</b>	<b>Sample</b>	<b>Findings</b>
1.	Vong, L.T., Ngan, H.F.B. and Lo, P.C. (2018)	Does organizational climate moderate the relationship between job stress and intent to stay? Evidence from Macau SAR, China	Non-probability sampling design for data collection (n=514). A semi-structured questionnaire has been prepared and a street survey has been carried out at popular public places in Macau. Organizational climate was measured using Newman (1977)’s perceived work environment (PWE) scale.	Stressful employees working in organizations characterized by unsupportive organizational climate had far less desire to stay with the organization than those working in organizations with supportive organizational climate.
2.	Muhonen, T., Jonsson, S. and Backstrom, M. (2017)	Consequences of cyberbullying behaviour in working life The mediating roles of social support and social organisational climate	3,371 respondents by public opinion poll in Sweden. QPSNordic scale by Dallner et al, 2000	Social organisational climate can have a mediating role in the relationship between cyber bullying behaviour and health, well-being, work engagement and intention to quit. Contrary to earlier face-to-face bullying research, the current study showed that cyberbullying behaviour had stronger indirect than direct relationships to health, well-being, work engagement and intention to quit.
3.	Bernstrom, V.H. (2013)	Assessing a Norwegian translation of the Organisational Climate Measure	555 staff of a Norwegian subsidiary of an international service sector company offering business-to-business services. CVF model.	Satisfactory internal reliability and interrator agreement for 17 scales and confirmatory factor analysis supported the original factor structure. OCM is a reliable

				measure with a stable factor structure.
4.	Shahin, A., Naftchali, J.S. and Pool, J.K. (2013)	Developing a model for the influence of perceived organizational climate on organizational citizenship behaviour and organizational performance based on balanced score card	321 managers of Mazandaran (Iran) small- to medium-sized enterprises. Organizational climate is stated, according to Jaw and Liu's (2003) model, to include innovative organizational climate and cooperative organizational climate	Positive perception of organizational climate influences on increasing organizational citizenship behaviour outbreak and performance of enterprise, and organizational citizenship behaviour in turn has positive and significant impact on organizational performance. The influence of organizational climate on all sub-criteria of performance except internal processes has been confirmed.

### ***Rational Goal***

The rational goal approach (external focus but with tight control within the organization) reflects a rational economic model of organizational functioning in which the emphasis is upon productivity and goal achievement (Hall, 1980; Clinebell, 1984). The primary emphasis is on the pursuit and attainment of well-defined objectives, where norms and values are associated with productivity, efficiency, goal fulfillment and performance feedback (Patterson et al, 2005). In general, goals should be moderately challenging, include a method for measuring, monitoring and feeding back information about goal achievement and be clearly understood by all employees (Waddell, Cummings & Worley, 2007). Climate dimensions comprise of clarity of organizational goals, effort, efficiency, quality, pressure to produce and performance feedback. Table 4 below presents the final quadrant in the CVF model, the Rational Goal.

There were only four studies conducted in this quadrant. They were carried out in Australia, Kenya, Italy and Brazil. The variables applied to rational goal are organisational resources, six sigma, intellectual capital and in banking context. They applied various concepts. Only one was done using the CVF model and the others applied various scales. Among them are the OC measure from Ekvall (1983), action research and Mazetti et al (2016), Luz (2003), and Maciel (2011).

**Table 4: Studies based on Rational Goal**

	Author (year)	Study	Sample	Findings
1.	Arbrecht, L., Breidahl, E. and Marty, A. (2017)	Organisational resources, organisational engagement climate, and employee engagement	2,681 responses from clients of a large consulting company in Australia from local govt, education/training, state govt, healthcare, professional, scientific and technical services. Clarity of	The CFA and SEM analyses yielded good fit to the data. As proposed, all six organizational resources were positively associated with organizational engagement climate. Organizational engagement climate was

			organisational goals – CVF model	positively associated with job resources and employee engagement.
2.	Douglas, J., Muturi, D., Douglas, A and Ochieng, J. (2017)	The role of organisational climate in readiness for change to Lean Six Sigma	46 responses from employees of Kenya Institute of Management (KIM) – OC measure by Ekvall 1983	Positive scores across each dimension of the survey indicate that the KIM climate is ready for the next stage of its LSS implementation lifecycle although there may be some isolated pockets (individuals or groups) of resistance to change. However, the range of scores on each dimension indicates that there is disagreement within the survey group about the overall organisational climate.
3.	Carlucci, D. and Schiuma, S. (2012)	Evaluating organisational climate through IC lens: the case of a public hospital	Action research methodology. Italian public hospital, 560 employees as respondents.	The AR project highlights that analysing OC according to an IC (intellectual capital) based perspective supports the planning of management initiatives aimed to improve climate and its components and, in turn, the “value” embedded in services outcomes.
4.	Tortorella, G.L., Escobar, L. and Rodrigues, C. (2015)	Organizational climate research: a proposed approach focused on banking institutions	General Satisfaction Index (GSI) to measure climate with a mathematical approach supported by liner algebra concepts.  Managers in banking industry, Brazil	The proposed method has proved to be a great ally to climate research and also to identify the need for improvements in banking context. The use of the 5W2H tool has proved important to improve weak points observed in the climate analysis, providing an initial guide to raise the agency’s GSI and achieve the goals pursued by the company.

### Conclusion and Recommendation

In the transformation of the Malaysian higher education system, the focus on the human relations dimension is essential. Further to aspirations of technology and innovation, the leaders of private higher education institutions play a critical role to match these motivational elements to the 10 Shifts of MEB HE (2015). Adams and Khojasteh (2018) found that relational-support aligned students’ psychological needs to expressed higher grit toward academic pursuits. Adenji et al (2018) in their study of academic staff in private universities

in South Nigeria stated that the success of universities is dependent upon a wide range of benefits to promote retention and reduce job-hopping. Two studies found that organisational climate has an impact on job satisfaction (Adenji et al, 2018; Ahmad et al 2017). Hence, these climate dimensions are relevant for the study of higher education climate of academics in private institutions in Malaysia.

In terms of internal processes, the advent of Industry 4.0 will be influencing the new higher education ecosystem which MEB is aiming to achieve. The focus will now be from converting inputs to outcomes. Musah et al (2016) in their study of academic staff of public higher education institutions in Malaysia found that positive organisational climate enhances academic staff performance. In the past, the mass production delivery model took centre stage. In the current change, technology-enabled innovations will be used to deliver and tailor education for all students. As such, technologies and innovations such as Massive Open Online Courses (MOOCs) and blended learning will be actively pursued. This will enable greater dynamism and personalisation of students' learning experience. Bamel et al (2012) found that organisational climate dimensions play a significant role in increasing managerial effectiveness. Since private higher education institutions are important and integral to the system, streamlining processes affecting them is of high importance.

Under the new education system, structurally there will be a transition from the current centralised governance system to a model based on earned autonomy (MEB, 2015). Achieving this will only be possible with a strong focus on implementation and on the concerted collaboration efforts of all parties – Ministry, higher education institutions, industry, the public and private sectors, and students. The change involves a separation of private and public institutions to a harmonised higher education regulatory framework. This effort may result in higher stress among academics and may result in lesser desire to stay (Vong et al, 2018). Shahin et al (2013) confirmed that there is influence of organisational climate on all sub-criteria of performance. In this regard, private institutions are encouraged to provide faculty and design curricula that are tightly linked to the required job skills, to co-fund research and to have off-take agreements for graduates. Hence, the climate dimensions in the open systems quadrant emphasizes the interaction and adaptation of the organisation to the environment.

The ten shifts under the MEB focuses on outcomes for key stakeholders in higher education systems. The first four focus on students in academic and TVET pathways, the academic community and lifelong learning. The other six focus on enablers for the higher education ecosystem covering critical components such as funding, governance, innovation, internationalization, online learning and delivery. In MEB (2015), public universities, private universities and university colleges are encouraged to position themselves and aspire towards excellence based on their strengths and focus areas. It is regarded as the rational goal of the MEB (2015).

However, in terms of the supply and demand of graduates, employers have reported that there is a mismatch. Graduates lack the requisite knowledge, skills and attitudes. In order to address this mismatch, the move from job seekers to job creators with entrepreneurial mindset is envisaged. Including this, academic and TVET pathways will be equally valued and cultivated. The government estimated that Malaysia will need approximately 500,000 highly skilled talented science, technology, engineering and mathematics (STEM) oriented workers (Selvaratnam, 2016). The primary objective of this quadrant is to ensure the pursuit and attainment of well-defined objectives (Patterson et al, 2005). Arbrecht et al (2017) applied the OCM model and found six organisational resources were positively associated with organisational engagement climate. In another action research study, Carlucci and Shiuma (2012) found that analysing organisational climate according to intellectual capital based perspective supports the planning of management initiatives aimed to improve climate and its

components. Hence, the rational goal approach should emphasize on the economic model of organisational functioning relating to productivity and goal achievement.

From previous studies conducted above on organisational climate, 21 percent applied the OCM model by Patterson et al (2005) which suggests that there is opportunity for more research. The author intends to focus on all dimensions to predict the impact of the different perspectives. It is necessary to study the perceived organisational climate from the internal and external viewpoint as variations from antecedents and outcome will advise governmental policy makers and stakeholders to be aware of how these constructs are perceived. As stated by Cafferkey and Dundon (2014), organisational climate is often an important and neglected mediating factor between HR and employee outcomes. If the strength of organisational climate is increased, further improvements and stronger outcomes can be achieved.

This study intends to carry out an investigation of the higher education climate in Industry 4.0. The fourth industry revolution is causing an impact towards the role of academics. Since innovation and creativity for industry is being fed by tertiary graduates, academics have the responsibility to make this happen. Investigating the higher education climate will discover how academics perceive the climate. The Organisational Climate Measure (OCM) is recommended as a form of measure. The current situation is the transformation of the new higher education system in Malaysia in Industry 4.0 calls for such a research. The model is recommended as the measure of higher education climate in four different perspectives.

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# A Study on Young Female Adults' Intention and Adoption of Emergency Contraceptive Pill in Rural Malaysia

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## Abstract

**Purpose:** Awareness and use of emergency contraceptive pill (ECP) is very low. Use of ECP can alleviate unintended pregnancy. The purpose of this paper is to examine the determinants of intention and adoption of ECP among young female adults in rural Malaysia.

**Findings:** Attitude and subjective norms are expected to have significant influence on intention. Susceptibility and severity influences intention, its influence is greater on information seeking as compared to adoption.

**Research limitations/implications:** Use of non – random convenient sampling restricts generalization of findings to the target population. As questionnaire will be self – completed, there could be respondent bias. Also, intention and not actual behaviour is measured.

**Practical implications:** Findings are useful in developing appropriate interventions such as in designing effective awareness programmes and identification of appropriate communication channels. Healthcare professionals and multi - disciplinary partnerships benefit from the findings.

**Originality/value:** Little prior research has been carried out using an integrated approach (Theory of Reasoned Action and Health Belief Model) in understanding the intention and adoption of a product. This approach contributes to the understanding of women`s intention.

**Keywords:** emergency contraceptive pill, intention, adoption, convenience sampling, rural Malaysia

## Introduction

Emergency Contraceptive Pill (ECP), also known as the ‘post-coital pill’ or ‘morning after pill’ is a form of contraceptive that can be used shortly after sexual intercourse to prevent unwanted pregnancy or implantation of the fertilized ovum in the uterus (Trussell, Raymond & Cleland 2016). Thomin, Keller, Darai & Chabbert (2014) in their review of literature have confirmed EC to be safe and effective and well tolerated among women who have used the method (Westley & Glasier, 2010).

Despite its benefits, the awareness of emergency contraception and its use in Malaysia is not as widespread as compared to the developed countries in the west. Although Emergency Contraceptive Pill (ECP) was first available in Malaysia in the late 60’s, it was not until 20 years later that it was registered under the Ministry of Health (MOH). The awareness level and usage continues to be low despite the need for it even to this day

Emergency contraceptive pill is one of the 13 essential products in the framework for action established by the UN Commission on Life-Saving Commodities for Women and Children (Dawson, Tran, Westley, Mangiaterra & Festia, 2014). Despite the opposition under various

circumstances, Emergency Contraceptive has contributed immensely to the reduction of unwanted pregnancies, abortions and maternal mortality (Mittal, 2014).

Emergency Contraception has been available for more than 30 years in many countries, however many women have been unaware of its existence as an option for unprotected sex and where to obtain it, thus leading to poor accessibility and lack of correct information on how to use it effectively (Papisova, 2015). This unawareness could be due to lack of promotion and sharing information of its existence and benefits. This scenario is particularly true in many developing countries including Malaysia.

In many developing countries, women continue to die from unsafe abortions, because a majority of these women has never heard of EC. For example, India recorded 20 million unsafe abortions annually and a shocking 20,000 women die because of abortion-related complications (Mittal, 2014). These unsafe abortions are attributed to low awareness (11 per cent) of ECP and its usage (0.2 per cent).

Health care providers, women's health activists, advocates and researchers all have important roles to play in truly making ECP available to the world's women (Westley & Schwarz, 2012). To facilitate this initiative, scholars suggest new strategies to raise overall awareness of ECP. This strategy includes social media, text messages or mobile Health, Internet, and the more traditional advertising and marketing approaches such as radio, television and other tools (WHO, 2018; Dawson et al., 2014). It is perceived that within health care settings, more can be done to provide women with accurate, user-friendly information about ECP.

The National Population and Family Development Board (NPFDB) under the Ministry of Women, Family and Community Development (MWFCDB) for the first time undertook a study on the awareness and use of emergency contraception in the year 2010 among 1000 women in the 15-49 age group in the urban areas of Kuala Lumpur, Selangor and Negeri Sembilan.

MWFCDB (2010) findings showed that 28.5 percent of the women surveyed have heard of emergency contraception. The study however, did not seek the responses of women living in the rural areas on the assumption that they will not have sufficient knowledge of EC due to their low education status and low exposure to relevant information. The study concluded that information on emergency contraception is not effectively shared to women in Malaysia, therefore resulting in low awareness and adoption.

Najafi, Rahman, Hanafiah, Momtez and Ahmad (2012) in their study among married Malay women staff at a public university in Malaysia have shown that 17 percent, 33 percent, and 50 percent have 'good', 'moderate' and 'low' knowledge of EC respectively. Most of the respondents however lacked knowledge about the indication for using EC, its mechanism of action, when it can be used and its side-effects. In terms of attitude, 88 percent were reported to have 'positive' attitude. Eleven percent of the women revealed that they had used EC previously, of these 35 percent was for unplanned pregnancies and 14 percent for unwanted pregnancies (Najafi et al., 2012).

Despite the low usage in many developing countries, 0.4 percent in the Philippines, 0.3 percent in Indonesia, 0.2 percent in India and 0.1 percent in Cambodia (Palermo, Bleck & Westley, 2014), Trussell et al. (2016) asserts that "emergency contraception provides women with a last chance to prevent unwanted pregnancy after unprotected sex. Women deserve that last chance, and barriers to availability should be eliminated" on the basis that women has the right to her fertility and decide the timing and spacing of births.

The World Health Organization (WHO) estimated 86 million unwanted pregnancies, 33 million unplanned births and 20 million unsafe abortions (or termination of pregnancy) annually worldwide (WHO, 2018). The corresponding figure for Malaysia is 96,000 abortions annually (RRAAM, 2010). A 2008 WHO report indicated that 38 out of every 1000 women aged 15 – 49 had an abortion in Malaysia. At the global level, UNFPA (2015) estimates 25 million unsafe abortions by 2020. From 2008 to 2011, 539 teenage girls (victims of rape and incest) were

pregnant and sheltered at welfare institutions (Social Welfare Department, 2018). From 2010 to August 2018, 911 babies were reported abandoned in the country. Currently about 100 babies are abandoned per year (Social Welfare Department, 2018).

Due to the high level of unwanted pregnancies, abortions and illegitimate births there is enormous potential to use ECP. However, the awareness and usage of ECP in Malaysia is not as expected. The majority of women still resort to abortions. Not many studies are carried out on intentions. Thus, there is a need to study and understand women's intention to seek information and adopt ECP and identify the communication channels affecting their intention. Based on the research gap and problem statement, the research question of this study is 'What are the intention to determining information seeking and adoption of ECP among rural young female adults in Malaysia?'

## **Literature Review**

### **Intention**

Intention is the likelihood that a person will engage in a specific behavior (Coleman et al.2011) and in this study intention is to seek information and adopt to satisfy a need. Ross, Kahlor, Grimley & Anderson (2007) applied Theory of Reasoned Action (TRA) and used intention to seek cancer information as the dependent variable. According to TRA, intention to act is the best predictor of one's behavior. Intention to seek information according to Fishbein & Ajzen (1975) is intention to perform a behavior. Lee & Kotler (2016) believe that in order for a person to perform a given behaviour, he or she must have formed a strong positive intention to perform the behaviour.

### **Attitude**

Attitude refers to behavioural beliefs of a product or an action and evaluation of these beliefs as favourable or unfavourable (Fishbein & Ajzen, 1975).

According to Fishbein & Ajzen (1975), the theory of Reasoned Action has been established based on numerous empirical studies that a favourable attitude towards a particular product or action results in a favourable intention. Correspondingly, it is proposed that if young female adults have formed favourable beliefs of their own on ECP and evaluation of these beliefs are favourable to them, automatically this behaviour contributes to their positive attitudes which influences their behavioural intentions. Also, this increases the likelihood that people will arrive at informed decisions to participate in health - protective behaviours (Fishbein, 2008).

Studies specifically not related to ECP have shown that attitude has a significant effect on behaviour intentions (Ng & Paladino, 2009; Coleman et al, 2011; Shaharudin et al, 2010; Sheu, 2006). Most specifically, literature review shows that attitude of the providers and users of ECP had a significant effect on accessibility and usage of ECP (Sable et al., 2006; Rogan et al., 2010; Khan et al., 2014; Dixit et al., 2015).

### **Perceived Benefits**

Perceived benefits is defined as the beliefs regarding the effectiveness of the various actions available in reducing the threat of the disease (Janz & Becker, 1984). Kim et al. (2012) state that if an individual believe that the perceived benefits from undertaking a preventive action are greater than the barrier perceptions of undertaking the action, than the person is more likely to adopt the behaviour. Mou et al. (2016) argues that they must believe the action to be effective in preventing the health outcome. Hence, consumers are likely to adopt online health information when they believe that this behaviour will either prevent a negative health condition or help them maintain or improve the existing condition. Previous studies support the effect of perceived benefits of online health service adoption (Lanseng & Andressen, 2007).

**Perceived Barriers**

Perceived barriers is defined as the assessment of potential undesirable outcomes from taking a particular health related behaviour (Brown & Lockett, 2001). These barriers include financial, performance, social, physical, psychological, time and overall risk in the e – service context (Featherman & Pavlou, 2003). These risks are the elements of the Risk Information Seeking and Processing Model (RISP) Model. The perceived barriers for this study are only restricted to performance risk, psychological risk and time risk. Performance risk is the loss incurred if the online service does not meet the consumer expectation (Shin, 2010), ie. inaccurate health information or incomprehensive information. Psychological risk refers to the possibility that an individual suffers from mental stress or loses self – esteem because of using online health services (Liao et al, 2010); ie. gives health information seeker an unwanted feeling of anxiety. Time risk refers to individuals losing too much time seeking for the information (Featherman & Pavlou, 2003). The extended valence theory (Kim et al., 2008) suggests that consumers are motivated to minimize these risks by avoiding related behaviours where risks are considered high.

**Subjective Norms**

According to Ajzen (1991), subjective norms is an important component of intentions and is described as the social pressures an individual feels to perform or not to perform the behaviour. Fishbein & Ajzen, (1975) have confirmed that the effect of attitude is greater than the effect of subjective norms on intentions. Although studies have shown that subjective norms has the significant effect on the behavioural intention (Walsh et al., 2009; Morowatisharifabad et al., 2012) these studies are non - ECP related.

**Perceived Susceptibility**

According to Janz and Becker (1984), perceived susceptibility denotes a feeling of exposure to a condition, or a risk perception of developing a condition. The HBM through numerous empirical studies have demonstrated that health behaviour depends on the degree to which an individual believe that he or she is vulnerable, such that when their vulnerability or perceived susceptibility is high, they are more likely to undertake preventive measures to avoid the health threat. Hence, in the context of this study, increased levels of susceptibility to unwanted pregnancy is likely to increase a women's intention to seek information on ECP and its adoption. Previous studies on health related behaviours support this relationship (Marlow et al., 2009). For example, Nappi et al. (2014) in their study indicated among women aged 16 to 46 from 5 European countries that the most common reasons for not using EC was not perceiving themselves to be at risk of pregnancy.

**Perceived Severity**

Janz and Becker (1984) and Witte (1992) define perceived severity as a person's beliefs about the significance or magnitude (Witte, 1992) of a health condition or seriousness of the health condition and the social consequence (Janz & Becker, 1984). The HBM predicts that if an individual considers the seriousness of the health condition as severe, they are more likely to avoid the negative health outcomes (Rosenstock, 1966). When health information seekers consider themselves likely to suffer seriously because of not acting to avoid health related threat, they are more likely to consider adopting health service and health seeking behaviour (Sun et al., 2013). Previous health behaviour studies support this relationship (Kim et al., 2012). In the context of this study, perceived severity refers to the seriousness of the outcome of an unwanted pregnancy

### Conceptual Framework

Figure 1 shows the conceptual framework of this study. The conceptual framework is build based on the Theory of Reasoned Action (TRA) and the Health Belief Model (HBM). The conceptual framework has 6 independent variables on the left and 2 dependent variables on the right. The 6 independent variables are: Attitude, Subjective norms, Perceived Benefits, Perceived Barriers, Perceived Susceptibility and Perceived Severity, while the 2 dependent variables are : intention to seek information on ECP and intention to adopt ECP. The framework reflects a cause-effect model. Attitude and Subjective norms are based on the Theory of Reasoned Action (Fishbein & Ajzen, 1975), while perceived threats (perceived susceptibility, perceived severity) and outcome expectancies (perceived benefits, perceived barriers) is based on the Health Belief Model (Rosenstock, 1966). Previous studies did not show this relationship.

#### Independent Variables

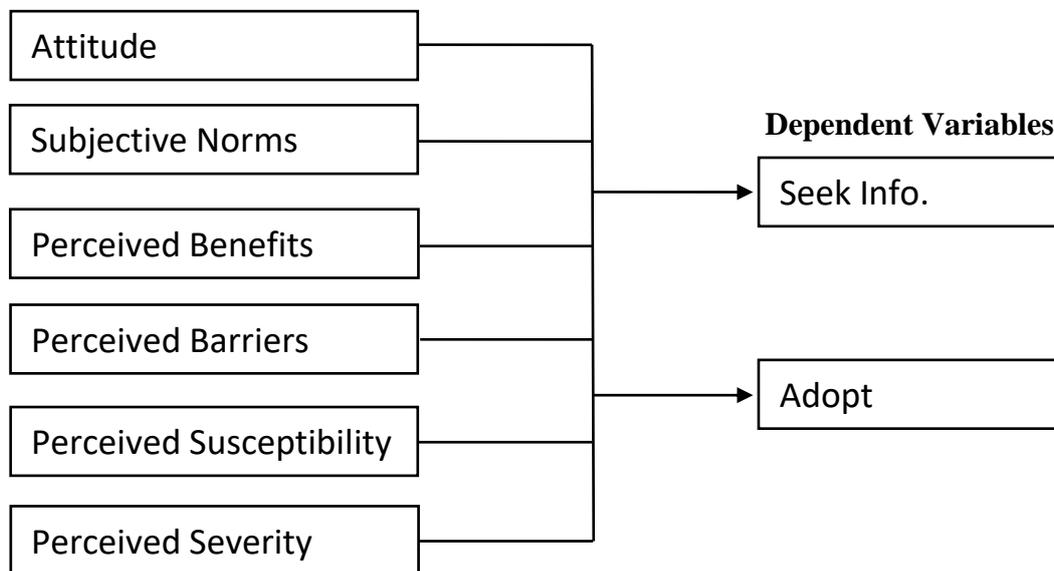


Figure 1: Conceptual Framework

#### Underpinning Theories

This study proposes an integrated Theory of Reasoned Action and Health Belief Model. Several behavioural intention models and theories have been developed over time. Many studies have used the TRA (Fishbein & Ajzen, 1975), and HBM (Rosenstock, 1966). Due to inadequacies of each of these theories on its entirety, current studies are beginning to use an integrated model. The reason being, the integrated model enhances the explanatory capacity of the empirical data and the phenomena under consideration. The 2 theories complement and supplement each other. Example, Mou et al. (2016), synthesized two behavioural intention models to propose an Integrated Model.

#### Theory of Reasoned Action (TRA)

TRA aims to explain the influence between attitudes and behaviours within human action. It has 2 constructs of attitude and subjective norms that together predicts intention of the behaviour. Attitude is influenced by behavioural beliefs and evaluation of these beliefs, while subjective norms are influenced by normative beliefs and motivation. TRA predicts how a person will behave based on their pre-existing attitudes and behavioural intentions. A person decides to indulge in a particular behaviour based on the outcomes the person expects if he or

she engages in the behaviour. The theory states that intention to perform a behaviour precedes the actual behaviour. This intention known as the behavioural intention is an outcome of believing that performing the behaviour will lead to a specific outcome. This behavioural intention is crucial to the theory because attitudes and subjective norms are the two factors that influences the intention. The TRA is shown in Figure 2.

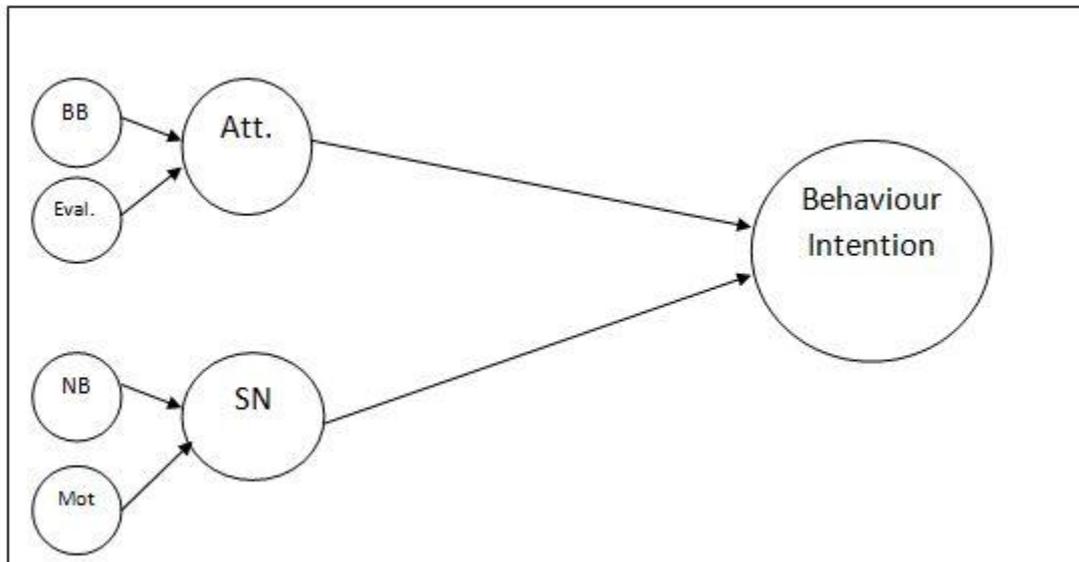


Figure 2: Theory of Reasoned Action (TRA)  
*Source: Fishbein & Ajzen, (1990)*

According to Fishbein & Ajzen (1975), intentions can be described in 2 forms, ie. intention with respect to an object and intention to perform a behaviour.

Figure 3 depicts the intentions with respect to an object. The scholars indicate that an individual relates the object to various attributes including beliefs about himself, about other people, institutions and events. This ultimately determines the individuals attitudes, intention and behaviours. If the attributes towards the object is favourable, then the individual will have positive attitudes towards the object. On the other hand, if the individual has unfavourable attributes towards the object, then the individual will have negative attitudes on the object. Figure 3 shows that a person's attitude toward an object is associated to a set of beliefs about the object but not to a particular belief. There can be a variety of behavioural intentions with respect to an object based on one's attitude. Figure 3 also shows that the performance of a particular behaviour may lead to new beliefs about the object, which may influence one's attitude.

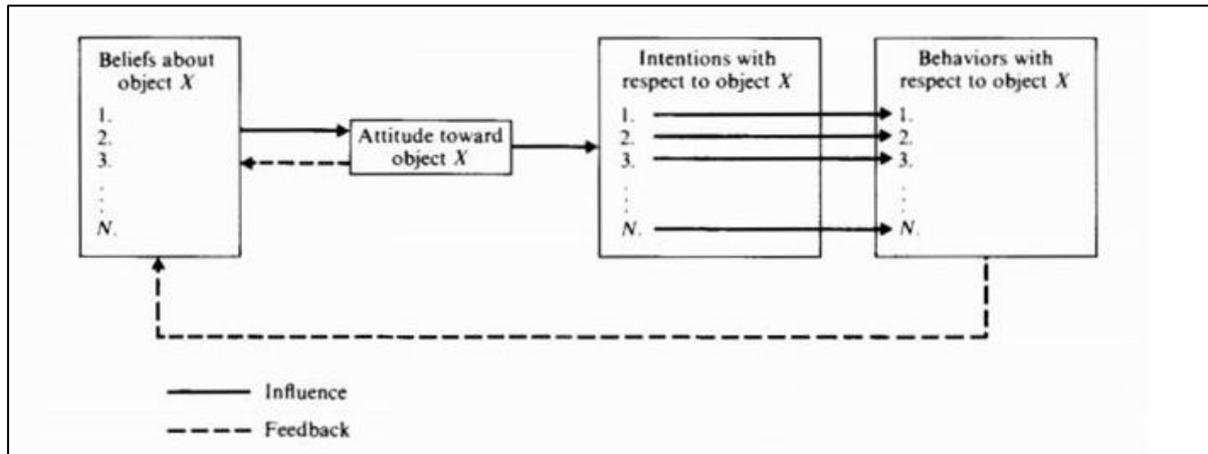


Figure 3: Schematic Presentation of Conceptual Framework relating beliefs, attitudes, intentions and behaviours with respect to a given object  
Source: Fishbein & Ajzen (1975)

Fishbein & Ajzen (1975) argues that although a person’s attitude toward an object can be used to predict one’s behaviour towards the object, however this is not usually the case because a specific behaviour is determined by one’s intention to perform the behaviour and this calls for relevant beliefs (subjective norm) with the behaviour. Figure 4 illustrates the intention to perform the behaviour and the factors influencing intention and behaviour. In the context of this study, the object is ECP, while the behavioural intention is to seek information and adopt ECP.

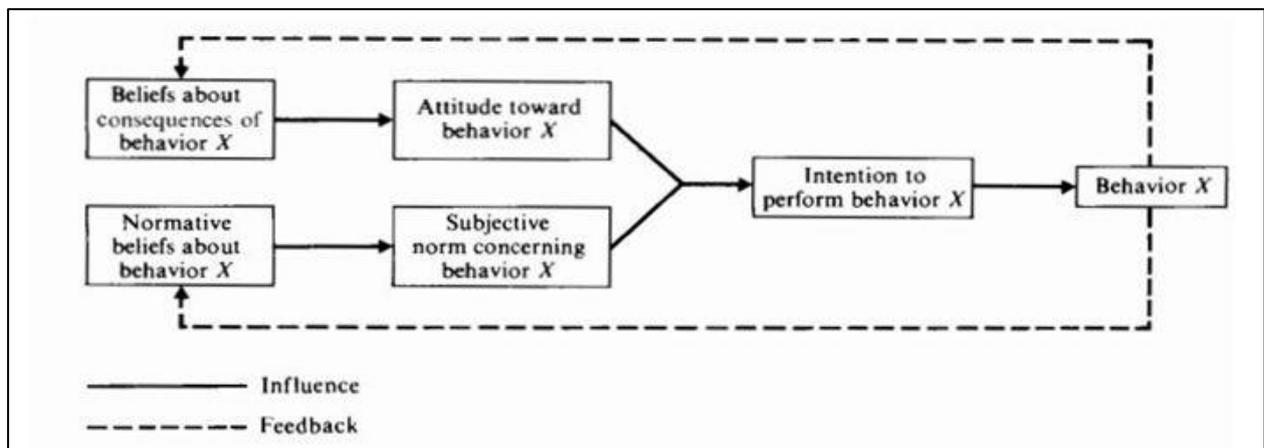


Figure 4: Schematic Presentation of Conceptual Framework for the prediction of specific intentions and behaviours  
Source: Fishbein & Ajzen (1975)

Fishbein (2008) states that although intention are strong predictors of one’s performance of a given behaviour it does not always lead to corresponding behaviour. Example, if an individual has a positive intention, that individual may not be able to undertake the intention as there may be other factors such as skills and environmental constraints that prevents one to act upon one’s intention. This calls for necessary interventions such as skills building to overcome the barriers. The TRA states that some behaviours depends on attitudes, while other behaviours may be influenced by normative beliefs. Therefore, appropriate interventions has to be based on determining the strengths of the intention to attitude, normative belief or self – efficacy. Thus, interventions need to be customized. Expectancies in terms of benefits and barriers of behaviour

features strongly in one's intention to perform the behaviour if benefits exceed the barriers as described by the HBM.

Fishbein recommends that better theories of communication effects are needed to understand factors influencing whether a given piece of information will be accepted or rejected. The weakness of the TRA is that it did not consider emotions. Also, the TRA does not take into account the factors such as skills and environmental constructs that can motivate one's intention. The shortcomings are complemented by the Health Belief model.

### Health Belief Model (HBM)

The basic idea of this model is that an individual tendency to adopt health – related behaviours is determined by perceived threats and outcome expectancies. The HBM has 5 constructs that predict intention. These constructs are perceived susceptibility, perceived severity, perceived benefits, perceived barriers and self – efficacy. The HBM is based on health beliefs. Perceived threats include the perceived susceptibility of the individual to a health related threat and perceived severity of the consequence if the threat occurs. Outcome expectancies include the perceived benefits of adopting health related behaviour relative to the perceived barriers associated with performing the behaviour. Self – efficacy to adopt the behaviour has also been added to the HBM in more recent studies (Rosenstock et al., 1998). The HBM shown in figure 5 has become one of the most comprehensive models to understand health related behaviours and why people undertake or not undertake an action to prevent or control illness (Carpenter, 2010; Harrison et al., 1992).

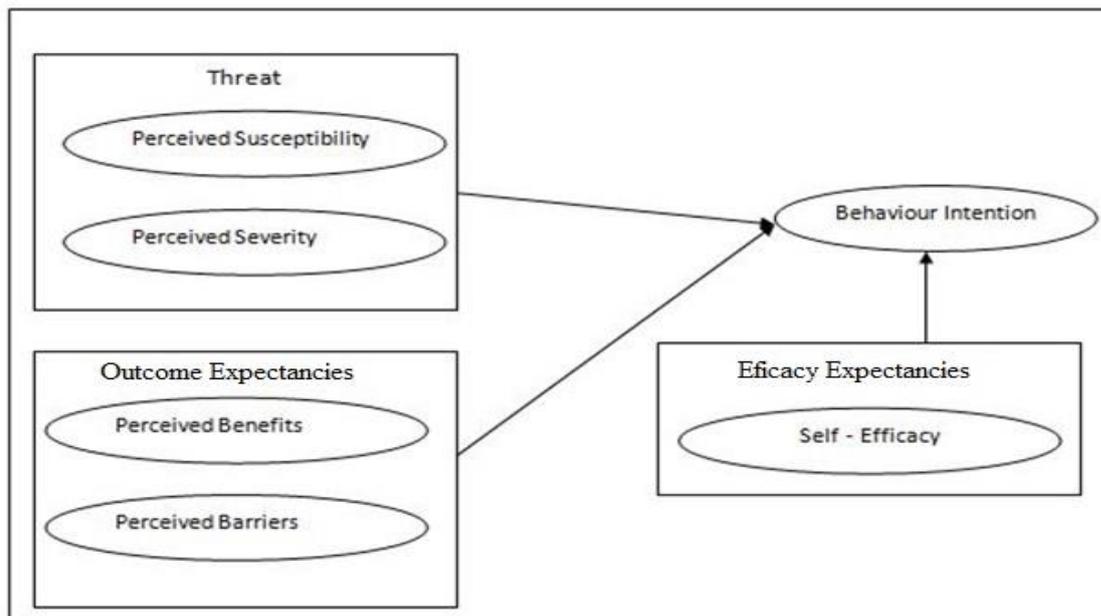


Figure 5: Health Belief Model

Source: Adapted from McKinley & Ruppel (2014)

The TRA refers to an object as well as behaviours with respect to the object, while the HBM only refers to health related behaviours. Specific to this study, under the TRA it is the beliefs and attitude toward ECP as an object and behaviours with respect to ECP which is intention to seek information. Under the HBM, it is intention to seek information on ECP only as a health related behaviour.

Several studies have been conducted to compare TRA and HBM constructs in the prediction of behavioural intention in a wide range of topics. Some examples include topics on dieting and use of seat belts. In the study on dieting, the variance explained in fasting increased when intention was added to the HBM. Studies have been conducted to examine separate applications of the 2 models in the consumption of milk, oil and salt (Morowatisharifabad, Momayyezi & Ghanein, 201). The purpose is to determine which theory better explains the outcome variable. In a study by Morowatisharifabad et al 2012, on the application of TRA and HBM, the following findings were reported to illustrate the strengths and weaknesses of both the theories. Subjective norm was not significant in explaining the variance of the outcome variable. Correlation between perceived susceptibility and perceived severity was high at 0.87, followed by correlation of perceived barriers and intention (- 0.46) and correlation of attitude and perceived benefits (0.46). Attitude and subjective norm contributed 10.1 per cent and 0.7 per cent respectively in explaining the variance of the outcome variable. HBM and TRA constructs explained 20.8 percent and 8.4 percent of the variance of the outcome variable respectively. In the HBM, perceived barriers was the strongest predictor compared to the other constructs, while in the TRA attitude had more explanatory power than subjective norms.

### **Conclusion and Implications**

The effect of the determinants of intention and adoption of ECP could be used by the suppliers particularly the pharmacies and drug stores in developing appropriate marketing strategies to induce women to seek information and use ECP. Emergency contraceptive hotlines can be set – up as well as use of mobile technology can be explored to disseminate information on the availability and proper usage of ECP. Furthermore, product training including mechanism of action can be provided to healthcare personnel to equip themselves to answer potential users' questions.

This study also enables policy makers to review existing distribution channels toward setting-up innovative and creative distribution channels to enhance purchase behaviour. Notwithstanding the above strategies, new and state of the product knowledge and information could be disseminated to the potential consumers to enable them to decide and use ECP confidently.

One of the limitations of this study is that the study will only measure intentions and not actual behaviour. The study is expected to enable classification of the respondents as 'low', 'medium'. and 'high' intenders to facilitate appropriate interventions.

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# Institutional Citizen Journalist and Their Challenges in Malaysia

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## Abstract

**Purpose:** This study looks into the problems faced by institutional citizen journalists in Malaysia and how these problems are addressed.

**Design/methodology/approach:** This study was conducted by interviewing 10 citizen journalists who have been actively contributing news in *CJ.MY* page.

**Findings:** Institutional citizen journalists in Malaysia who reports honest and transparent news in three mediums; audio, video and writing in the portal play a very important role as journalist and should continue to voice out and at the same time encourage the people out there to speak up. Despite the problems faced by these journalists, they continue to struggle solely because they feel that they are volunteering to contribute to the society and to the development of Malaysia.

**Research limitations/implications:** This study only focuses on online institutional citizen journalism in Malaysia as citizen journalism is seen to be very comfortable to grow online

**Practical implications:** This study significant credence is to provide practical information about and valuable recommendation in the development of institutional citizen journalists in Malaysia.

**Originality/value:** This study is one of the first to introduce the importance and significant of addressing the problems faced by institutional citizen journalists in Malaysia and how these problems are addressed.

**Keywords:** Institutional Citizen Journalist, Citizen Journalism, Non-institutional Citizen Journalist, *Malaysiakini*, *CJ.MY*

## Introduction

Citizen journalism is a concept that allows journalists (non-traditional) to engage in the journalism process. This includes a review of news (Bruns, 2011); while Gillmor (2004) stated that blogging activity by bloggers has opened the door to the emergence of a writing community known as citizen journalism. Citizen or people have also been accepted as a potential party to play an important role as informers (Nah & Chung, 2009). Citizen journalists are able to adapt and change in line with the powerful 21-st century development in order to create, support, and build open and democratic societies (Moeller, 2009).

In other words, citizen journalism is the action of citizens, or a group of active citizens involved in the process of collecting, reporting, analyzing and distributing news and information relevant to the establishment of democracy (Bowman & Wills, 2003; Grace & Thomas, 2010). According to Bruns (2011), citizen journalism has become the fourth estate (observer) to the role of traditional media as a watchdog of government actions in the formation of a democratic state.

Citizen journalism has gained strong presence in the Western countries and has now spread to Asian countries such as Indonesia, Singapore, and Korea. These countries portray that there are rapidly growing citizen journalism platforms, for instance, Kompas.com in Indonesia and Stomp.sg in Singapore. The world's most famous online citizen journalism page is OhmyNews that originates from Korea, attracting millions of readers every day. Giving proper definition of citizen journalism is difficult because each media organization and individual has different opinions about who is a citizen journalist as well as what is citizen journalism. Citizen journalism is a simple term, but a complex concept (Bentley, 2011). Moreover, the definition of citizen journalism has also changed over time. It is impossible to adopt a rather narrow definition or a broader or more extensive definition (Goode, 2009) because citizen journalism has a wide scope depending on the purpose of its use and it is difficult to be defined (Lewis et al., 2010). The boundaries for citizen journalism are unclear, but this term is often used to represent non-professional and non-amateur people in the news publication (Odinga, 2013).

Citizen journalism can be divided into two categories: institutional and non-institutional (Banda, 2008; Dare, 2011). Institutional citizen journalism is defined as an organizational structure that operates with minimal constraints. On the other hand, non-institutionalized citizen journalism refers to individuals who use social media sites to produce content and share with social networking partners and online platforms.

## **Literature Review**

### **Citizens' Journalism in Malaysia**

Non-institutional citizen journalism is the main factor to the development of citizen journalism in Malaysia. The importance of citizen journalism would be apparent in prominent events such as natural disasters, political scandals and tragedies due to violence, conflict and warfare (Allan & Thorsen, 2009). However, in Malaysia, the emergence of the group is not merely due to natural disaster or tragedy, but rather due to the country's political scenario. In addition, it is also due to the failure of the traditional media's role and the strict publication laws applied by the Malaysian government under the leadership of the former government of Barisan Nasional. According to another scholar, Chamil (2012), blog is a medium which has helped to revolutionized citizen journalism. In Malaysia, blogs began to attract the public in 1998; and bloggers at that time focused on writing about politics as well as current issues (Chamil, 2012). He also postulated that the issue concerning the expulsion of the former Deputy Prime Minister, Datuk Seri Anwar Ibrahim had sparked various controversies, hot stories and dissatisfaction among Malaysians. And because of this, there are blogs that allegedly revealed the secrets of Tun Dr. Mahathir Mohamad's leadership, Malaysia's Prime Minister at that time along with other politicians in the country (Chamil, 2012).

Abu Hassan (2008) also agreed with the notion, particularly pertaining to Datuk Seri Anwar Ibrahim's case that had happened on 2nd September 1998. During that time, Datuk Seri Anwar was removed from his Deputy Prime Minister's post and dragged into the court on the allegations of corruption and sodomy. His imprisonment caused the emergence of the Reformation movement in Malaysia. Furthermore, Abu Hassan (2008) also asserted that while the mainstream media ignored Datuk Seri Anwar Ibrahim, a new free-minded generation with

borderless ideology of journalism and organizational control fought for the justice of Anwar Ibrahim. Blogs became the most important medium in being an alternative source of information that supports Anwar Ibrahim's liberation movements, Malaysia's reforms, media's freedom of rights and so forth (Abu Hassan, 2008).

This situation has caused people to move to a new medium of media such as the Internet. The Internet is not controlled by any political party as it does on the country's print and broadcast media. In fact, the situation will become more apparent if a country imposes any restrictions on its freedom of media through both ownership and legal aspects. Thus, Internet is the solution to the deadlock of information and disclosure by the people (Akhbar, 2011).

Citizen journalism is evolving in tandem with the sophistication of information technology's development in Malaysia. The presence of the Internet and its widespread use in time has changed the landscape of journalism (Chamil, 2012). Hence, making the Internet as an important 'vehicle' for citizen journalists (Avilés, 2010). Without the Internet and people of the same interests in sharing experiences, online citizen journalism is unlikely to exist (Watson, 2011).

Political upheaval after the arrest of Anwar Ibrahim, the failure of the traditional media to report the news in a balanced and fair manner, the desire to provide opportunities for all Malaysian societies to speak out, the need to disseminate the right information to external public and the development of IT are among the factors that have caused institutional citizen journalism and non-institutional citizen journalism in Malaysia to develop.

### **CJ.MY and Institutional Citizen Journalist in Malaysia**

According to Maren (2015), the CEO of *CJ.MY*, institutional citizen journalism began to surface in 2007. This field was spearheaded by the *Malaysiakini* news portal. The news portal, in collaboration with the International Center for Journalist in the United States (US) has embarked on a program to train the community to become a citizen journalist among Malaysians. The program to train the community is said to have been triggered by the *Malaysiakini* CEO, Premesh Chandran (Maren, 2015).

*Malaysiakini* has also opened up opportunities for all Malaysians to contribute news materials and information on the 13th General Election that was held on May 5th, 2013. Along with only a small editorial team, this online news portal expects people from across Malaysia to volunteer and produce news and reports for readers' reading of the country's political landscape. Volunteers were requested to work from the stage of dissolution of Parliament until the polling day, followed by the counting process and announcement of the election results. The portal came about after *Malaysiakini* realized that there was potential news that was not broadcasted by the mainstream media. For the people's voice to be heard by others, *Malaysiakini* took the initiative to produce citizen journalists who can provide the information they like to Malaysians, by holding citizen journalism courses (Sharyn Lisa, 2013).

The idea behind this course is to equip participants regardless of background with journalistic skills to improve their writing and hone new skills such as the use of video for storytelling. The basic objective is to create good, responsible, ethical and unbiased citizen journalists. They are also introduced to the world of journalism; including ethics that will guide them and features that will distinguish them from traditional media journalists. The citizen journalists in Malaysia were taught the basic skills of journalism and given the freedom to send their news to *Malaysiakini*. This site does not accept news from those who did not attend the workshops organized to prevent readers in Malaysia from reading news and facts that are not true.

The publication of biased news and those that do not reflect the principles of journalism has been avoided by *Malaysiakini*. They only publish news with authentic and credible sources as well as do not touch on sensitive issues that could lead to national security threat (Maren, 2015).

This workshop that was organized by *Malaysiakini* was a theoretical and practical training designed to convert ordinary people such as teachers, lawyers, students and retirees into being a fair, ethical and bold journalist in reporting issues that concern them and the communities around them. Training workshops were conducted throughout Malaysia including Kelantan, Pulau Pinang, Perak, Kuala Lumpur, Johor, Sabah dan Sarawak. Since the introduction of this program, more than 400 journalists have been trained, of which 150 are active reporters.

These citizen journalists had succeeded in rejuvenating political parties in Malaysia, highlighting the struggles of the people around them, covering religious and ethnic issues as well as other stories that are not usually addressed by the mainstream media. There are also videos that are produced by citizen journalists and taken by other news portals online, that were spread out across cyberspace. These stories have sparked a significant response from many individuals, organizations and government themselves. From the successful trainings and workshops, [www.cj.my](http://www.cj.my) was set up as a platform for citizen journalists to channel their work. A new journalist phenomenon began to form the way news is reported, challenging red-tape situation around sensitive issues in Malaysia (Komunitikini, 2010).

Malaysian citizen journalists have organized their first conference in conjunction with the World Press Freedom Day at Annexe Central Market, Kuala Lumpur. The event was attended by over 120 citizen journalists from across Malaysia. It was the first ever conference to gather those who are proficient in journalism to provide exposure and introduce the journalistic world to the participants. At the conference, the founder of *Malaysiakini*, Premesh Chandran also launched a page titled *Komunitikini*; a page that contains all the news produced by citizen journalists from all over Malaysia (Komunitikini, 2010).

The first conference marked the first step in making this official movement in Malaysia, whereby a resolution has been agreed by the present citizen journalists to formulate the movement of citizen journalists and make Malaysian journalists a legal entity. Since then, the works to officiate the organization has continued and four divisions have been set up to manage citizen journalists across Malaysia. As part of the inauguration process, four offices for Malaysian journalists were opened in Penang, Kuala Lumpur, Johor Bahru and Kota Kinabalu. Following the success of the first conference, *Malaysiakini* took another step ahead to organize the conference annually. The second conference was organized in the Southern Region in September 2011, followed by the third conference in 2012. In June 2013, the fourth conference was held in Kota Kinabalu, Sabah to provide the citizen journalists with new inputs on journalistic world and to reward their contributions. All these conferences have succeeded in gathering citizen journalists from across the country and highlighted various issues, including the responsibilities of citizen journalists as well as the roles and ethics. This citizen journalism course has paved the way for a new journalistic revolution in Malaysia (Maren, 2015).

During the third conference, the community news page was given a new name and known as Citizen Journalism Malaysia or *CJ.MY*. Citizen journalists also had their own theme, i.e. "Community Empowered Journalists". In June 2012, *CJ.MY* stood independent without *Malaysiakini*. *Malaysiakini* and *CJ.MY* signed a Memorandum of Understanding (MoU) that carefully delineated the ongoing relationship between *Malaysiakini* and *CJ.MY*. The MoU also clearly stated that *CJ.MY* is now an independent entity, and this decision was made to enable *CJ.MY* to become a Private Limited company (Maren, 2015).

On the other hand, *CJ.MY* is supported by 380 trained journalists from across Malaysia and from all age groups, with some of them as young as 19 years old as well as retirees. Since the posting of advertisement for training as citizen journalists in the *Malaysiakini.com* website, most of the citizen journalists at *CJ.MY* comprise of those who are interested in the political world of Malaysia. Additionally, most of the citizen journalists are also those who have reached the age of 50 years old (Maren, 2015).

On average, there are five news were created daily and about 100 news were produced per month by the citizen journalists under *CJ.MY*. However, if there are any critical issues such as political situation of the country or social issues such as haze, the news production for the month will rise dramatically (Maren, 2015). Citizen journalists under *CJ.MY* are volunteers who contribute news to the page. However, not all journalists are active writers. Some write on a regular basis while some contribute news consistently every month. These people do not get paid; and they write news in their communities. They use their own experience and money to continue contributing news in *CJ.MY* (Maren, 2015).

### **Method**

This study was conducted by interviewing 10 citizen journalists who have been actively contributing news in *CJ.MY* page. They were interviewed via email and phone calls. These informants are labelled as CJ1, CJ2, CJ3, CJ4, CJ5, CJ6, CJ7, CJ8, CJ9 and CJ10. All of these citizen journalists have been interviewed from May to June 2018, by telephone. Interviews were conducted by telephone because of the time constraints that journalists do not have a chance to be interviewed for a face-to-face encounter. The results of the interview were analyzed in a qualitative manner and all data were formulated to answer the research questions.

### **Findings**

The citizen journalists interviewed faced many challenges in performing their duties although; they do it on voluntary basis. All informants have elaborated on the problems and crises they had to face whenever they try to carry out their duty.

Informant CJ1 said:

"Sometimes, it's hard to get people to comment ... Because we also feel uncomfortable asking people to do this and that... Sometimes, when we attend an event ... We are very well known as we are citizen journalists. People are more familiar with journalists from the mainstream media ..." (Interview CJ1, May 20, 2018).

Informant CJ5 also has the same view as CJ1 which is difficulties in covering at major occasions such as events involving government and official councils. CJ5 says that sometimes, they are not allowed to enter into programs because they do not have media passes.

"We are not allowed to enter although we show our company pass. Even the traditional media journalists do not recognize us ... however those who are aware about us often do not cause much trouble, and welcome us." (Interview CJ5 June 5, 2018).

For informant CJ2, things that are thought to be the main problem are legal actions by certain individuals.

"Of course, the main thing is that we are afraid that we will get summoned. We work on a voluntary basis, thus we must be careful in our writing. If we take a wrong step, we might be summoned into court. We have no money to pay the summons. So we write ... but at the same time, write safely..." (Interview CJ2, June 25, 2018).

Informant CJ3 focuses on the financial problems as a constraint in carrying out his or her duties.

"Equipment, finances... because sometimes you will not get news in the area close to you. You have to run... financially not available... tools ... not every citizen journalist has a smartphone. Everything is about money..." (Interview CJ3, June 3, 2018).

Whereas, CJ4 says that time is a major problem as citizen journalists are volunteers and only carry out writing activities as part of their leisure activities, whereby each citizen journalist has a job and they are forced to divide their time between work and being a citizen journalist.

"Because we are not full-time employees, our problem is time" (Interview CJ4, May 8, 2018).

The issue of security is also a concern for CJ8 when it is said that the political situation in Malaysia is quite scary. According to this informer, since the ruling of new government, freedom of media is good. However, covering high profile cases is still risky for citizen journalists. CJ8 also said that sometimes the negative behavior of certain political party supporters could cause the authorities to act on them and mess up the situation.

"We, citizen journalists should always be ready to take care of ourselves ... so, there won't be any mistaken identity ...or authorities would detain us as protesters. We should get ready with all the evidences including our media passes from our company as a proof that we are gathering news" (Interview CJ8, June 20, 2018).

Meanwhile, CJ6 informant stated:

"We try to give the community a marginalized news ... But we do not know what the reader really wants ... What we highlight ... What we write ... We are actually trying to fulfill the readers' wish ..." (Interview informant CJ6, June 10, 2018).

For CJ7, the biggest problem faced was not getting any info about an incident, thus he is only able to cover local news stories.

"We, as citizen journalists are unrecognizable ... getting information is the main issue ... or the information arrives later... [so] we miss it. If we are lucky, some journalists will share [information], else we will miss the important news ..." (Interview CJ7, May 15, 2018).

CJ9 feels that he has difficulty selecting the most important news and providing a title for the news that he wrote. For him, the training received for a few days was not sufficient in helping him to write. He feels that he needs more training to become a good institutional citizen journalist.

"Since our writing ... our ideas ... will impact the readers ... we have to produce a good writing ... I'm still less skilled in my writing ... I'm still learning, I need more training ..." (Interview CJ9, June 14, 2018).

Meanwhile, CJ10 regards the non-institutional citizen journalists as a big problem for them. Independent non-institutional journalists have grown in social media and disseminate any issues without restrictions. The act of non-institutional non-citizen journalists has given bad names to journalists of institutional people such as those who followed many journalistic ethics including writing using the right source and without raising any sensitive issues.

"People still do not understand the difference between institutional citizen journalists and non-institutional citizen journalists. This jeopardizes our credibility [as reporter who] reports news based on the right source ..." (Interview informer CJ10, June 15, 2018).

### **Problem Solving Suggestions**

On the question of how the institutional citizen journalists could overcome the problems they have highlighted, all the respondents have shared their suggestions and views. Pertaining to the problem on difficulty of getting comments and not being recognized by other journalists, institutional citizen journalists feel that the positive growth of IT and social media in the country

facilitates them to gather information from the community. A few respondents suggested using social media such as WhatsApp, Facebook and electronic media such as email and telephone. Institutional citizen journalists also do not have deadlines to complete a story/news, thus, they have more time to collect the materials for writing. Other than that, institutional citizen journalists are also urged to attend formal occasions and get acquainted with other traditional media journalists. This can help journalists in exchanging of ideas and collecting new information.

For the part on fear of litigation, respondents said that the citizen journalists should understand the journalism ethics outlined by the Malaysian Press Institute (MPI). Institutional citizen journalists are also advised to produce news using valid sources and to not publish any racist and insulting news. However, many respondents asserted that personal writing ethics was also vital. Some respondents suggested that citizen journalists should study the issues well before writing and must try to avoid from writing sensitive issues.

The question of financial empowerment was an issue that the respondent deems as experienced by all institutional citizen journalists; however, the respondent believed it was the responsibility of the journalists themselves to solve the issue as they write for satisfaction and on a voluntary basis. Respondents indicated that they write because they felt responsible for bringing changes to the society. There were also respondents who said that writing is a part of contribution to the Malaysian community who is paying attention to the issues marginalized by the traditional media in the country. Thus, although financial problems exist, it is not a barrier for institutional citizen journalists to pursue their interest in writing.

Even though all respondents agreed on the time constraint, each of them had their own solution. Assistance from colleagues, preparing writing schedules and spending free time were some of the solutions provided by them. Institutional citizen journalists were advised to take the opportunity during the holidays to gather as many materials needed and write during the break or at night.

Commenting on their safety which may not be assured during their work, they felt that each of them has to take care of themselves even though they have the support of many others. Among the suggestions given were always bring along the identification tag and avoid reporting on news that has been widely addressed by the traditional media. Some even suggested that they should cover areas in which they have already been identified as citizen journalists to avoid any undesirable event.

Not understanding what the reader wants was an issue thought to be less important but has been taken seriously. According to the respondents, writing is a responsibility that must be borne by themselves and as journalists, they need to be transparent, true and fair. Respondents believed that well-written and honest news will attract more readers. This is said to be unlikely to be an issue if there has been a lot of writings and experiences.

Institutional citizen journalists also felt that their credibility is at stake because of the non-institutionalized journalists in Malaysia. These people use social media and IT tools to report the incidents without any restrictions, including unwarranted news. Responding to this question, the respondent stated that this was the biggest challenge and difficult to be prevented as the problem becomes more complicated when the society cannot distinguish who is the institutional citizen journalist and who is not.

Although the respondents do not know how to deal with this problem, they perceived it could be overcome with the introduction of strict laws. The group also believed that non-institutionalized citizen journalists were not easy to be controlled, but readers should know who is reporting the truth and who is not.

### **Discussion and Conclusion**

All 10 respondents who were interviewed listed the problems they faced personally as institutional citizen journalists. The views given were from their own experiences as well as their fellow institutional citizen journalists. The most important issue that was agreed by all the respondents was that the competition from the non-institutional journalists has caused all journalists to be looked upon as non-caliber and unprofessional news reporters criticized by the Malaysian Press Institute (MPI) president, Datuk ChamilWariya (The Star, 2011).

Security was also one of the issues that were mostly discussed by all of the respondents. For them, although this problem was very important, the solution still needs a concrete suggestion, especially the recognition from the government. This recognition was not only for their safety, but also to enable them to easily get news and to move freely among other traditional journalists in any event or activity.

On the issue of fear of dealing with legal proceedings, although most of these respondents provide answers or solutions, all of them were personally afraid of legal actions. Citizen reporters were also bound by various laws used to control the media in Malaysia such as the Malaysian Communications and Multimedia Act 1998; Digital Signature Act 1997 and Post Service Act 1991; Computer Crime Act 1997; Copyright Act (amendment) 1997; Telephony Act 1997.

For them, the change of government administration from BarisanNasional to PakatanHarapan (PH) is not guaranteed for writing whatever they want to, although the PH government promises freedom of the media in Malaysia. Institutional citizen journalists are still doubtful about freedom in press and are still using journalism ethics. The group of 10 journalists also argued that it was better to not write sensitive issues including heavy political issues that can cause them to be sued in court. Thus, the respondents of this study preferred to write in the safest way.

Although the group has taken this safety measure, seeing it from another point of view shows that it is an unhealthy development as it restricts the journalists' credibility and boldness to write. These decisions can cause the institutional citizen journalists to not be bold in writing controversial issues or engage in investigative journalism. All journalists regardless of traditional and citizen journalists should write what is right, followed with valid evidences as their responsibility to the readers.

Good time management by journalists is an important criterion in this field. However, as institutional citizen journalists work and produce news writing voluntarily, writing instant news and contributing news regularly is somehow difficult. However, due to their deep interest, these groups are successful and still able to manage their commitment towards *CJ.MY*.

About financial problems that are deemed as a big problem for having to buy equipments like voice recorders, cameras, smartphones and so on, these journalists usually would have bought the equipment for personal use. This problem occurs only when they need to go far to get news. In addition to that, financial difficulties do not seem to be a big problem to all of the respondents.

Apart from the problems highlighted above, other issues include the problem of getting comments and not understanding the readers' wishes. However, it has been perceived as a crumb problem that does not affect their writing efforts for the Malaysian society.

### **Conclusion**

As a well-developed industry in Malaysia, institutional citizen journalists are also facing various challenges that could hinder their growth if these problems were not addressed. This group of journalists who reports honest and transparent news in three mediums; audio, video and writing in the portal is very important and should continue to voice out and at the same time encourage the people out there to speak up. Despite the problems faced by these

journalists, they continue to struggle solely because they feel that they are volunteering to contribute to the society and to the development of Malaysia. In this study, it is also concluded that institutional citizen journalists in Malaysian institution are serving to carry out their responsibilities as a mediator who delivers information to the public rather than seeking popularity or fame. This group has a very strong spirit to continue their journey of writing as long as their efforts are respected and accepted by netizens.

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# ICYou - A Colour Identification Application For Colour Blind

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## **Abstract**

Colour blindness “Colour Vision Deficiency (CVD)” affects approximately 1 in 12 men (8%) and 1 in 200 women in the world. Most colour-blind people are able to see things as clearly as other people, but they are unable to fully ‘see’ red, green or blue light. Therefore, the invention of the colour identification application helps many colour-blind people by solving colour problems. “ICYou” is a colour identification application to solve the current problems faced by the other colour identification applications available in the market. In this study, the problems of the current flaws faced by the colour identification application and solutions to solve these flaws were determined through the readings in literature. A design model named “ICYou” is based on the objectives of this paper. Testing was done with the colour-blind subjects to monitor and to check the quality of the “ICYou”. Feedbacks were taken as a consideration to be included in the future version of “ICYou”.

**Keywords:** Colour Identification Application, Mobile Application, Colour Blind, Colour Deficiency

## **Introduction**

This project is about the production of a colour identification mobile application, from data collection to information gathering right until the evaluation of the application itself. The project is named “ICYou – A Colour Identification Application”. The idea of “ICYou” was initiated due to real life situation of colour blinds who could not identify certain colours. People with perfect eye-sight may find identifying colours of these objects as easy as reading a word. However, there are a lot of humans on Earth that may have difficulties in calling out the name of these objects. They may see the sky as purple, hibiscuses as green, grass as orange, and ripe lemons as light-green. This is not a sorcery, but they have an imperfection of eye-sight which is known as “Colour blindness”. This eye imperfection has caused troublesome in their real life, whereby they are unable to perform some colour related tasks. For example, picking the colour for their costumes, getting a driving license, operating machines, and even being a pilot, which seem to be mundane tasks but are not for this group of people. With the growth and help

from mobile applications' technology, colour blinds can identify the colours again with the help of colour identification application. The easy "point and shoot" step for identifying colours made this job effortless and colour blinds can identify the real-life items' colour too. However, there were some problems faced by current available colour identification application in the market. Therefore, this project is a process of finding out the problems and to solve the problems with enhancement to the colour identification application.

Various choices of colour identification applications have been designed for colour blind users and non-colour blind users. However, there are some problems or insufficiency in those apps which are found throughout the testing. Those problem statements are shown below:

- a) Available applications in current market are not good in identifying the accurate colour when the object has certain shades of colour.
- b) User has to pay for colour identification application which has more colour accuracy.
- c) There is no log history for users to recall what colours they have identified earlier.

The aim of this project is to develop a free colour identification application. The following are the objectives of this project:

- a) To develop a colour identification mobile application which identifies the accurate colour based on the pixels selected from the camera feed and local image.
- b) To allow users to choose a few points of the colour shades of the object for identifying the accurate (or nearly) colour name to the real colour.
- c) To provide a screen which can suggest colour blind users on which websites or forum community that they can visit and join for finding out more information on colour blindness.
- d) To keep a log history of colours detected and identified by users, and this log history is visible to users.

## **Literature Review**

### ***Definitions of Colour Blind***

Colour blindness is the incapability of a person to differentiate more than one colours including red, blue and green, which is caused by retinal dysfunction, this makes them weaker in sensing colours than those who have perfect eye-sight [1]. In simple words, colour blind people see the world differently in terms of colours. It is a genetic related disability which is passed down from one of the parents (or both) who is a colour blindness gene carrier [2]. This means if a father or mother of a child has the gene of colour blindness, then the child might be a colour blind. In common colour blindness can be seen in three categories: Red-Green Colour blindness is a person who has deficiency in distinguishing red or green, Blue-Yellow Colour blindness is a person who has difficulties in identifying yellow or blue shades, and Complete Colour blindness is a person who perceive the world as shades of black and white [3] [4].

Colour blindness is "colour blind" to humans regardless of their race, religions, background or age. There are approximately 8% of entire male population and 0.005% of entire female population in the world whom are colour blind [1]. However, there are no exact number of colour blind people in Malaysia but according to the population estimation by US Census Bureau, as of 2004, there are about 300,000 person in Malaysia that are colour blind [2]. This can be considered as a large number of population.

### ***Colour Blind Tests***

Colour blindness is not an undetectable disease like cancers or common cold. Colour blindness is dysfunctional of eyes which can be detected using tests. There are some popular colour-blind tests which are known to and widely used by optometrists around the world to identify whether a person is colour blind or not. Those colour-blind tests are Ishihara Colour Test and D-15

Dichotomous Test [4]. These tests are available in optical shops and online.

Ishihara Colour Test, also known as Colour Perception Test is named after its founder, Dr. Shinobu Ishihara, who was a professor of University Tokyo [3]. This test is created in 1917 to determine a colour-blind person with by recognising 24 colour plates (Ishihara plates) which contains numbers, shapes, and lines [3]. People with normal vision can perceive the plates correctly, but colour-blind people may perceive the plate differently according to their types of colour blindness.

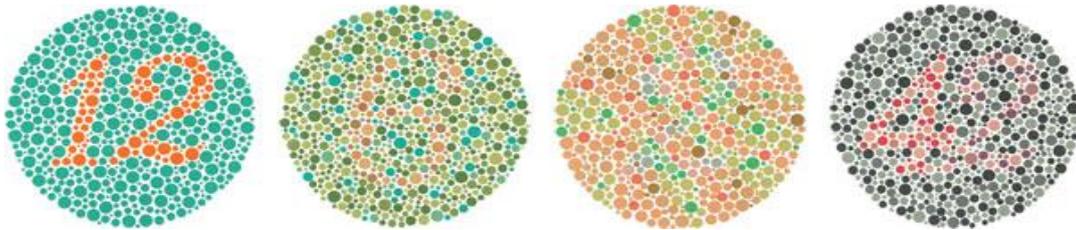


Figure 1: Ishihara Colour Test – Colour Plate Example

D-15 Dichotomous Test, also known as the Farnsworth Panel D-15 test, consists of 15 colour plates with contains 15 hues of colours [5]. This test was introduced by Mr. Dean Farnsworth in the year of 1947. In this test, a person has to arrange the 15 colour plates according to the colour hue. This test can improve the efficiency of Ishihara Colour Test in detecting colour blindness, because Ishihara Colour Test does not perform well in detecting blue-yellow colour blindness [6]. The purpose of this tests is to determine two main groups of colour blind people:

- a) severe/medium colour blindness and
- b) slight colour deficient and perfect vision [7] [8].



Figure 2: D-15 Dichotomous Test Instruments

### ***Real Life Problems Faced by Colour Blind***

In this world, every object either natural or manufactured, has colours. Sometimes, the colours of this object help humans to determine or identify the nature of the object itself. People with normal colour vision have no problem in identifying the colour of an object. However, a colour-blind person can face the trouble determining colours in real life situations. If a person has deficiency in distinguishing green colour, he or she cannot determine the ripeness of fruits, such as bananas. If a person has deficiency in distinguishing red colour, he or she may not be able to know whether the meat is cooked or raw when it comes to cooking. During presentation, a pie chart with lots of colour labelling may be useless for colour blind audiences. These are the common problems, which the colour-blind people face in real life.

Humans are known as intelligent species. Human uses visual elements such as texts, shapes, and even colours to share knowledge and experiences. According to AMES Research Centre of NASA, colours are efficient tool to be used in labelling to visualize the data [12] [13]. When dealing with charts or graph, colours are the tools to represent and differentiate the differences between data. For example, in a map which used for showing the statistics of “mean travel time to work” in United States (as shown in Figure 3), different colours are used to show the data with the colour indications at the right. However, this is very confusing for a colour-blind person to understand the map because of deficiency in identifying the colours in the map. Therefore, it is an unwise practice to use colours in labelling charts and graphs if the audience is colour blind.



Figure 3: “Mean Travel Time to Work” in United States



Figure 4: Klang Valley Integrated Transit Map

Public transportation systems are also an example of colour blind people’s trouble in daily life because many colours are used to define the subway lines and the routes of bus. In Malaysia, public transportation company such as Prasarana Malaysia Berhad, which provides the “RapidKL” services, is using colour to label the routes and lines, too. In Fig. 4, it shows how the colours are used in differentiating the lines between Light Rail Transit (LRT) Service, Commuter Rail (KTM) Service, Monorail Service, ERT Service, and MRT Service. The colours used in this map can be confusing to colour blind people too. Colour blind people might spend more time than normal people just to identify which line that a particular station is being placed at or which line should they take to reach the destination.

**Colour Identification Applications**

Mobile applications are special design software which are downloadable on smartphones [14]. Mobile applications can be said as the additional function of a smartphone. This is because in a newly bought smartphone, some default mobile applications are pre-installed to it just for general use, the smartphone owner can later find any other mobile applications on app store (application store) such as Google Play or AppStore, which meets the owner’s need. For example, a smartphone owner can download a scientific calculator into smartphone if he or she finds the pre-installed calculator’s features are not as sophisticated as the owner’s desire.

Mobile applications are made available at app store for user to download for free. However, there are a large number of mobile applications offers by software company or developers at certain price according to the usability and how sophisticated the mobile application is. This means that users have to pay for the mobile applications in order to use its features and services. The trade-off between price of the mobile application and functionality are clear to see.

Luckily, there are lots of mobile applications or software which are being made to solve the daily problems faced by colour blind people. The colour identification applications can be found in Google Play, such as “LifeDropper”, “Color Grab”, “SwatchMatic”, “Eyeteq Lite”, “ColorScanner”, and “Color Detector”. Colour blind people can use these applications to help them identify the colour which they cannot perceive accurately in life. All of the colour identification applications work with the mobile camera in order to get the image of the object. Through the camera, colour blind users can point to an object and find out the name of the colour.

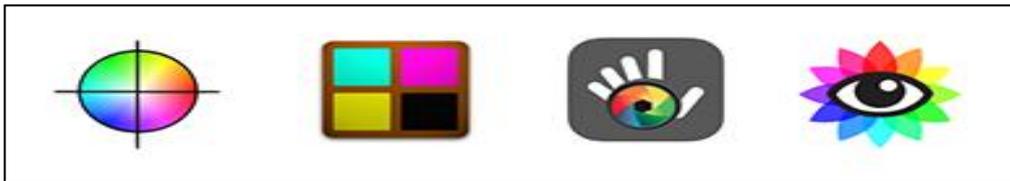


Figure 5: Logos of Colour Identification Application - “ColorScanner”, “LifeDropper”, “Color Grab”, and “Color Blind Pal”

## Testing of Colour Identification Application

### *Colour Scanner*

Color Scanner is developed by Leonel Cuevas Valeriano [15]. It helps users to identify the colour’s name by using the smartphone camera to get the image feed. The result will be given “live” because the name of the colour will be shown at top of the screen. A cross (“+”) sign is provided at the centre of the screen to allow the users to pinpoint the object in order to identify the colour. The advantage of this application is its simplicity, user can use the application directly without learning because the interface is simple, and the logos are expressive, such as, the camera button allow user to change between front-camera or rear-camera and the image button allow user to select the image stored in the smartphone. However, there is no record of history about the colour scanned by the user. Fig. 6 shows the screenshot of “Color Scanner”.



Figure 6: Screenshot of “Color Scanner”

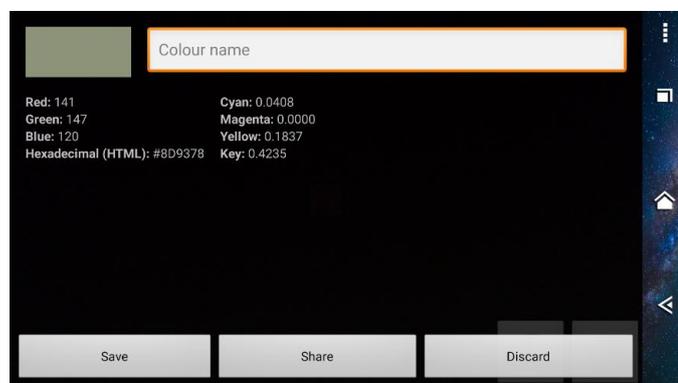


Figure 7: Screenshot of “LifeDropper”

### *Life Dropper*

Developed by Bitjutsu Softwae in 2012, “LifeDropper” is the second colour identification application used for colour identification [16]. This application allows the users to pick up the colour and identify the colours’ information in RGB, HSL, CMYK, and hexadecimal formats. It is very easy to use as the interface are expressive and simple. Flashlight button is also provided for user to get a clearer scanning experience. However, the free version of “LifeDropper” does not tells the users about the name of the colour, because this feature is only be provided in “Upgrade Version” of the application. So, users have to upgrade the application by paying certain amount of money to get the advance feature. Figure 7 shows the screenshot of “LifeDropper”.

### *Color Grab*

The third colour identification application tested is “Color Grab”, which is developed by Loomatix, a software company specialised in developing colour identification application [17]. It is available free on Google Play and its functionality is same as “Color Scanner”. Users can just simply point and get the result from the screen of smartphone. However, users have to wait for a second in order to get the indicator at top of screen turned into a tick (V) sign to get the name of the colour. Furthermore, the naming of the colour can be confusing too as shown in the example in Figure 8. The name of colour is stated as “Yellow:Green”, whereby the meaning is ambiguous to users, because it may mean “yellowish green” or “yellow and green”.

### *Colour Blind Pal*

The last colour identification application tested is “Colour Blind Pal”. It is developed by Vincent Fiorentini [18]. At the bottom of screen, there are two bars to show the hue of the colour. A circle indicator will be moved in the bars to show which hue the colour is in the bars. A cross (+) sign is place at the middle of the screen to allow user to point at the colour easily. “Freeze” button is provided for users to freeze the screen for a static image. Same as “Color Scanner”, it does not store the name of the colour scanned by the users. Figure 9 shows the screenshot of the application.

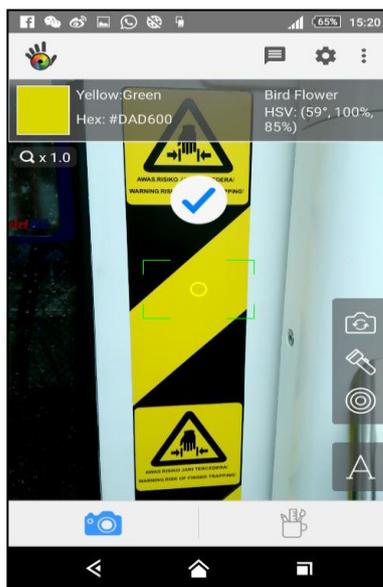


Figure 8: Screenshot of “Color Grab”

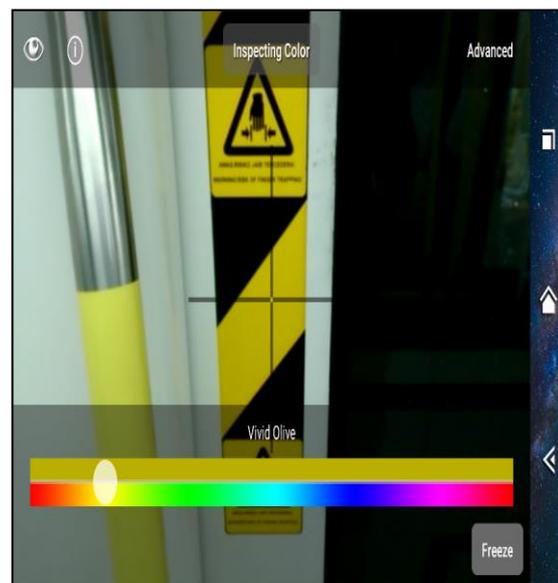


Figure 9: Screenshot of “Color Blind Pal”

## Methods

The questionnaire was prepared in two different forms: physical printed form, and electronic form which is made available on Google Form. Physical printed form was distributed among the UCSI University (Kuala Lumpur Campus) students (including South Wing and North Wing campus), while the electronic form was posted on social media and online colour blind community such as “reddit.com” for netizens to answer. The targeted sample size of the respondents of this questionnaire was hundred (100) respondents from 2 private Universities in Kuala Lumpur

## Analysis

### Demography

There was no colour blind found among the female respondents, but there were twenty-two (22) colour blind found among the male respondents. It was deduced that the colour blind was a minority among the respondents.

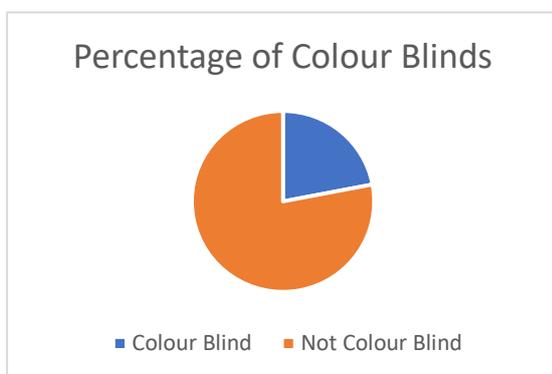


Figure 10: Colour Blinds Among the Respondents      Figure 11: Smartphone's Operating System

In the Figure 10, 63% of the respondents were using Android OS, while 37% were using iPhone OS (iOS). It is deduced that the Android OS smartphones are still a popular choice among the respondents. Surprisingly, there was no respondents using other operating system platform's smartphones. Therefore, it is a proof that this project can be developed for Android OS smartphones.

From the Figure 11, twenty-two (22) colour blind respondents, there were twenty (20) of Red Green Colour Blind, two (2) Yellow Blue Colour Blind, and none was complete colour blind. Since the Red Green Colour Blind was more than the others, so this project could focus more on adding the colour shades of the red and green. It can also be deduced that, the case of Red Green Colour Blind was more common among those twenty-two (22) colour blind respondents. While the Complete Colour Blind symptoms were very rare to be found, there were none of them were seeing black and white in real life. The pie chart shows the statistic of the colour blind according to the type of colour blinds.

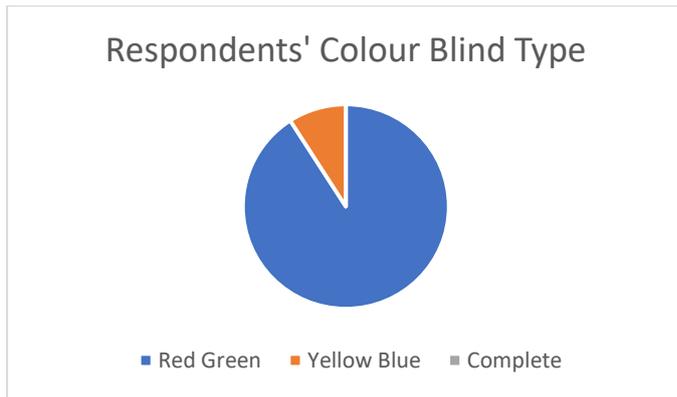


Figure 12: Types of Colour Blind Experienced by the Colour Blind Respondents

### User Experience

All the ninety-five (95) respondents at the 2 private University in Kuala Lumpur were very happy to comply with the questionnaire by testing the mobile applications.

The calculation of the percentage was done by using the formula of percentage:

$$\% = \frac{\text{Number of Choice of Each Criteria}}{20} \times 95$$

The general acceptance result for each colour identification application are taken for analysis.

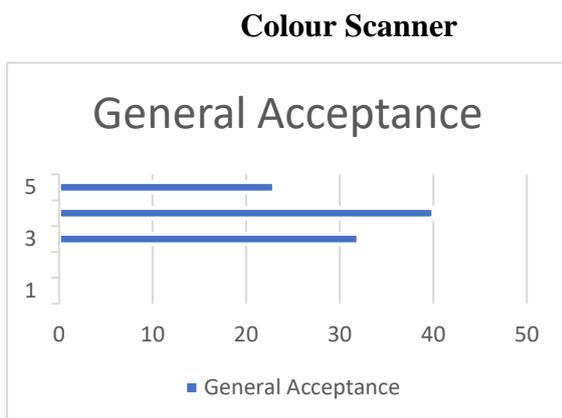


Figure 13: ColourScanner – General Acceptance

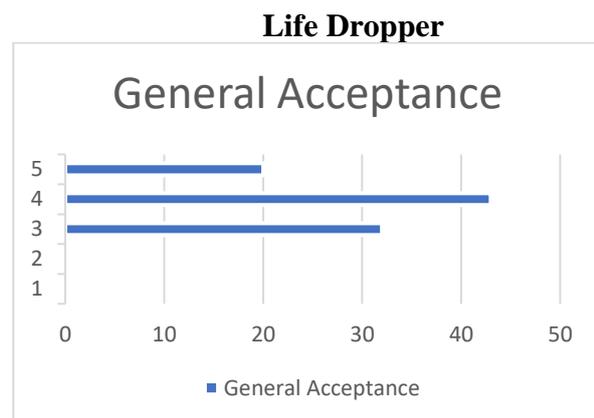


Figure 14: Life Dropper – General Acceptance

In the Figure 13, There were about 42.11% of the ninety-five (95) respondents voted “Agree” in the “General Acceptance” criteria. And there only 24.21% of the respondents who totally accept the application fully. 33% of the respondents were just fine with the colour identification.

In the Figure 14, “Life Dropper” received forty-three (43) respondents, about 45% out of ninety-five (95) respondents voted “Agree” as the answer to this criteria, while there were 21%, total of twenty (20) respondents were “Totally” accepted this colour identification application. At the same time, about 33% of the respondents were just fine with this colour identification application, which it shares the same percentage of general acceptance with the previous colour identification application, “Colour Scanner”.

**Color Grab**

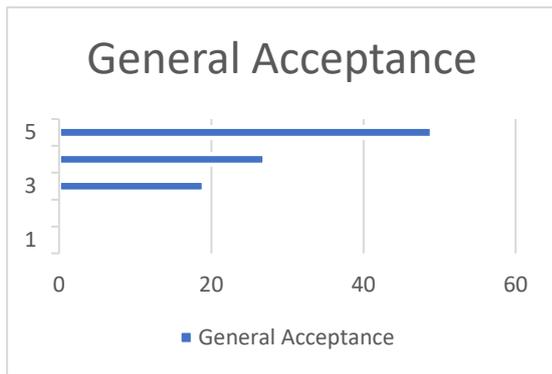


Figure 15: Color Grab – General Acceptance

**Using Labels Within Figures**

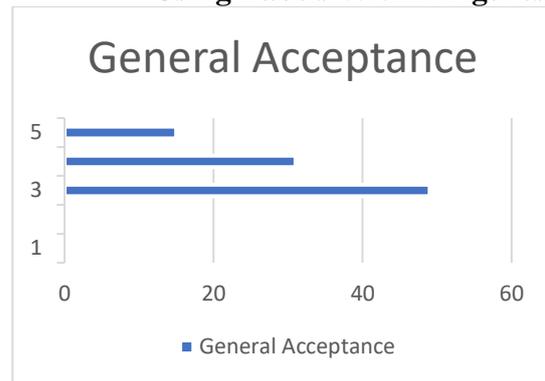


Figure 16: Color Blind Pal General Acceptance

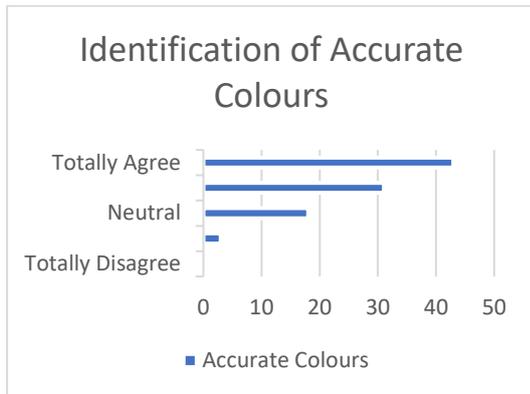
From Figure 15, the other aspect of this colour identification application, it is for sure that these questionnaire respondents would accept this application better than “ColourScanner” and “Life Dropper”. About half of the respondents, which is forty-nine (49) of them, voted “Totally Agree”; twenty-seven (27) of them voted “Agree”; while nineteen (19) respondents voted “Neutral”. At this stage so far, it is clear that “Color Grab” colour identification application has better acceptability than those previous two (2) applications. There are many respondents like this colour identification application although its clarity on the instructions was just “so-so”.

In the Figure 16, The general acceptance by all the respondents towards “Color Blind Pal” was more “Neutral” than “Agree” and “Totally Disagree”. There were half of the respondents, which was forty-nine (49) respondents, was accepting this colour identification application neutrally. There were thirty-one (31) respondents, made up to 32.63% of ninety-five (95) respondents, voted “Agree” on this criteria; and fifteen (15) respondents, made up to 15.79% of the respondents chose “Totally Agree” for “General Acceptance”. Meanwhile, there were no respondent dislikes this colour identification application as it did not receive any “Disagree” or “Totally Disagree” vote on “General Acceptance” criteria.

Half of the ninety-five (95) respondents in the Figure 17, which were forty-three (43) of them totally agree to expect to have an accurate colour identification in future colour identification application. Thirty-three (33) of the respondents voted “Agree”; eighteen (18) respondents felt “Neutral” on this function, and there were three (3) respondents did not want to see accurate colour identification in future colour identification application.

In the Figure 18, There were many respondents wanted an accurate colour names in future developed colour identification applications. Therefore, “ICYou – A Colour Identification Application” will have more accurate colours displayed.

**Accurate Colour Identification Suggestion**



**Inclusion of Colour Blind Community**

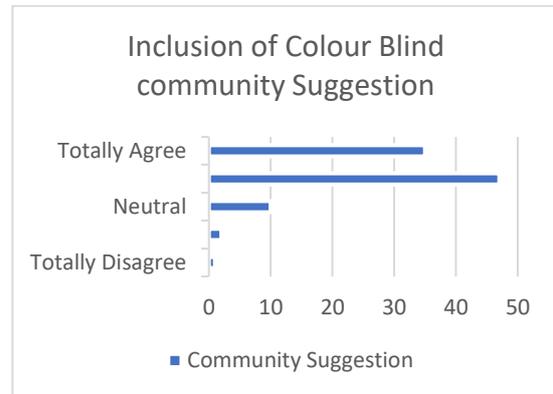


Figure 17: Identification of Accurate Colours      Figure 18: Inclusion of Colour Blind Community

Respondents were asked if it is necessary to include a colour blind community’s suggestions, such as websites, forums, or any other sources in the colour identification application. Surprisingly, there were 49.47% of the respondents would like to see these functions in the future colour identification application. This percentage consists of forty-seven (47) respondents, while there were thirty-five (35) or 36.84% of the respondent would very happy to see this function included. There were ten (10) who did not have any expectation on this function, and three (3) respondents would not like to expect this function in future colour identification applications.

In general, the function of suggesting colour blind community in the “ICYou” would most likely to be accepted by the users.

**Inclusion of Colour History**

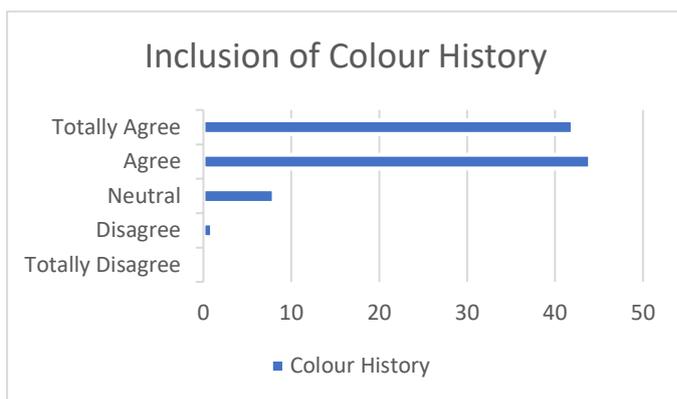


Figure 19: Inclusion of Colour History

In this question, respondents would like to have a colour history to remind them about which colours they have scanned previously. Majority of the respondents would like to check history of colours in the future, forty-four (44) and forty-two (42) out of ninety-five (95) respondents voted “Agree” and “Totally Agree” respectively. While eight (8) and one (1) respondent voted “Neutral” and “Disagree” respectively. It can be concluded that users support to include a colour history in the future development of colour identification applications. And this is a proof to support the objective of inclusion of colour history in “ICYou” too.

## Conclusion

ICYou – A Colour Identification Application” is a useful smartphone application for colour identification. It does not only provide the users to scan for colours but it also provides users to take a look at the history of what items or objects they have scanned previously. The “ICYou” has achieved to develop a colour identification mobile application which identifies the accurate colour based on the pixels selected from the camera feed and local image. It is hoped that having such a colour identification application, it can help a lot of colour blind people, including the pre-school children.

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# Review of Empirical Research on Intellectual Capital and Financial Performance in the Banking Sector

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## Abstract

Being engulfed in an innovative revolution where technological breakthroughs are transforming the banking landscape and dismantling barriers to entry, banks are investing in intellectual capital to sustain competitiveness. The purpose of this paper is to systemically investigate the contribution of intellectual capital in driving financial performance of banks. This study found that though IC positively influences financial performance, physical capital still remains pivotal in this knowledge asset business environment. This study is limited by the limitations of VAIC<sup>TM</sup> framework used to measure intellectual capital and the use of secondary data. Practitioners and policy makers can use the findings to guide them in policy formulation and manage firms' resource allocation strategy. This is amongst the first study to analyse the findings by researchers on the influence of intellectual capital on financial performance of banks especially bringing into focus Malaysian banks.

**Keywords:** Intellectual Capital, Human Capital, Structural Capital, Financial Performance

## Introduction

In today's globalised technology driven environment, businesses are conducted with knowledge based capital (OECD, 2013) referred to as the fourth factor of production which is replacing the three conventional factors of production, land, labour and capital as the critical driver of wealth creation (Matos & Vairinhos, 2017; Martín-de-Castro, 2011). This has given rise to a huge interest in intellectual capital (Hussinki, et al., 2017; Sardo & Serrasqueiro, 2017; Inkinen, 2015; Serenko & Bontis, 2013). Intellectual capital evolved from its early stage of development (Petty & Guthrie, 2000) from the late 1980's focusing on creating awareness and raising consciousness of IC (Bontis, 1998; Sveiby, 1997; Barney, 1991) to the present day, where practitioners embrace IC as a strategic tool for wealth creation (Meles, et al., 2016; Andreeva & Garanina 2016; Edvinsson, 2013).

## Literature Review

### Definition and components of intellectual capital

The definitions of intellectual capital in the intellectual capital literature are from various disciplines -business, accounting and management and by researchers and institutions. International institutions that invest in resources in intellectual capital research (Organization for Economic Cooperation and Development, OECD, 1999, 2006 and World Bank, 1998/99)

and researchers (Cuozzo et al., 2017; Inkinen 2015; Dumay 2014; Feng & Lev 2001; Pulic 1998, 2000, 2003, 2008; Pulic & Borneman 1997; Brooking 1996; Barney 1991, 2007; Itami & Roehl 1987) do converge on their definitions and components of intellectual capital. Intellectual capital are intangible assets that can be converted to generate wealth and sustainable competitive edge for corporations.

Researchers (Sveiby, 2002; Roos, Bainbridge, & Jacobsen, 2001; Stewart & Ruckdeschel, 1998; Edvinson, 1997) decomposed intellectual capital into three dimensions- human capital, structural capital and relational capital whereas Pulic and Kolakovic(2003), Pulic,(1998, 2000) , Pulic and Bornemann ( 1997) and OECD (1999, 2006) decomposed intellectual capital into only two major components - human capital and structural capital. For the purpose of this study, the OECD (1999, 2006) and Pulic (1998, 2000) definition of intellectual capital comprising human and structural capital is adopted since many researchers also employed this definition (Poh et al.,2018; Meles et al., 2016; Ousama & Fatima 2015; Shamsudin & Yian 2013).

Human capital is so called because people cannot be separated from their skills, knowledge, experiences and values (Becker 1964) whereas structural capital is what is left behind when employees leave the company (Stewart 1997). Human capital can be limited to individual level-personal skills, technical competency and also at organizational level-teamwork. Structural capital includes all kind of 'knowledge deposits'; organizational structures, procedures, manuals, systems, copyrights, patents and databases (OECD, 1999).

### **Research objective and research questions**

The focus of this paper is to examine if intellectual capital systematically has a positive influence on financial performance by reviewing researches conducted on the relationship between intellectual capital and financial performance of banks. The resource based theory (Wernefelt, 1984) is premised on the presumption that the bundling of the internal resources of a company is the key to superior financial performance. Financial performance in this research refers to quantitative indicators which includes return on assets, return on equity, asset turnover, and net interest margin. Based on the resource based theory, it is postulated that intellectual, human, structural and physical capital positively influenced financial performance. The research questions are:

Research question 1: Does Physical Capital positively influence corporate performance?

Research Question 2: Does Intellectual Capital positively influence corporate performance?

Research question 3: Does Human Capital positively influence corporate performance?

Research question 4: Does Structural Capital positively influence corporate performance?

The definition and computation of intellectual capital, human capital, structural capital and physical capital are derived from Pulic (2008, p.19-20; 1998 p.9-12) VAIC model where ICE is intellectual capital efficiency, HCE is human capital efficiency, SCE is structural capital efficiency, CEE is capital employed efficiency or physical capital efficiency. VA is value added, CA is capital employed, HC is human capital and SC is structural capital.

$$ICE = HCE + SCE$$

$$HCE = VA/HC$$

$$SCE = SC/VA$$

$$CEE = VA/ CA$$

### **Research Methodology**

Structured literature review (SLR) employed by researchers (Buenechea-Elberdin, 2017; Massaro et al., 2016; Cuozzo 2016; Inkinen 2015) is used in this research.

Firstly, the literature selection process is used to identify the relevant papers for review. A summary of the characteristics of the selected papers are tabulated followed by presentation of the findings.

The inclusion criteria for the literature selection process are;

- Present in the following data databases; EBSCO, Web Of Science and Google Scholar in August 2018
- Published between January 2012 to August 2018
- Peer reviewed, in English and in academic journals
- Social Science and Humanities domain
- Empirical approach using Pulic VAIC model as the measurement of the value creation of intellectual capital (human and structural capital) and physical capital
- Quantitative financial performance metrics - ROA, ROE, Asset turnover, revenue, Tobin Q )

The literature selection process illustrated in Figure 1 below, is adapted from several researchers (Eugénia et al., 2018; Massaro et al., 2016; Inkinen 2015; Guthrie 2012) and modified for this study.

### **The literature selection process**

First Stage – The initial search for the identified literature was in 2018. UM-EBSCO discovery service database, Web of Science and Google Scholar are used. The term “intellectual capital” is used and the search is limited to peer reviewed, academic journals and conference papers in English. This yielded 413,171 potential relevant articles.

Second Stage - articles excluded by refining subject to intellectual capital, knowledge assets and intangible assets as most of the articles filtered out in the First Stage do not meet the targeted literature sought. The number of potentially relevant articles is reduced to 7,338.

Third Stage – articles excluded further by limiting the publication years from January 2012 to August 2018. All the articles in the Journal of Intellectual Capital from January 2012 to August 2018 are reviewed. The earlier years are considered less relevant with the rapid changing structure of intellectual capital arising from technological developments. This further reduced the number of potential relevant articles to 1,289.

Fourth Stage –articles are excluded by refining the title and reviewing the abstract that contains VAIC, intellectual capital, human capital, structural capital and physical capital. Produced 320 potential relevant articles.

Fifth Stage - the articles are excluded by reviewing the full text. Produced 26 potential relevant articles.

Sixth Stage - Snowballing from the reference lists. Produced 29 relevant articles.

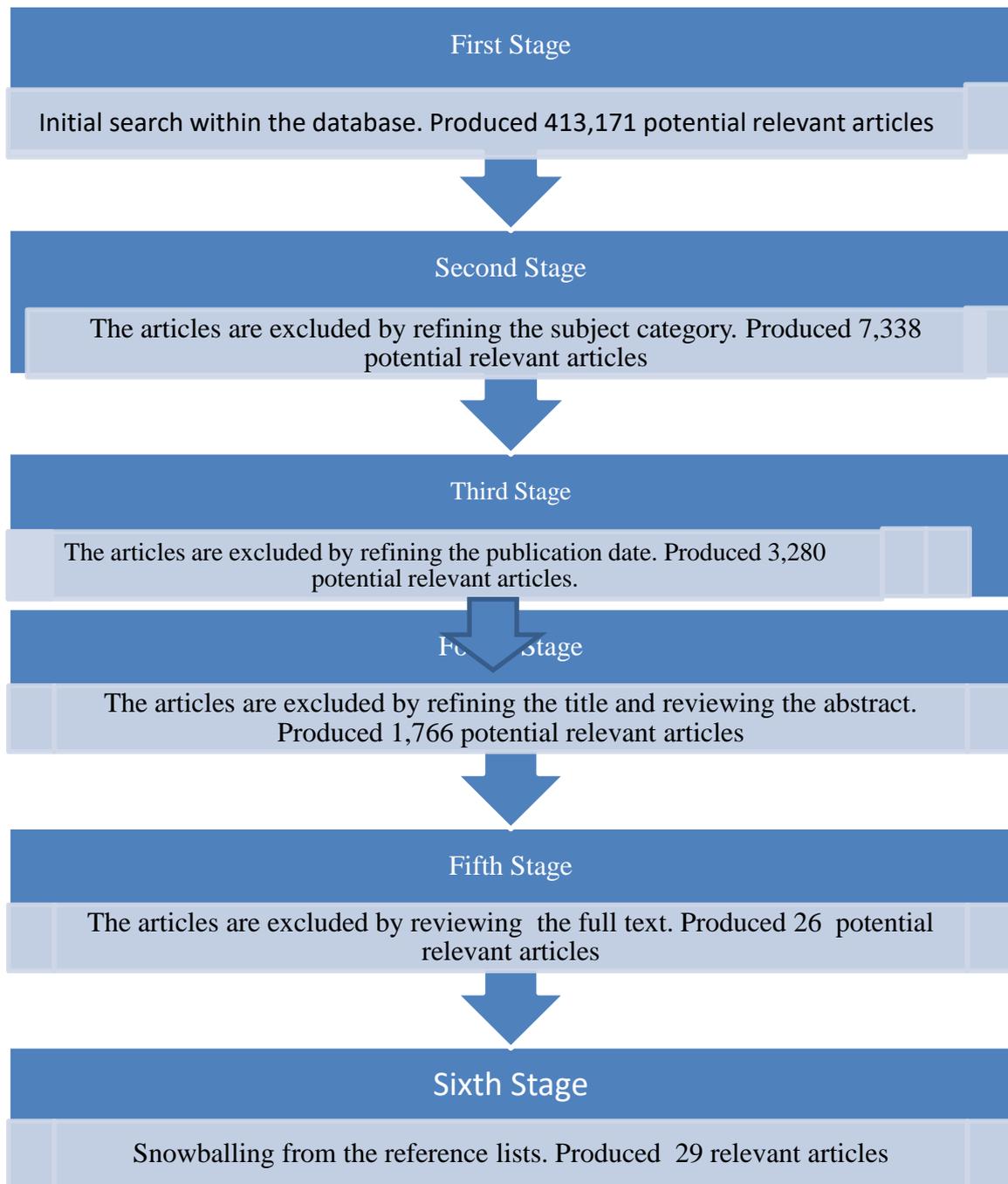


Figure 1: The literature selection process

### Findings

The findings are summarised and tabulated in Table 1 below. The number of citations as at August 2018 is used (Buenechea-Elberdin, 2017). The number of citations does not necessarily suggest the quality of the articles. Impact factor is not used because the factor is calculated based on citations and articles published in the two previous years of which 30% of the articles in this research do not have their impact factor published as yet. The impact factor for 2017 published in 2018 used data for 2015 and 2016. Besides, there are critiques to the usefulness of impact factor as an indication of the quality of the articles. Self-citation to manipulate the number of citations, the high citation of the journal need not necessarily reflect the high citation of the article, the language it is being published and accessibility of the journals(open access) are amongst some of the factors limiting the use of impact factor (Falagas & Alexiou, 2008;

Bensman 2007; Garfield et al., 2005). The number of citations as at August 2018 is used instead. The number of citations does not necessarily suggest the quality of the articles.

### **General Findings**

Researches on South East Asian banks account for 10 of the total number of articles selected for review whereas South Asia accounts for 8 and the remaining 11 are from USA, Europe, Gulf countries and Africa.

The number of citations are higher for articles published between 2012 and 2014. There is no correlation between country and number of citations. Findings that suggest intellectual capital does not positively influenced financial performance recorded relatively higher citation counts (Mondal et al., 2012; Joshi et al., 2013; Al – Musali et al., 2014; Ozkan et al., 2014).

This literature review seeks to provide answers to the research questions on the role of, physical capital, human capital and structural capital in influencing financial performance of financial institutions.

RQ 1: Does Physical Capital positively influence corporate performance?

RQ 2: Does Intellectual Capital positively influence corporate performance?

72.4% of the articles reviewed shows intellectual capital positively influences financial performance compared to 89.6% for physical capital. This suggests; though intellectual capital and physical capital positively influence financial performance, physical capital has a higher incidence of positively influencing financial performance than intellectual capital irrespective of country, publication year and performance metrics used.

RQ 3: Does Human Capital positively influence corporate performance?

RQ 4: Does Structural Capital positively influence corporate performance?

Human capital and structural capital positively influenced corporate performance. 79.3% of the articles reviewed indicates human capital compared to 51.7% of structural capital, positively influenced financial performance. Empirical evidence suggests that human capital has a higher incidence of positively influencing financial performance than structural capital.

Other findings

There is a trend showing association between structural capital and physical capital. In 86.7% of cases when structural capital positively influences financial performance, physical capital also positively influences financial performance. There is no discerning trend to indicate human capital and structural capital positively influences financial performance by country, publication year or performance metrics used.

### **Implications and Recommendations**

This literature review provides empirical evidence on the influence of intellectual capital and its subcomponents (human and structural capital) and physical capital on financial performance of banks. The findings suggest intellectual capital and physical capital positively influence financial performance with physical capital exhibiting higher incidences than intellectual capital. Though operating in a in a knowledge intensive industry, the resource based theory (Wernefelt, 1984; Penrose 1959) postulates that the key to superior financial returns lies in the ability to reap the synergies from the bundling of the internal resources. This suggests to policy makers and captains of financial institutions to invest and manage intellectual capital and physical capital as a single resource to optimize financial performance.

Human capital registers higher incidence of positively influencing financial performance than structural capital, suggesting investments and management of human capital is pivotal for financial institutions to optimize financial performance. Despite financial institutions being engulfed in technological revolution to replace human resources with technology to sustain competitiveness, policy makers and management of financial institutions should not lose sight

of the inter dependency of human and structural capital in influencing financial performance. “New technological advances are clearly of little value to countries that have very few skilled workers who know how to use them” (Becker, 1964).

### **Contributions**

This literature review contributes to the literature on intellectual capital research by underlining the synergistic effects of intellectual capital and physical capital on financial performance. It also affirms the applicability of the resource based theory. Policy makers and management of banks can avail themselves to the empirical evidence adduced from the findings as a benchmark to evaluate, justify and formulate policies and strategies on resource allocation to sustain competitiveness.

### **Limitations and suggestions for future research**

The limitations of Pulic VAIC model as the measurement of the value creation of intellectual capital and physical capital (Stahle, 2011) and the smallness of the number of articles of 29 being reviewed are the major drawbacks. This research only draws upon studies using secondary data and quantitative financial performance metrics of financial institutions. Future researchers could expand on the breadth of this study by including researches using primary data, other knowledge intensive industries, and other measurement models of intellectual capital and non- quantitative and or non- financial performance indicators.

Table 1: Summary of findings of the articles reviewed

Author and Year	Country	HCE	SCE	ICE	CEE	Performance Metrics	Citation
Malina Hanum Mohd Kamal, Rosfatihah Che Mat, Najihah Abdul Rahim, Norhusniyati Husin, Irwan Ismail (2012) Intellectual Capital and Firm Performance of Commercial Banks in Malaysia	Malaysia	X		X	X	ROA, ROE	20
Mondal, A., & Ghosh, S. K. (2012). Intellectual capital and financial performance of Indian banks	India	X			X	ROA, ROE, ATO	116
Kamal, M. H. M., Mat, R. C., Rahim, N. A., Husin, N., & Ismail, I. (2012). Intellectual capital and firm performance of commercial banks in Malaysia.	Malaysia	X		X	X	ROA, ROE	20
Kehelwalatenna, Sampath and Premaratne, Gamini, (2012) An Empirical Investigation on Intellectual Capital Performance: Evidence from Banking Sector	US	X	X	X	X	ATO,ROA, ROE	6
Rehman, W. U., Rehman, H. U., Usman, M., & Asghar, N. (2012). A link of intellectual capital performance with corporate performance: Comparative study from banking sector in Pakistan	Pakistan	X	X	X	X	ROA,ROE,	29
Gigante, G. (2013). Intellectual capital and bank performance in Europe.	Europe	X	X		X	ROA,ROE	15
Joshi, M., Cahill, D., Sidhu, J., & Kansal, M. (2013). Intellectual capital and financial performance: an evaluation of the Australian financial sector.	Australia				X	ROA	119

Author /Year/Title	Country	HCE	SCE	ICE	CEE	Performance Metrics	Citation
Shaban, M., & Kavida, V. (2013). Intellectual Capital, Financial Performance and Market Valuation:	India		X	X	X	ROA	4
Shamsudin, L. Y., RYM. (2013). Exploring the relationship between intellectual capital and performance of commercial banks in Malaysia.	Malaysia		X	X	X	ROA, ROE	5
Al-Musali, M. A. K., & Ismail, K. N. I. K. (2014). Intellectual capital and its effect on financial performance of banks: Evidence from Saudi Arabia	Saudi Arabia	X			X	ROA, ROE	39
Pasaribu, Rowland Bismark (2014) The Influence of Intellectual Capital and Bank Performance to Profitability of Banking	Indonesia	X		X	X	ROA	
Salehi, M., Moheb Seraj, A. H., & Mohammadi, R. (2014). The Effect of Intellectual Capital on the Profitability Ratios in the Banking Industry: Evidence from Iran.	Iran	X	X	X	X	ROA,ROE	4
Eddy Winarso & Joung Hyun Park (2015) The Influence of Intellectual Capital Component on the Company's Finance Performance: Case on Banking Sector Listed in Indonesia Stock Exchange	Indonesia	X	X	X		ROA	1
Janeth, N. I. (2015). Impact of Intellectual Capital on Financial Performance of Banks in Tanzania	Tanzania	X		X	X	ROA	3

Author /Year/Title	Country	HCE	SCE	ICE	CEE	Performance Metrics	Citation
Ousama, A., & Fatima, A. (2015). Intellectual capital and financial performance of Islamic banks.	Malaysia	X	X	X	X	ROA,ROE	4
Deepa Venugopal & M. V. Subha, (2015.) "Impact of Intellectual Capital on Corporate Performance	India				X	ROA, ROE	16
Meles, A., Porzio, C., Sampagnaro, G., & Verdoliva, V. (2016). The impact of the intellectual capital efficiency on commercial banks performance: Evidence from the US.	USA	X	X	X		ROA, ROE, ATO	7
Rahmat Heru Setianto & Raditya Sukmana (2016) Intellectual Capital and Islamic Banks' Performance; Evidence from Indonesia and Malaysia	Malaysia and Indonesia	X		X	X	ROA, ROE	
Tarit Kanti (2016) Impact of Intellectual Capital on the financial performance of Indian Public Sector Bank: With a Special reference of Bank of Baroda.	India	X	X	X	X	Growth rate of revenue	
Aziz, M. R. A., & Hashim, A. A. M. (2017). Intellectual Capital (IC) Determinants: Impact on Productivity of Islamic Banks	Malaysia	X	X	X	X	ATO	
Iqbal, J., & Zaib, J. (2017). Corporate Governance, Intellectual Capital and Financial Performance of Banks listed in Pakistan Stock Exchange.	Pakistan		X		X	ROA. ROE.Tobin q	
Nawaz, T., & Haniffa, R. (2017). Determinants of financial performance of Islamic banks: an intellectual capital perspective.	Multi countries	X		X	X	ROA	12

Author and Year	Country	HCE	SCE	ICE	CEE	Performance Metrics	Citation
Ozkan, N., Cavan, S., & Kayacan, M. (2017). Intellectual capital and financial performance: A study of the Turkish Banking Sector.	Turkey	X			X	ROA	28
Virender Singh Thakur (2017) Intellectual Capital: Its Effect on Financial Performance of Indian Public and Private Sector Banks	India	X	X	X	X	ROA,ROE	
Khairiyansyah, K., & Vehtasvili, V. (2018). Relationship between Intellectual Capital with Profitability and Productivity in Indonesian Banking Industry	Indonesia	X	X	X	X	ROA	
Muhammad Tahir, Syed Quaid Ali Shah† , Muhammad Mumtaz Khan‡ and Muhammad Asim Afridi§(2018) Intellectual Capital and Financial Performance of Banks in Pakistan	Pakistan	X		X		ROA	
Poh, L. T., Kilicman, A., & Ibrahim, S. N. I. (2018). On intellectual capital and financial performances of banks in Malaysia.	Malaysia	X	X	X	X	ROA, ROE,	
Siniša Radić (2018) The impact of intellectual capital on the profitability of commercial banks in Serbia	Serbia	X	X	X	X	ROA, ROE	
Tran, D. B., & Vo, D. H. (2018). Should bankers be concerned with Intellectual capital? A study of the Thai banking sector	Thailand			X	X	ROA	

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# Flexible Working Arrangements in Malaysia; a Study of Employee's Performance on White Collar Employees

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## **Abstract**

Many studies have been conducted to identify on the factors that can affect and boost their productivity through enhanced performance by the employees in organizations. Employee performance is influenced by various factors at work place and flexible working arrangements has been noted as one of the most widely used strategy.

**Purpose:** The ultimate purpose of this study is to identify how flexible working arrangements can influence the employees' performance in organizations in Malaysia focusing on groups of employees of white collar age 24 to 60 years old.

**Design:** The research design chosen for this study is quantitative in nature. The quantitative research is that which tries to find answer to a question through analysis of quantitative data, i.e. the data shown in figures and numbers (Hashim, 2013; Taylor, 1998). Gay, Mills and Airasian (2009) explained that the strength of quantitative research is the opportunities that it provides researches to interact and gather data directly from their research participants to understand a phenomenon from their viewpoints. Quantitative research clearly and accurately specify both the dependent and independent variable. The quantitative methodology was used to evaluate and analyse the correlation between the independent variable (factors) and dependent variable (employee performance). This study is designated to analyse group of individuals as the respondents of the primary data that will be collected.

**Findings:** Flexible working arrangement have positively attributed to the improvement in employees' performance which are elaborated in detail in this research paper.

**Research limitations/implications:** Research methodology serves as backbone of a research study (Saunders et.al. 2009). It allows generalisations of the results by measuring the views and responses of the sample population which are likely to have limitations which are beyond our control (Simon, 2011). By saying that, improper illustration of the target population would possibly hinder the researcher for achieving its desired aims and objectives. Despite of applying acceptable sampling set up illustration of the topics depends on the likelihood distribution of ascertained data. This could led to miscalculation of likelihood distribution and cause falsity in proposition. Second possible limitation of this research is the flexible working arrangements might not be suitable for certain type of jobs namely for customer fronting employees. For example, in the banking industry the processes are still manual resulting in customers to walk-in into branches to perform banking transactions. Hence, banks are to comply with the standard banking hours set by the regulators. This limitation are also applicable to employees facing customers at government agencies. Third limitation will be when employees are aware that FWAs are available to other employees but not to themselves, they may feel unfairly treated. As a result, employees experience dissatisfaction and are motivated to alleviate that condition by reducing the inequality. According to equity theory (Adam, 1965), employees measure

equity by comparing the ratio of their inputs to outputs with the ratio of the perceived inputs and outcomes of others

**Practical implications:** Flexible working arrangement can add value to the current strategies taken by employers to motivate and increase the productivity. Employers offering flexible working arrangements also benefits to retain their valuable employees, it has seen that it increases the employee's morale, loyalty and save employer's time and hiring cost.

**Originality/value:** The adoption of flexible working arrangements amongst employers in Malaysia are found to be lesser compared to other developed countries in the world. This could be due to less of research and consideration by employers on the effectiveness of the flexible working arrangement.

**Keywords:** Flexible Working Arrangements (FWA); Employees' Performance, White Collars, Work-Life Balance, Absenteeism, Job Satisfaction, Motivation; Commitment

### **Introduction**

Flexible working arrangements (FWAs) are defined as any policies, practices, formal or informal, which permit people to vary when and where work is carried out' (Maxwell, Rankine, Bell & MacVicar 2006,p.138). Gardiner and Tomlinson (2009) describe FWAs as a broad concept that includes any working arrangements that digress from standard employment involving fixed daily hours on the employer's premises. The flexibility of work time refers to programs, policies and practices initiated by employers that allow workers at least some freedom of choice in adjusting the length and/or scheduling of their working time to meet their preference (Golden, 1998; Henly & Lambert, 2010; Brown & McNamara, 2011). FWA allow flexibility in the timing of work and the place in which the work is conducted (Shockley & Allen, 2007). Gainey and Clenney (2006) found that telecommuting which involves working from home using technology has been instrumental in helping employees meet the demands on their time. Other popular types of FWA are part-time work and job sharing (Secret, 2000)

Employee performance demonstrates the effectiveness of employee's specific actions that contribute to attain organizational goals. It is characterized as the best approach to perform the job tasks according to the prescribed job description. Successful of a business is based on the employees' performance. Performance is associated with quantity of output, quality of output, timeliness of output, presence/attendance on the job, efficiency of the work completed and effectiveness of work completed (Mathis & Jackson, 2009). Aguinis (2009) described that the definition of performance does not include the results of an employee's behaviour but only the behaviour themselves. One of the elements that is assessable is the employees' performance through the level of their productivity. The main purpose of every organization is to improve its performance but it can never be possible without the efficient of performance of employees'. Several researches have been introducing various methods to evaluate organisational performance (Wong & Wong, 2007: Prajogo 2007). According to Hertz and Donovan (2000), "Better significance is the opportunity that the relationship between personality characteristics and specific work environments may influence performance". Therefore, the performance management system came into effect as a management reform to address and redress concerns, organizations had about performance (Sharif, 2002).

Human resources are important for organisational excellence and they act as a main factor for achieving anticipated organisational objectives (Haghighi, 2005). Enhancing the creative performance of employees has been recommended as dire for remaining competitive in a dynamic environment and for enhancing the overall innovations of an organizations (Janssen, O. and NW. Van Yperen, 2004).

White collars is known for earning high average salaries and not performing manual labour at their jobs. White collars workers historically have been the "shirt and tie" set, defined by their

office jobs and not “getting their hands dirty”. This class of workers stands in contrast to blue collar workers, who traditionally wore blue shirts and worked in plants, mills and factories. Jobs that requires white collars are actually low paying and high in stress. In many traditional white collars positions, employees were required to be in office to take orders from the bosses. Even though the workplace hours have become more flexible, the latter method is still commonly used.

Flexible working arrangement are the reciprocally advantageous accords between employee and employer to enhance employee productivity and higher profitability of the organization. Thus, many organisations encourage and support the FWAs. Employer must know that flexibility in workplace also bring some important benefits. Higher satisfaction with work and employer, better employee performance, greater organizational commitment, and lower employee turnover and absenteeism are all outcomes of FWAs that at the end lead to increasing company’s productivity and profitability.

There are few types of FWAs namely flexitime, telecommuting, shift working, reduced hours, non-standard working hours, sabbatical leave, part-time working and career breaks. FWAs generally refers to a practice in organizations where employees are able to choose when they work and where they work from so long as they fulfil their working obligations in doing so (Grzywacz, Carlson & Shulkin, 2008). Flexitime has been described by human resource manager today as one of the earliest essential introductions of employees.

It has its origins in Germany with the aerospace company Messerschmitt-Bolkow-Blolm. The concept was first introduced in 1967 for the 3000 white collar workers in administration and also in Research and Development at the head-quarters near Munich with the intention to reduce the clocking on and off and the resultant traffic jamming of everyone being required to start and finish work at the same time. In late 1970’s the use of flexitime had spread all over Europe. The first U.S. Company who execute the flexible working hours in 1973 was the HP at Boblingen, Germany which enable the employees to come early or late at work and worked a standard number of hours every day. Americans choose flexibility over money.

In Asia, FWAs are generally not widely used and relatively few studies on the practice have been carried out (How & Chew, 2006). The study reveals that demand for FWAs across Asia is strongest in Japan compare to other countries such as Singapore, India, Thailand and Taiwan. In accordance with the continuous improvement initiative inspire the administration conveyance framework to the public, flexible working hour’s schedule which is otherwise called Staggered Working Hours (SWH) has been implemented in the Federal Territory of Kuala Lumpur commencing 1<sup>st</sup> May 1998. The government has concurred for the SWH to be extended to all organizations in the Federal Government all through the nation with the key goal of this strategy is to build the administration and broaden benefit duration to the general population. Crush (1994) argued that implementation of flexible working hours is an effective stage to increase productivity without increasing the work force.

### **Research Problem**

Identifying what are the effects that can increase and enhance the employee performance is crucial and a very challenging job for human resource nowadays specifically for white collars segments. Organization must critically select the best possible tools and activities to motivate these white collar employees for them to deliver a quality output. There are many challenges to be tackled by an organization and those identified for this research are productivity, job stress, absenteeism, work-life balance and traffic.

### **Productivity**

The productivity of any organization depends on the performance of its employees (Armstrong, 2006). There are various factors that influence the performance of employees in an organization

which may increase or decrease. Armstrong (2006) further observes that employee satisfaction is likely to increase one's performance as one will always exert himself or herself to a task that they feel they are capable of and in an environment that is conducive. Factors such as work pressure, fatigue and high stress levels are possible to limit performance in an organizations (McNall, Masuda, & Nicklin, 2010). This is due to employee unable to perform their assigned task effectively and efficiently if they are pressured or fatigued.

### **Job Stress**

Job stress happened when one cannot properly coordinate available resources and job demands with personal abilities (French, 1975). He described that job stress is derived from a situation of job environment that poses threat to an individual. Additionally, job stress has been known globally as a social problem (Mizuno et al., 2006) which has a combination of factors that disrupts the workers physically and psychologically (Lu, 1997), and affects the employees' health care as a whole (Conway et al., 2008). The potential of job stress could arise from environment, organizational and individual (employee) factors. The stress on work impacts on employee's personal outside the work-life which creates difficulties in finding work-life balance.

### **Absenteeism**

Reported reasons for absences have not changed with employees reporting time off for flu or cold, stomach upsets or food poisoning, headaches or migraines as the reason for being off sick. HR specialists also thought that a proportion of sickness absence was due to the need for employees to take time off to look after a child or other family member. According to Theo Blackwell, policy Specialist at The Industrial Society, "Left unchecked, absenteeism hits productivity and erodes morale in organisations. Firms should frequently examine the causes of absence and take appropriate action by promoting workplace well-being or flexible working practices". Unable to take time-off to settle matters related to personal will induce absenteeism.

### **Work-life balance**

Conflicts that arise from the roles in the two main domains (work and family) may weigh down on the employees performance. Each individual is exposed to a range of stressors both at work and his or her personal life which ultimately affects work performance (Feddock et al., 2007). Subramaniam and Selvaratnam (2010) pointed out that almost half of women employees in Malaysia face difficulties of balancing work and their family life. The evidence suggests that those employees who have work-life balance difficulties experience higher stress then those who found balance between work and life resposibilites (G.Lowe, 2006).

### **Traffic**

Some employees face dense traffic in their daily commutes. Spending more time on the road rather than at work has negative effect on job satisfaction. It also increases strain and mental health of employees. The longer they commute, the less satisfied they may be with their job and with life in general. May a train broke down or bus got stalled in traffic, it will be even a worse situation then for the employee. US studies have found work commutes induce stress (Novaco and Gonzales, 2009). Thus, it has been found that long work commutes in congested automobile traffic cause residual stress in workplace (Novaco et.al 1990).

### **Literature Review**

Dependent variable is the outcome or condition that may change as a result of being subjected to or exposed to the treatment or an independent variable. Dependent variable are also known as "response" or "output" or "criterion" variables. Analogous to the "effect" in a cause effect

relationship. The dependent variable for this research is employees' performance. One of the elements that is assessable for employees' performance is through the level of their productivity.

Independent variable is the variable that produces an effect or result on the dependent variable in a casual hypothesis. Independent variables are also called as "stimulus", "input" or "predictor" variables. Analogous to the "cause" in a cause effect relationship. The independent variable identified for this research is flexible working arrangements.

The basic requirements of life are changing due to financial, social, political and economic constraints and people of both genders are compelled to work. This is added with other factors as well such as increasing competitive pressure, technological changes, changes in the sectorial structure, convenient working hours and unemployment (Celenk H, Atmaca M, 2011 & Lee D. R., 1996). Hence, in order to have a work-life balance and to maintain a healthy family life, the FWAs are equally acceptable by both male and female employees. The evidence suggests that FWAs fit women due more than men and are more likely to be employed by women due to ideology beliefs of motherhood (S. Lewis and A.L. Humbert, 2010). The flexible working arrangement practices leads to balance the job responsibility and children's safety at home especially for working mother (Michael, 2004). The findings from previous research also assert that women request and access the flexible working hours more frequently than men (N. Skinner and B. Pocock, 2011). Nevertheless, due to change in family patterns and gender norms, as well as rise of women workforce, flexible employment is slowly started utilizing by men these days (D. Hofacker and S. Konig, 2013).

Costa, Sartori and Akerstedt (2006:1129) found that both variability, explained as company control and decision, and flexibility appeared to have had a substantial influence on conditions related to health and well-being. The business benefits of FWAs include improving recruitment through widening the talent pool and making workplaces attractive places to work, improving employee retention, increasing employee commitment and discretionary effort, reducing absenteeism, increasing productivity and improving profitability (EEO Trust, 2007; Family Friendly Working Hours Taskforce, 2010). Recent research findings support a strong business case for the adoption of FWA policies as such policies lead to increase in work-life balance, job satisfaction, motivation, commitment and reduce absenteeism.

Trust between employee and employer is an important issue when it comes to flexible working arrangement. If it is not monitored by manager, FWAs might create some difficulties in the workplace. A number of academics, businesses and other organizations argue that the right to request should be universally available to any employee who has a need for some form of flexibility, Hegewisch and Gornick (2008) or example, suggest universal availability has less danger of entrenching a 'mummy track' and would have ease of application from a human resource management perspective as it would reduce the pressure on employers to decide who qualifies.

Ya Tang and Wadsworth (2008) has conducted a research on the time and workplace flexibility it has been analysed that "flexibility is highly valued by the employees in which a large majority of all the employees report that having the flexibility they need to manage work and personal or family".

**Work-life balance** is the most inductive factor for employee to opt for flexible working arrangement. Work-life balance is the used in the literature to refer to policies that strive to achieve a greater complementarity and balance between work and home responsibilities. It also referred to as family friendly work arrangements (FFWA) and in international literature, it's known as alternative work arrangements (AWA). The development of firms for the adjustment of actual working hours to market/customer demands without diminishing employees' well-being and practices that improve well-being without diminishing firm performance. Flexible working was seen as a positive factor in achieving a better work-life balance. Research by Haar

(2010) found that work-life balance issues continue to be important to employees during recession even if employees fear losing their jobs.

UK Taskforce on working hours recently suggested that the recession has created a climate where there is an even stronger appetite for flexible working (Family Friendly Working Hours Taskforce, 2010). FWAs help to fulfil work-life responsibilities and in return it result to a work-life balance. In the recent work-life balance survey, researchers found that employees believe that FWAs improve workplace morale, which might positively influence work-life balance; in addition employees believe that employer is able to help them balance their work and life roles (S.Tipping, J. Chanfreau, J. Perry and C. Tait, 2012). By having flexible working, the staffs have more suitable time to cater responsibilities towards the family including food, children safety and shopping without any stress (De Roure, 1995).

Another identified factor is **job satisfaction**. Job satisfaction reflects “the extent to which people like or dislike their jobs (global satisfaction) or aspects of their jobs (facet satisfaction)” and “commitment concerns the employee’s attachment to the organization” (Spector, 1997:236). Increased job satisfaction was largely reported by those who work flexibly. FWA enhances job satisfaction. JP Morgan Chase’s annual employee survey found that employees with an option of flexibility were much more likely to report overall satisfaction than those who felt they did not have access to flexibility (Richman, A., Johnson, S., and Noble, K. 2011). Job satisfaction and organizational have been associated with many important organizational outcomes, including reduced absenteeism and turnover, as well as increased productivity and organizational citizenship behaviours (Judge, Thoresen, Bono & Patton, 2001; Mathieu & Zajac, 1990; Tett & Meyer, 1993). Flexible work was also statistically significant related to job satisfaction and has a general positive influence on the dimensions of job satisfaction (Green and Heywood, 2011:723).

**Motivation** is also deemed to be significant factor for the implementation of FWA. DeCenzo and Robbins (1996) define a motivation as the willingness or desire to do something, conditioned by the activity or ability to satisfy some needs. Motivation increases the job involvement by making the work more meaningful and interesting as well as the fact that it keeps the employees more productive and improves their subsequent job performance (Kamery, 2004; Ekerman, 2006). Employee motivation is one of the most important and essential factors for the achievement of employees and ultimately the organizational targets and goals (Berman et al., 2010). Employee motivation serves as an essential component of business operations whereby high motivation coincides with job satisfaction, a sense of pride in one’s work, a lifelong commitment to organizations which enhances performance and productivity (Linz et al., 2006).

Kreitner and Kinicki (2001) defined motivation as a psychological process that continuously raises motivation, direction and voluntary actions towards achieving goals. It is very important to motivate employees for increasing their performance. In an organization where employees are valued for their knowledge, qualification and skills, the best employee motivation efforts focus on what employees deem to be important. Suitable working hours are needed by the employees to have a balance between working hours and time to be spent with family and personal matters at home. The employee will feel more motivated if time spent with children at home is extended. Therefore, to increase the employee motivation towards vision and mission, each organizations needs to emphasize on their staff welfare.

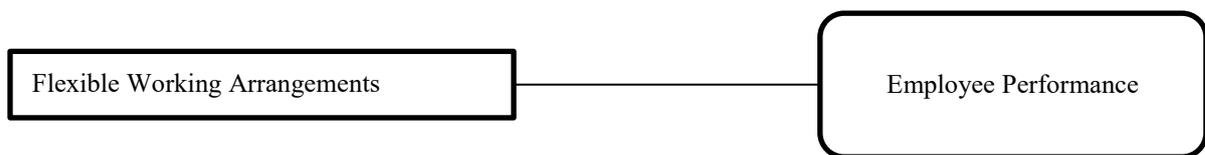
One more influencing factor for FWA is **commitment**. High levels of commitment were identified by those who themselves worked flexibly, and this was supported by colleagues and managers. FWA allows employees to balance their work and life commitment. Flexible working arrangement is likely to increase employees’ affective commitment to the organization. Employee tend to share the culture of the organization and become loyal to it. A study of five organization that implemented flexibility reported that overall commitment was

55% higher for employees with flexibility and stress and burnout was 57% lower (Richman, A., Burrus, D., Buxbaum, L., Shannon, L., and Yai, Y. 2010).

The last identified factor which induces the FWA for this research is **absenteeism**. Increased productivity, reduced employee turnover and absenteeism have been identified as advantages of flexible working for the employers (Anon, 2008). Flexibility of time reduce tardiness, absenteeism, turn over and improve employees' morale and mental and physical health and performance (Lee & Devoe, 2012). Fynes et al. (1998), identified among the advantages gained by the staff through the implementation of flexible working hours are the ability to reduce absenteeism, reducing stress improving staff moral and increasing staff motivation at work.

### Conceptual Framework

The conceptual framework below denotes the significant relationship between the flexible working arrangements and employees' performance.



Researcher found emotional and instrumental support for employee during work has a positive relationship with the work-life balance satisfaction (A.K. Abendroth and L. den Dulk, 2011). The positive relationship has been found between work-life balance and work performance (S.K. Lyness and K.M. Judiesch, 2008). Hence, successful accomplishment of life responsibilities (family and parental role) results in better work performance.

FWAs leads to increase satisfaction with the job and employers, resulting in higher work commitment. (C. Kelliher and D. Anderson, 2010). Previous research proved that the flexible working hours contributed to higher job satisfaction, motivation and employee engagement (Mc Nall et al., 2010). Brummelhuis, Haarb, and Lippe (2010) observed that flexitime allows for ways of efficiently serving customers hence, increasing the number of those served by the end of the day due to more fresh, sharper, calmer and motivated employees.

Baltes et al's (1999) meta-analysis showed that flexitime had a positive effect on absenteeism, whereas compressed working time had no effect.

All the above contribution factors further promotes and confirms there is a significant relationship between flexible working arrangements and employee performance.

### Conclusion

The ultimate aim of this study is to investigate how the adoption of flexible working arrangements may effects the employees' performance by elaborating in detail the significant relationship between the employee performance, the dependent variable and the flexible working arrangements, the independent variables. This study do not use any mediating variable as an escalating factor between the dependent variable and independent variables. Review on previous literatures shows that flexible working arrangements has been widely accepted by organisations with white collar segments and has positively improved employees' performance. As overall, there is no doubt that FWAs have positively attributed to the improvement in employees' performance.

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# The Moderating Effect of Multinationality on Intellectual Capital – Profitability Relationship of Malaysian Banks

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## Abstract

**Purpose:** Taking cognizance of operating in a globalised, knowledge asset centric growth model, Malaysian banks are quick to embrace intellectual capital with a multinational approach to sustain competitiveness. This study seeks to empirically examine the relationship between intellectual capital, multinationality and profitability of Malaysian banks.

**Design/methodology/approach:** This is a quantitative study drawing secondary longitudinal data of eight Malaysian commercial banks for 11 years (2007-2017). Using Pulic VAIC<sup>TM</sup> theoretical model, moderated linear regression is used to analyse the moderating effect of multinationality on the relationship between intellectual capital and profitability.

**Findings:** The results suggest Malaysian banks can successfully leverage on intellectual capital to go multinational to increase profitability.

**Research limitations/implications:** The limitations of Pulic VAIC<sup>TM</sup> model and only secondary data are used.

**Practical Implications:** The results provide empirical evidence to support banks strategy to leverage on intellectual capital to internationalise their operations to optimize profits.

**Originality:** This study synthesizes the interaction effect of multinationality on intellectual capital in generating profits.

**Keywords:** Intellectual Capital, Multinationality, Profitability

## Introduction

The global movement towards a knowledge- based economy has brought major structural shifts in the global economic structure. This has given rise to a huge interest in intellectual capital (Florinda Matos, 2017; Hussinki 2017; Dumay, 2014; Serenko, 2013). Research on intellectual capital has evolved since its early stage of development from the late 1980's focusing on creating awareness and raising consciousness of intellectual capital (Bontis,1998; Stewart,1997; Edvinsson,1997; Barney, 1991) to the present day, where practitioners recognise and use intellectual capital as a strategic tool for wealth creation (Meles, 2016; Andreeva & Garanina 2016 ; Edvinsson, 2013).

The evolution of the present day growth model focussing on knowledge and innovation away from the industrial era physical input driven growth model, accelerated with the advent of the

new millennium (OECD 1999, 2006). This has propelled emerging economies including Malaysia to recalibrate its development philosophy towards intellectual capital centric growth model (Eleventh Malaysia Plan 2016-2020, Financial Sector Blueprint, 2011-2020).

Despite the multinational approach of Malaysian banks (Financial Sector Blueprint, 2011-2020) and the acknowledgement of the pivotal role of intellectual capital in creating value (Eleventh Malaysia Plan 2016-2020), there is still a dearth of research on the synergy between intellectual capital and multinationality in generating profits. The few researches (Poh et al. 2018; Shamsudin & Yian, 2013; Maheran 2009; Ting and Lean 2009) only focussed on the relationship between IC and profitability per se. This research is premised on filling the above gap by synthesizing the effects of multinationality on IC in creating value and generating profits.

## **Literature review**

### **Definition and Components of IC**

The OECD (1999) describes IC as “the economic value of two categories of intangible assets of a company; structural capital and human capital” in line with the definition by Pulic (Pulic, 1998, 2000). Human capital is knowledge that employees take with them when they leave the firm and includes knowledge, skills, experiences and abilities of people. Structural capital refers to knowledge that stays with the firm at the end of the day and comprise organizational routines, procedures, systems data bases, computer proprietary software, manuals, supply chains, distribution networks, and process systems (Barney 1991, 2007; Roos et al., 2005; Lev 2001; Brooking 1997; Itami & Roehl 1987).

### **Intellectual Capital-Profitability Relationship**

Findings from studies using VAIC<sup>TM</sup> model to empirically test the relationship between intellectual capital and profitability measured by ROA/ROE of financial companies in Malaysia (Poh et al., 2018; Shamsudin & Yian 2013; Malina, 2013), United States (Meles et.al 2016), Europe (Kaupelyte et.al 2016; Gigante 2013), India (Venugopal & Subha 2015; Kumar & Amitava 2015) are positive even though samples are from developed and developing countries and different statistical techniques are employed.

Multiple linear regression is used in all the above studies except Kaupelyte et.al.2016; Shamsudin & Yian 2013) used panel data modelling and Venugopal and Subha (2015) used PLS modelling.

No differences in findings are detected using different profitability metrics. Researchers using: ROA and ROE (Poh et al.,2018; Meles 2016; Kaupelyte 2016; Shamsudin and Yian 2013); only ROA (Nimtrakoon 2015; Gan & Saleh 2009; Ting and Lean 2009); only ROE (Qian et al.,2013); economic value added (Payam 2013); net profit margin/EBITDA (Vladimir 2017) all indicated positive relationship between intellectual capital and profitability.

Findings from using primary or secondary data do not indicate any differences. Findings by researchers using primary data generated from surveys and interviews from Russia, Iran, Belgium and Luxembourg (Andreeva 2016; Asiaei and Ruzita, 2015; Mention and Bontis, 2013) or secondary data from Arab countries, USA, Europe, South East Asia, India, Malaysia and Australia (Vladimir 2017; Meles 2016; Kaupelyte 2016; Nimtrakoon 2015; Venugopal and Subha 2013; Poh et al., 2018; Shamsudin and Yian 2013; Gigante 2013; Zeghal 2010) do concur that intellectual capital has a positive relationship with profits.

Empirical results from the above researchers suggest that despite differences in the types of data, performance metrics, statistical techniques and geographical origin of samples used, there is a positive relationship between intellectual capital and profits.

### Multinationality and Profitability

Multinationality refers to “international geographical diversification” (Kirca, 2012) with a view of reducing variability in returns (Glaum and Oesterie, 2007; Gaur and Kumar, 2009). Researchers refer to multinationality to having operations in several countries (Kirca, 2012; Yang, 2011). This study classify banks that have operations in more than three countries outside the home country during the entire period of study as multinational banks.

Bolaji and Chris (2014) and Cheliah, Sulaiman and Yusoff (2010) found a positive relationship between multinationality and profitability; Capar (2016), Pan (2010) and Glaum (2007) found no significant relationship whereas meta- analysis by researchers (Kirca, 2012; Yang, 2011) found many other factors including industry type and performance indicators used influencing the multinationality-profitability relationship. Studies on the synergy of multinationality and intellectual capital on profitability is lacking.

### Research model

This is a quantitative study seeking to investigate the relationship between intellectual capital and profitability employing Pulic VAIC™ model (1998, 2000). Pulic first applied it to Austrian and Croatian banks and since then it has attracted the interest of many researchers (Poh et al., 2018; Vladimir, 2017; Meles et al., 2016; Kaupelyte et al., 2016; Isola et al., 2016; Joshi et al., 2013; Shamsudin & Yian 2013; Santanu & Amitava, 2012) and for the last decade more than 30 studies have been published (Stahle et al., 2011).

### Value Added Intellectual Capital (VAIC™) Model

The derivation of the model is adopted and modified from Pulic (Pulic, 1998, p 9-12; Pulic, 2008, p 19-20).

Value Added for the company for the year = VA

$$\mathbf{VA = I + DP + Di + Ti + Mi + R + (W+S)} \quad \mathbf{1.1}$$

I = interest expense, DP = depreciation, Di = dividends, **Ti** = taxes,

Mi = minority interest, R = retained profits, (W+S) = wages and salaries

$$\mathbf{CEE = VA/CE} \quad \mathbf{1.2}$$

CEE = capital employed efficiency coefficient

Capital employed (CE) = shareholders equity + long term loans

$$\mathbf{HCE = VA/HC} \quad \mathbf{1.3}$$

HCE = human capital efficiency coefficient

HC = human capital

$$\mathbf{SCE = VA/SC} \quad \mathbf{1.4}$$

SCE = structural capital efficiency coefficient

SCE = SC/VA

SC = VA - HC

$$\mathbf{VAIC^{\text{TM}} = (HCE + SCE) + CEE} \quad \mathbf{1.5}$$

$$\mathbf{= ICE + CEE}$$

For this research, multinationality is introduced into the VAIC™ theoretical framework as the moderator. The modified VAIC™ model is illustrated in Figure 1.1 below.

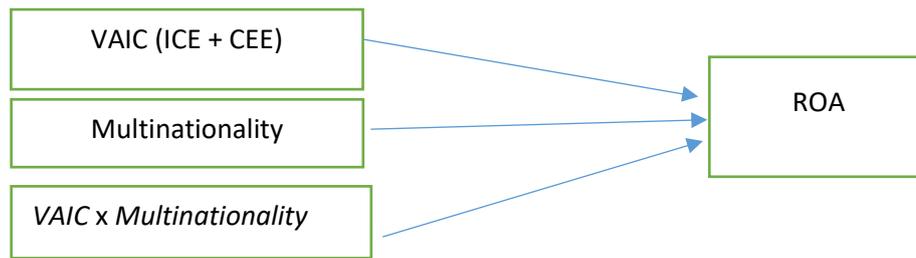


Figure 1.1 *Modified* Pulic VAIC<sup>TM</sup> Model  
 The variables added to the VAIC<sup>TM</sup> model are in italics.

### Hypothesis development

The Resource Based theory postulates that wealth creation of companies comes from the bundling of resources internal to the company (Wernefelt, 1984; Rumelt 1984; Penrose 1950) and supported by findings of researchers (Poh et al., 2018; Meles et al. 2016; Kaupelyte & Kairyte. 2016; Venugopal and Subha 2015; Shamsudin and Yian, 2013; Ting & Lean 2009), it is postulated that intellectual capital and ROA is positively related. Hence;

H1: VAIC and ROA is positively related.

The internalization theory states that firms move abroad when the benefits of exploiting its own firm specific advantage which includes human capital skills, technology and business processes exceeds its cost ( Grubel 197; Hymer 1976 ), hence the higher these firms exploit the resources, the higher is the profitability (Bolaji & Chris 2014; Chelliah et al., 2010). Based on the internalization theory and supported by empirical findings by researchers (Kirca, 2012; Yang, 2011), it is postulated that multinationality moderates the relationship between intellectual capital and ROA.

H2: Multinationality moderates the relationship between VAIC and ROA

### Measurement of Variables

VAIC is measured by the aggregate of ICE and CEE. The moderating variable is multinationality, a dichotomous variable with banks with multinational operations denoted as 1 and banks with predominantly domestic operations denoted as 0. The classical understanding of moderation is that the moderator weakens the relationship, but a moderator can actually amplify the effect of the relationship or even reverse the effect (Kenny, 2011). Multinationality is used as the moderator to test whether it alters the strength of the relationship between VAIC and profitability. The dependent variable is average ROA. Average ROA is used to measure profitability as the average figure shows the performance over the period measured (Reilly, 2014; Subramanyam 2011). Average ROA is total net profit divided by average total assets. ROA is chosen as the dependent variable like most other researchers using the VAIC<sup>TM</sup> model (Poh et al., Meles 2016; Kaupelytė, 2016; Venugopal, 2015; Shamsudin &Yian 2013; Ting &Lean, 2009).

### Empirical Models for Testing Hypotheses

Model 1, the main effect model is used to test H1: VAIC contributes positively towards ROA.

$$ROA_i = \alpha + \beta_1 VAIC_i + \varepsilon_i$$

Model 2 is used to test H2: Multinationality moderates the relationship between VAIC and ROA

$$ROA_i = \alpha + \beta_1 VAIC_i + \beta_2 M_i + (\beta_3 VAIC_i \times M_i) + \varepsilon_i$$

Model 2, the interaction or moderated model is used to test the moderating effect of multinationality (denoted by *M* in the equation) on the relationship between VAIC and ROA. Moderating effects can be tested by incorporating multiplicative terms in the regression model (Hayes, 2013; Preacher, 2003; Jaccard, 1990).

### Research Methodology

This is a quantitative research using secondary longitudinal data obtained from Bursa Malaysia and annual reports of 8 Malaysian banks (Maybank, CIMB, PBB, RHB, HLF, AMMB, ABMB and Affin Bank with the first 4 being classified as banks with international operations) for 11 years from 2007- 2017. Linear regression is used to analyse the direct relationship between VAIC and ROA (Poh et al., 2018; Meles 2016; Gigante 2013; Joshi 2013; Ting &Lean 2009) and moderated linear regression (Landis, 2000) is employed to analyse the moderating effect of multinationality on VAIC and ROA using SPSS.

### Results

Table 1: Mean of independent and dependent variables

Year/Variables	VAIC	ROA
2007	3.62	0.89
2008	3.86	1.15
2009	3.79	1.01
2010	3.67	0.95
2011	4.07	1.25
2012	4.29	1.34
2013	3.96	1.24
2014	4.17	1.24
2015	4.14	1.16
2016	3.75	1.01
2017	3.56	0.92
Average	3.92	1.12

The highest mean of VAIC of 4.29 was recorded in 2012 which corresponds with the highest mean ROA of 1.34 whereas the lowest mean VAIC recorded was 3.56 in 2017 and also corresponds with a low mean ROA of .92. Hence, it is apparent that there is a positive correlation between VAIC and ROA.

Table 2: Pearson Correlation Analysis

Variable	ROA	VAIC
ROA	1	.609**
VAIC	.609**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation coefficient between the dependent variable ROA and the independent variable, VAIC ( $r_p > 0.5, p < 0.01$ ) shows a positive large effect size (Cohen 1988), indicating that as intellectual capital efficiency increases, ROA increases.

### Hypothesis Testing

Table 3: Regression results

Variables	Coefficient	t-statistic	Significance
<b>Panel A Main effect</b>			
Constant		3.151	.382
VAIC	.094	1.875	.004
<b>Panel B Moderation</b>			
Multinationality	-.988	-3.880	.000
Moderator (moderator = VAIC x multinationality)	.325	5.000	.000

\*ROA dependent variable

Moderator  $R^2$  change = .115, F change =24.999, Sig F change =.001

#### Hypothesis 1: There is a positive relationship between VAIC and ROA

There is a positive significant relationship between VAIC and ROA,  $p < .005$ . **Hypothesis 1 is supported.** This is in line with results from studies by researchers in banking and non-banking industries and from developed and developing countries including Malaysia, Russia, Nigeria, USA, Europe, India and Australia (Poh et al. 2018; Vladimir 2017; Isola, 2016; Meles 2016; Kaupelyte, 2016; Nimtrakoon 2015; Shamsudin & Yian 2013; Mention, 2013; Santanu Kumar, 2012; Clarke, 2011; Ting & Lean 2009).

#### Hypothesis 2: Multinationality moderates the relationship between VAIC and ROA

For moderation to be supported, the predictor variable, VAIC must be significantly related to ROA in the main effect model (Panel A) and the interaction model (Panel B) must explain more variance of ROA than in the main effect model (Field, 2014). The increase in the variation explained by the addition of the moderator, or the interaction term increases by 11.5% and is statistically significant,  $p < 0.005$ . Multinationality moderates, and in this case amplifies the relationship between intellectual capital and ROA. Hence, **Hypothesis 2: Multinationality moderates the relationship between VAIC and ROA is supported.**

Comparisons with previous studies are unavailable as if there is, is limited. This finding affirms the internalization theory which postulates that companies seek geographical diversification to sustain and increase profitability and hence supports the Malaysia national development strategy of urging banks to seek sustainable growth through internationalization (Eleventh Malaysia Plan, 2016-2020; Financial Sector Blueprint, 2011-2020).

#### Conclusions and suggestions for future research

The results affirm the positive synergy between intellectual capital and multinationality on profitability. Banks can leverage on intellectual capital to go multinational to optimize returns

from assets, ROA. Results also provide empirical evidence to support the twin strategies of Malaysian development plan of identifying intellectual capital and multinationality as the catalytic driver of profitability. It is suggested that policy makers continue to formulate policies to incentivize firms to invest in intellectual capital with a multinational approach whereas management of banks to continue invest in and manage intellectual capital to maximise sustainable returns. Banks with predominantly domestic operations could consider multinationality as a viable growth strategy.

The findings of this study can be generalised to the banking industry of other countries. Even though this study is confined to Malaysian domestic banks, literature review attest that types of data, statistical technique employed for data analysis and country, developed or developing, do not affect the results.

This study contributes to the literature on the relationship between intellectual capital, multinationality and profitability by synthesizing the effects of intellectual capital and multinationality on profitability unlike previous studies which only focused on intellectual capital-profitability and multinationality-profitability relationship per se.

The limitations of this study generally arises from the inherent weaknesses of Pulic VAIC<sup>TM</sup> model (Stahle 2011; Andreissen, 2004). Nevertheless, the VAIC<sup>TM</sup> model is acceptable as there is no one perfect way to capture and measure the complexities of business entities (Fijałkowska, (2014).

Future researchers could venture into the area of sustainable intellectual capital (Gallardo-Vázquez, 2017; Matos & Vairinhos, 2017; Wasiluk 2013) known as the fifth stage of intellectual capital research (Massaro et al., 2018). Research on the linkage between sustainability or corporate social responsibility and intellectual capital on performance of companies is timely and relevant area of research since companies in Malaysia are reporting on sustainability in their financial statements and there is hardly any such study on sustainable intellectual capital as yet especially in the Malaysian banking sector.

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# The Relationship between Purchasing and Operational Improvement; Supply Risk Management Perspective - A Study on SMEs (Manufacturing Sector)

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## **Abstract**

**Purpose:** The purpose of this paper is to provide a holistic paradigmatic lens through which the supply chain risk management and enhancing Purchasing performance and Operational improvement can be well understand and explained.

**Design/methodology/approach:** This paper explores the Supply risk management and practices that promote or hinder relationship in between Purchasing and Operational improvement from the variety of theoretical lenses including contingency theory, the resource based view of the firm, the relational view of the firm.

**Findings:** To demonstrate how an integrated theoretical framework can helps to understand the Supply risk management and its influence on Purchasing and Operational improvement, the paper uses the framework to explicate the evaluation and state of collaborative risk management in the context in supply chain.

**Research limitations/implications:** This study did examine supply risk management practices, purchasing and operation in relation to how long the SMEs ha implemented supply risk management, other limitations of this research are related to the unrevealed effect of the type of industry on SRM, PP, OP and also to the limited number of SMEs manufacturing sector take part in this research.

**Practical implications:** The framework can accurately depict and explain highly importance of Supply risk management practices which helps to overcome uncertainties along the supply chain and continuously improving the key functions of Purchasing and Operations.

**Originality/value:** As a result, it is clearly justify that there is strong influence of supply risk management on Purchasing and Operational improvement. This holistic, integrative model delineates the path to supply risk management success by exploring the connections among purchasing and operations.

**Keywords:** Supply Risk Management, Supply Risk, Purchasing Performance, Operational Performance, Supply Chain Risk Management

## 1. Introduction

The failure of suppliers mostly will create vulnerability along entire supply chain. For instance, organization can't stand competitively in the market because of problematic suppliers. So choosing a supplier is a decision made exactly like any other risk decision in the organization. However, selecting and managing of suppliers is become increasingly strategic decision for large or even small organizations either. The Small and Medium Enterprise (SME) consider an essential sector in most of the countries, they perceived as an export-oriented industries highly exposed to the buffets of global demand and prices. Although, SMEs are smaller size; however bear the same risks as many large organizations. The main difference is scale and severity of impact on the firms. Risk an accepted mantra in small and medium organizations as per perceived by large organizations. For instance, as per stated by a local entrepreneur, Jahanath Muthusamy, "Business in general risk –rich environment, and there are many factors that could hamper SMEs growth (Zul, 2011)

The purpose of this study is to determine the underlying dimensions of Supply risk management (SRM) practices and to empirically test a framework identifying the relationships among purchasing management improvement and operational improvement with special emphasis on medium size enterprises only in Malaysia. Although the needs and operating environment of SMEs are very different from those of large firms, there is a dearth of literature regarding the use of SRM practices and its effect on performance of SMEs in emerging market economies such as Malaysia.

## 2. LITERATURE REVIEW AND HYPOTHESES

### Purchasing Performance Improvement (PPI)

Dess et al. (2010) states that the failure of suppliers greatly impacts the reconfiguration of existing purchasing process in an organization, capability that had been constrained execution of such an effective SRM to today's emerging supply chain context is extremely important. It puts organization on guard for unexpected consequences that must be addressed by thoughtful system and appropriate to practice (Lynch 2009). Most of organizations are able to integrate SRM in their supply chain encompassing suppliers, customers, and distribution channels within their industry. The effective SRM can be a possible way to improve partnerships with suppliers and can be a possible way to improve purchasing management and that benefits both suppliers and organization bottom line (Micheli et al., 2008;Lynch, 2009). Precisely intimate business environment change the law of business, now the key suppliers become more than anything to organization. In all instance, alliance with supplier continues to accelerate due to the economic changes and opportunity for greater efficiency. The long-term relationships, empowerment and visibility from supplier side, collective intelligence and analysis (both parties), trigger-based risk identification systems, and on-site systems analysis and help to improvement or reduce supplier uncertainties with high trust (Micheli et al., 2008; Matook et la., 2008;Lynch, 2009). Obviously and ironically, that is an investment on buying organizations as a part of modification to sustain their purchasing competitiveness.

Accordingly to Lynch (2009) organizations should think wisely and comprehensively to benchmark the supplier risk. Such as effective SRM, this method only can work if it's extends all the way from starting point to ending point of purchasing process. Organization should focus on the upstream to supplier risk, in the same extant organization need to well understand that a suppliers risk is not external, it's part of the organizations overall supply chain paradigm and forever can't be separated (Lynch, 2009). For instance, the execution of SRM will help to evaluate suppliers' failure continuously. Suppliers have to be monitored to see if expected performance materializes. This mechanism helps to screen to see if their potential warrants serious future consideration. Since most of organizations tend to place a significant portion of

repetitive business with the same suppliers, evaluation and benchmarking their failure to gain win - win situation (Leenders and Fearon 1997)

On the other side of equation, there are some scholars' claims that the central argument now becomes how organizations can achieve higher levels of purchasing performance with managing supply risk. With effective SRM an organization can gain a sustainable purchasing improvement by two ways (Porter, 1998; Burt et al., 2004; Koh et al., 2007; Matook et al., 2008; Dess et al., 2010). Precisely, the primary one is purchasing operational effectiveness and the secondary is purchasing strategic position. SRM is the powerful mechanism available today for enhancing purchasing ordering process improvement by tackling suppliers' failure (Lynch 2009).

### **Operational Performance Improvement (OPI)**

A central objective of execution of effective SRM is to increase source of operational competitiveness for an organization to differentiate itself in the eyes of the customers from its competitors by operating at a lower cost and hence at a greater profit (Lenny et al., 2007). Evidence from various scholars the dimensions of operational performance which may as well can be applied to SMEs context (Lenny et al., 2007). The measures of the operational performance emphasis in research are, produce product consistently, minimize operational down time and cost, reduced lead time in production and maximize internal customer satisfaction, Meet customer urgent delivery requirement and Quick response to customer enquiry. These measures are identified in the following paragraphs.

Precisely, benchmarking the quality delivery of goods from supplier will help to improve the resources planning and cost saving (Koh et al., 2007; Slack et al., 2007). Managing supplier risk with SRM will anticipate the utilization of resources will be optimized leading to cost savings. For instance, managing quality and delivery risk from supplier will reduce cycle time in production could be materialized through reducing rework cost of goods, service down cost, inspection and test costs, inventory cost, processing time cost and other non-value added activities (Slack et al., 2007). With speed in operation process will shortened cycle time, more orders could be processed, which would then result in improved efficiency and reduced operation down time and production cost per unit.

The continuous improvement in operation process can be primary goal of customer satisfaction. According to Leenders and Fearon (1997) the operation process should be conform to specifications that are driven by the needs and wants of customers. All processes, including supplier performance need to benchmark and control to achieve the quality expectation. This will further improve the productivity and reduces total cost. Precisely, the partnership with suppliers considers the process of overall quality management in an organization. For instance, SRM practice may enhance flexibility, where they have ability in production process to adapt to the changes of its customers specific requirements. For instance, collaborating with low risk suppliers could increase flexibility generating alternative sourcing for procurement by reducing impacts supply risks. Building long term partnership with suppliers through SRM will help improve on product/service flexibility, volume flexibility and delivery flexibility for buying organization (Slack et al., 1998).

### **3. Research methodology**

A survey instrument was developed to investigate the impact of SRM practices on the SMEs in manufacturing sector. The questionnaire was pre-tested several times to ensure that the wording, format and sequencing of questions were appropriate. Data for this study were collected from a sample of 166 medium manufacturing SMEs operating in Malaysia. The actual estimation of samples is 200 from total establishment of 2,061. 2 questionnaires were rejected

due to insufficient of information, double entry of information and in complete of answers. Only 164 questionnaires are analyzed.

The details of participants gather from latest updated version of Malaysia SME Business directory. This directory provides all information pertaining with establishment of SMEs in Malaysia such as SMEs latest listing with name, address, contact details (e.g. Tel No, E-mail) and their business nature. In the same time, provides the contact person details such as Owner of the company, Director of company and Managers. Basically the researcher uses this business directory to obtain the contact details and all this information are available in CD-ROM and provides full details or the business guide of Malaysian SMEs. The details of SMEs are well organized and easy to excess from this directory. There searchers considered send the questionnaire to respondents early as possible to provide around five (5) to six (6) weeks to response. Furthermore, second reminder sends to all respondents to invite them to participate in the survey. This helped to reduce the poor response and have achieved the desire sample requirement.

#### **4. Results**

There is integration experience through the implementation of effective SRM, such as purchasing level (PPI) and operational level (OPI). Surprisingly, even this concept is still consider new for SMEs but majority of respondents positively welcome and well internalized the importance of this mechanism. The N shows the number of positive feedback from the respondents and the total percentage. The purchasing level benefits such as, “Analyze and benchmark supplier failure”, “improve purchasing process” and “Reduce uncertainties of suppliers” were the three most cited benefits in terms of high percentage. Similarly, the operational level benefits such as “quick response to customer enquiry”, “Minimise operation down time and cost” and “meet customer urgent delivery requirement” cited mostly as well. This might be explained largely by the market conditions facing SMEs.

The below table 1 shows the Cronbach’s  $\alpha$  measure of reliability for PPI and OPI were 0.95 and 0.96 respectively. Although an  $\alpha$  value of 0.70 and higher is often considered the criterion for internally consistent established factors (Hair et al., 1998) and the value of  $\alpha$  is 0.50 and 0.60 is acceptable in the early stage of research. Besides, according to Sekaran (2006) the closer reliability coefficient gets to 1.0 the better, less than 0.60 is considered to be poor, those in the 0.70 range is acceptable and those over .80 good. Since, Cronbach’s  $\alpha$  value for all three group of variables are above 0.90, thus the internal consistency reliability of the measures used in this study can be considered to be good and overall mostly all variables near to 1.0.

Table 1: Frequency and Reliability distribution of PPI and OPI

<b>Benefits of SRM Implementation</b>	<b>N</b>	<b>Percentages (%)</b>	<b>Std. Deviation</b>	<b>Cranbach's Alpha</b>	<b>Cronbach's Alpha Based on standardized items</b>	<b>N. of Items</b>
<b>Purchasing Performance Improvement (PPI)</b>				<b>0.948</b>	<b>0.949</b>	<b>5</b>
Reduce uncertainties of suppliers	140	85.3	.863			
Analyze and benchmark suppliers failure	137	83.5	1.006			
Continuously improve suppliers performance	132	80.5	1.000			
Improve relationship with supplier	134	81.7	1.028			
Improve purchasing process	138	84.2	.973			
<b>Operational Performance Improvement (OPI)</b>				<b>0.962</b>	<b>0.962</b>	<b>5</b>
Produce products Consistently	138	84.1	.890			
Minimise operation down time and cost	142	86.6	.923			
Maximise internal customer satisfaction	135	82.3	.963			
Meet customer urgent delivery requirement	143	87.2	.974			
Quick response to customer enquiry	140	85.4	.982			

The main purpose of usage of this method in this study; firstly to predict the value of the dependent variable for SMEs for whom some information concerning the explanatory variables is available secondly to estimate the effect of explanatory variable (Independent variable) on the dependent variable.

Table 2: Coefficients between PPI factors and OPI Factor (1)

The table 2 above shows the details results relationships between PPI factors and OPI factor

Constructs	Standardized Coefficients ( $\beta$ )	F	Sig	R <sup>2</sup>	Adjusted R <sup>2</sup>
PPI 1 – OPI 1	0.822	487.034	0.000	0.675	0.667
PPI 2 – OPI 1	0.818	450.840	0.000	0.670	0.664
PPI 3 – OPI 1	0.819	572.074	0.000	0.671	0.665
PPI 4 – OPI 1	0.856	869.689	0.000	0.734	0.730
PPI 5 – OPI 1	0.840	195.206	0.000	0.705	0.699

1. The Purchasing performance improvement factors, “Reduce uncertainties of suppliers” (PPI1) ( $\beta = 0.822$ ), “Analyze and benchmark suppliers failure” (PPI2) ( $\beta = 0.818$ ), “Continuously improve suppliers performance” (PPI3) ( $\beta = 0.819$ ), “Improve relationship with suppliers” (PPI4) ( $\beta = 0.856$ ), and “Improve purchasing process” (PPI5) ( $\beta = 0.840$ ), there is sufficient evidence from the study shows all these factors are relatively significant positive relationship with “produce product consistently (OPI1) at  $p < 0.001$  levels. Furthermore the R<sup>2</sup> tends to optimistically estimate how well the model fits the sample in this study. An adjusted average value of R<sup>2</sup> for all these five factors is 0.685, therefore the PPI factors has accounted for 69% of contribution to the dependent variable. This reflect that, there are other possible changes of potential variables can influence or contributes to the dependent variable around 31%, apparently such as technology, labour skill, schedule effectiveness and other possible resources.

Table 3: Coefficients between PPI factors and OPI factor (2)

Constructs	Standardized Coefficients ( $\beta$ )	F	Sig	R <sup>2</sup>	Adjusted R <sup>2</sup>
PPI 1 – OPI 2	0.827	729.410	0.000	0.685	0.681
PPI 2 – OPI 2	0.808	560.000	0.000	0.652	0.646
PPI 3 – OPI 2	0.844	700.666	0.000	0.706	0.706
PPI 4 – OPI 2	0.833	975.331	0.000	0.687	0.687
PPI 5 – OPI 2	0.847	270.318	0.000	0.718	0.713

As for OPI factor 2, the above table 3 reflected, “Minimise operation down time and cost” appeared to more depends on the PPI factors as well, “Reduce uncertainties of suppliers” (PPI1) ( $\beta = 0.827$ ), “Analyze and benchmark supplier failure” (PPI2) ( $\beta = 0.808$ ), “Continuously improve suppliers performance” (PPI3) ( $\beta = 0.844$ ), “Improve relationship with

suppliers”(PPI4)( $\beta = 0.833$ ) and finally “Improve purchasing process” (PPI5)( $\beta = 0.847$ ). Similar to OPI1, the OPI2 factor relatively has positive relationship with all PPI factors with at the  $p < 0.001$  levels (refer to Table 3.2 in appendix A). This shows that, the overall improvement in purchasing performance through these factors highly importance to reduce operation down time and cost. For instance, mostly increases in operation cost mainly due to the operation down time. One of the key factor contribute to the operation down time is delivery of raw materials. Whenever the men and machine are ready and expecting the materials to arrive will push up the waiting time in production and end up with wasting resources and finally increase the operation cost.

Table 4: Coefficients between PPI factors and OPI factor (3)

Constructs	Standardized Coefficients ( $\beta$ )	F	Sig	R <sup>2</sup>	Adjusted R <sup>2</sup>
PPI 1 – OPI 3	0.793	712.152	0.000	0.630	0.623
PPI 2 – OPI 3	0.789	507.775	0.000	0.623	0.618
PPI 3 – OPI 3	0.840	791.028	0.000	0.705	0.701
PPI 4 – OPI 4	0.854	374.448	0.000	0.729	0.724
PPI 5 – OPI 5	0.850	962.008	0.000	0.723	0.718

The above findings shows in above table 4 that the operational performance improvement factor (OPI 3) “Maximize Internal customer satisfaction” more dependents on the purchasing performance improvement factors as well. The average  $\beta$  values is 0.825 and the  $p < 0.001$  levels as well (refer to table 3.3 in appendix A). This finding strongly presents the importance of purchasing performance to increase internal customer satisfaction. For instance, according to (Leeders and Fearon, 1997) purchasing, operation and sales are primary activities in value chain of each organization. These three departments need to work in reciprocal arrangement together to increase the value chain effectiveness. Basically purchasing-production – sales cycle has its genesis in a sales forecast. For instance, the forecast is the basis for the production schedule, which in turn is the basis for the purchasing schedule.

Table 5: Coefficients between PPI factors and OPI factor (4)

Constructs	Standardized Coefficients ( $\beta$ )	F	Sig	R <sup>2</sup>	Adjusted R <sup>2</sup>
PPI 1 – OPI 4	0.810	629.242	0.000	0.656	0.649
PPI 2 – OPI 4	0.806	757.765	0.000	0.650	0.644
PPI 3 – OPI 4	0.816	794.959	0.000	0.667	0.660
PPI 4 – OPI 4	0.827	1110.159	0.000	0.684	0.678
PPI 5 – OPI 4	0.851	500.622	0.000	0.725	0.718

Furthermore, the great achievement in operation process through effective SRM not only wins customer trust, precisely increase the flexibility in term of processing the urgent order requested by them. This only can be achieving, when if that particular organization have unique integration with their backward stakeholders. This clearly reflects in the above findings in table 5. The improvement in purchasing performance (PPI) will help the operation side to entertain and process the urgent order requirement (OPI4) from customers. This scored in average  $\beta$  value of 0.822 and the  $p < 0.001$  levels as well.

Table 6: Coefficients between PPI factors and OPI factor (5)

Constructs	Standardized Coefficients ( $\beta$ )	F	Sig	R <sup>2</sup>	Adjusted R <sup>2</sup>
PPI 1 – OPI 5	0.812	786.387	0.000	0.660	0.654
PPI 2 – OPI 5	0.811	735.057	0.000	0.657	0.653
PPI 3 – OPI 5	0.830	885.219	0.000	0.687	0.683
PPI 4 – OPI 5	0.894	671.340	0.000	0.799	0.796
PPI 5 – OPI 5	0.872	1106.235	0.000	0.761	0.758

The above table 6 shows, mostly SMEs well agreed that the coordinative of purchasing and operation will improve the fast response to customer. The average  $\beta$  value shows at 0.844 and  $p < 0.001$  levels. The purchasing department can be of major help to get a fast response from suppliers; working with suppliers to improve their capabilities will justify smooth operation process and sustain customers with their quick or emergency enquiries. Mostly the majority of participants are agreed and believed that the execution of SRM in SMEs help to improve operation responsiveness by provide fast feedback to sales team in term of stocks of products estimate producing time, and delivery of schedule accordingly.

### **Discussion and Conclusion**

The effective SRM practice leads to the effective connectivity among purchasing management and operational performance, on the other equation, managing suppliers risk and operational competitiveness within the context of SMEs in manufacturing sector. It is firmly shows that SMEs ensuring the execution of SRM will well diagnose the quality and delivery risk sourced from suppliers. By implementing the SRM framework the quality and delivery factors can be well managed. The quality issues in term of goods and service from supplier will be well benchmark and will create new ways to continuously improve to fit into operation requirement. SRM serves as an effective mechanism to standardize the inflow of goods and services as a good stopping point to contribute to the internal operational process. The execution of SRM will increase the expectations of suppliers' performance, where by the quality and delivery problems can be response to much more quickly. Equally important, provide more opportunity for the SMEs to express ideas in term of problem –solving, improve communication with suppliers and lead to positive impact on quality and delivery of goods will lead to further improve purchasing performance.

Further improvement in purchasing performance has direct impact on operational progress. For instances, product and service quality improvement and fast delivery future aspire the operational capabilities. To reach high appropriate operational performance level the SRM perceived as best method by SMEs. The connections between quality of and services from suppliers have direct influence on internal operational dependability, in the same time, the delivery of materials from suppliers as well have direct impact on the speed of internal operational process. The quality of materials into operational process will provide stability (Slack et al., 2007). The stability of operational process goes within the time and cost factors. For instance, the right quality materials into operational process will improve the “quality” of operation. This will lead to the operation activities precisely dependable by internal and external customers.

In the same time, Slack et al. (2007) stated dependability in operational process without any doubt every activity can be predictable. Furthermore with this circumstance, gratification of either internal or external customers can be better accomplished.

Equally significant, on time delivery of materials from suppliers effectively improves the operational process as well (Slack et al., 2007). Again Slack et al. (2007) accepted that the efficiency in materials delivery from suppliers will provide quick and fast movement of materials into operational transformation process. This will be lead to smooth flow of operational process and precisely improve efficiency of operational capabilities.

Furthermore, when SMEs think about to expanding the effective SRM practices, they should revisit their policies, processes and protocols for prioritizing the supply risk. Lynch (2009) stressed that an organizations practices represents yet another significant single point of failure. SMEs should well understand that the process begins by establishing priorities. Here the difficult part is who going to drives the prioritization? Typically there are two main groups are drive the supply risk activities, functional risk groups within the organization, such as working with business or operational stakeholders ( such as, product related issues). The secondly the top management and communicate down through the organization by a senior executive. These both are important, perhaps there is yet another source for prioritizing is very often-overlooked in organizations in term of supply risk is the risk owners (Lynch, 2009).

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# The relationship between Supply Chain Resilience Elements and Organisational Performance: The Mediating Role of Supply Chain Ambidexterity

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## **Abstract**

**Purpose:** This paper aims to offer a theoretical explanation and justification of the relationship between Supply chain resilience elements, Supply chain ambidexterity and organisational performance. The authors find that Supply chain ambidexterity may be considered as a mediator in the relationship between Supply chain resilience elements and organisational performance. Therefore, this paper contributes theoretically to the author's understanding of the relationship between Supply chain ambidexterity and Supply chain resilience elements with regard to organisation performance.

**Design/methodology/approach:** In this conceptual paper, the review of research literature on Supply chain resilience, Elements of Supply chain resilience, Supply chain ambidexterity, Dynamic capabilities and Organisational performance is presented. Theoretical analysis is followed by theoretical propositions that should be subsequently tested empirically.

**Findings:** By emphasizing and considering Supply chain resilience elements and Supply chain ambidexterity related to organisational performance, this paper provides new perspectives on concepts' relationship. The theoretical findings described in this paper suggest that Supply chain ambidexterity plays a mediating role in the relationship between Supply chain resilience elements and organisational performance.

**Research limitations/implications:** Further research are required to develop Supply chain ambidexterity, Supply chain resilience elements and dynamic capabilities theory, focusing more on the relation to organisational performance. Additional testing is necessary to empirically validate the propositions given in this paper.

**Originality/value:** Based on theoretical findings, this paper clarifies the relationship between Supply chain resilience elements, Supply chain ambidexterity and organisational performance concepts. Theoretical findings described in this paper also determine the guidelines for further theoretical and empirical research within the fields.

**Keywords:** Supply Chain Ambidexterity, Supply Chain Resilience, Dynamic Capabilities, Organisational Performance

## **Introduction**

Business entities have gone through various distinctive phases in their journey of earnings logic and business portfolio past decade's especially manufacturing firms. Such as, the effective utilization of electricity in early years, later mass production and follow by Research and Development (R&D) activities and manufacturing. Now manufacturing companies are coping with changes either emphasis on proactivity or reactivity has become essence of management as per highlighted earlier by Chakravarthy (1982). Similarly, business entities required to align their ability and need to be efficient in managing current business demands, in the same time be adaptive to changes in the business environment has become more relevant to be survive their business portfolio and to be more attractive (Asif,2016).As we aware the global business environment has become highly and increasingly flux and dynamic, manufacturing companies face all kind of disturbances and risks which resulting along from Supply Chain (SC) (Lee and Rha,2016). With respect of the field of Supply Chain Management (SCM), this has been brought into full view, for example of through the 2010 Eyjafjallajokull volcano eruption in Iceland, the 2011 Tohoku earthquake in Japan and the 2011 Thailand Floods and Japanese earthquake and subsequent tsunami March,2011 caused significant losses of both people and property; the disaster also negatively affected global Supply chain. These "happening" inherently unstablised their business environment and find supply chains to experience the "age of turbulence" (Wieland and Wallenburg,2013). To overcome with such turbulences and the changes inherent in today's supply chain, great attention, both in practice and research, has been given to strategies to control, minimize and prevent supply chain risks (Kern et al.,2012;Sodhi et al.,2012).

The "resilience play vital role in the literature of SCRM (Knemeyer et al.,2009), but the term resilience still remains unexplored and ambigiuos and elusive. Moreover, achieving "resilience" still yet to be sufficiently well understood and still remain "gray area". Moreover, the ability of an organisation to return to its original state or move to new and more desirable state after being disturbed has been emerged as an essential topic within the domain of Supply chain resilience (SCR). One step forward, the both scholars and practitioners regards that organisational innovation as an imperative for minimizing "organisational risk". Through innovation, organisations can adapt to environmental change and mitigate the impact of threats and risks. "Ambidexterity" has emerged as an appropriate theoretical perspective for explaining innovation, organisational learning, and performance improvement in the field of Supply chain management. In order to successfully implement ambidextrous strategies over the long term, an organisation should acquire dynamic capability.

## **Literature Review**

### **Supply chain resilience**

The term "resilience" can be conceptualized in two main perspectives such as proactive capacity and reactive capacity (Valikanges,2010). The proactive approach referring to taking action before its final necessity and reactive approach emphasis on the recovering after any crisis take place. These both capabilities helps to "prevent or resist" being affected by disaster and return back to the original level of performance within the acceptable time period after being affected by disaster or any event. A supply chain can be resilient if its return to original stable situation or its can be sustain new and stable situation better than its original performance. In order to well understand and adapt to the change from unstable situation, active interaction with environment highly required to be either reactive or proactive. A reactive approach able to meet the changes of environment and react accordingly with business action, where by proactive approach helps to builds on projection and prevention of any environmental change take place (Wieland and Wallenburg, 2013).

The Supply chain resilience can handle and well manage unforeseeable disruption and events, this concept reflecting organisational capacity to survive, adapt and grow confronted with change and uncertainty (Knemeyer et al.,2009).In the same time supply chain resilience perceived as adaptive capability of supply chain to prepare for unseen and unexpected events, respond to distribution and recover and continuously run their operations at the desired level.Alas,according to Hohenstien et al.,(2015), the Supply chain resilience has become more popular, the concept to create Supply chain resilience are still perceived as ambiguous and lack of sufficient understanding and exploration. In particular, well founded, unified and common definition is currently lacking in the conceptualization of Supply chain resilience. There are inconsistent use of terminologies available in order to build Supply chain resilience for instance, antecedents, attributes, capabilities, elements and enhancers.

The term elements perceived and finalized to attain Supply chain resilience and its remain neutral based on the previous terms used in the literature (Hohenstien et al.,2015).The elements of Supply chain resilience categorized to two main group such as the elements which help to assess the level of Supply chain resilience readiness by anticipating and mitigating the impact of disturbances and secondly the elements revealed that response, recovery and growth. Around 36 Supply chain resilience elements were identified and the following elements are less focused in previous study, such as Inventory management, Visibility, Predefined Contingency Plan, SC (re) engineering and Diversification (Hohenstein et al.,2015;Scholten et al., 2014).

### **Inventory management**

Inventory management one of the Supply chain resilience element (Hohenstein et al.,2015). Alas very less study emphasis on the Inventory management as key contributor to the Supply chain resilience, managing inventory one of the key strategy of supply chain for the ex-ante disruption phase. By managing inventory by increasing and reducing at the pinch point helps in creation of resilience within supply chain (Baker,2007).Furthermore, Inventory management can be great method to access Supply chain readiness and helps to anticipating and mitigating the impact of supply disruptions. Working closely with suppliers to well manage the inventory level and establishing supply continuity plans will prevent shortage and over supply of inventory (Zsidisin and Wagner, 2010).

### **Visibility**

Visibility referring to create awareness and creating early warning indicators to identify and prevent turbulences (Blackhurst et al., 2011). Visibility perceived of the key enhancer of Supply chain resilience. Visibility well highlighted in previous research but still the contribution how its influence supply chain resilience still ambiguous (Caridi et al.,2010;Hohenstein et al.,2015).Visibility also referring to the extension of sharing information across supply chain activities.Sharing useful information across supply chain such as upstream and downstream will helps to reduce the negative effects in most effective way. The effective information sharing with supply chain partner will reduce internal and external supply chain related risks.

**Predefined contingency plan**

Predefined contingency plan emphasis on the communication protocols to reduce the mistakes and minimize the response time within supply chain pipeline (Zsidisin and Wagner, 2010; Blackhurst et al., 2011). Predefined contingency plan one of the key element of Supply chain resilience and very limited attention given in previous studies, this element more focus on controlling and improving the entire process of supply chain activities. Its perceived part of Supply chain complexity where related to the organisational decision making processes and playing vital role in continuously expanding supply chain strategy to control uncertainty in business environment (Manuj and Sahin, 2011).

**Supply chain (re) engineering**

Supply chain (re) engineering another key element of Supply chain resilience. Supply chain (re) engineering related to the overall process and stages of supply chain management and network. The key focus of Supply chain (re) engineering to emphasis on the core process and structure of supply chain activities and examine the value of added role of processes structure. To prevent disruption along the supply chain pipeline, all chain members required to have proper understanding of the network, by having proper knowledge on who owns what, as well as key measures that currently in place. By balancing efficiency of operation will helps the firm to increase the resilience capability faster (Scholten et al., 2014).

**Diversification**

Diversification another key element of Supply chain resilience, diversifying the potential risk and vulnerabilities perceived key focus of firms by resilience to sustain their business opportunity (Pereira et al., 2014). Similarly to redundancy approach emphasizing on the procurement strategy to sustain competitive advantage by focusing on multiple suppliers and supplier management. Integration procurement functions with other functional activity to increase visibility of the flows and more relevant decision-making. Procurement has become widely acceptable supply chain strategy which contributing greatly to the growth and competitiveness within an unstable environment.

**Organisational Performance**

Organisational Performance reflected in various factors, for instance according to Lenny et al (2007) highlighted that mostly organisations are more relying on two main criteria, such as Financial and Non-financial elements. Even the financial elements perceived mostly important to for any business organisation, but there are other key indicators which greatly influence on organisational innovation performance as well. Moreover, there are other key criteria to justify the performance of an organisation, such as effectiveness, efficiency, quality, productivity, innovation and profitability (Antony et al., 2010).

An organisational performance also can be measures through Supply chain management practices and performance (Lenny et al., 2007). The performance of Supply chain management become essentially helps to enhance high productivity and in the same time helps to reduce the inventory levels, lead time and quality of products. While Supply chain management become long term objective for manufacturers to improve and increase market share, market growth and integration of supply chain for chain members (Healy et al., 2014). The measures of Supply chain management related organisational performance adopted for this study are Quality products and Innovation, Cost leadership, Collaboration and Coordination.

Increasing profitability through high sales volume can be archive by emphasizing on the competitive supply chain can be efficiently and effectively utilize which leads to quality and innovation products. This will eventually capture increase high market share. The supply chain

practices become benchmarking for manufacturing firms to become leader of the emerging market and in the same time provide firms with opportunity to increase their sales volume. By increasing coordination and collaboration with supply chain members can be another criteria which helps to improve the organisational performance. Good coordination with internal departments such as increase integration between various departments internally, will help to reduce the departmental barriers and generate an organisation-wide plan. Proper coordination and collaboration with suppliers in upstream activities and forming close partnership with suppliers with helps to build more effective supplier relationships, by establishing product, process, and technology innovations could be better achieve. Increase in coordination and collaboration with customer will helps to negotiate and clarified jointly and close partnership will helps to sustain the confidents and trust.

### **Supply Chain Ambidexterity**

Ambidexterity in organizational context has emerged as an appropriate theoretical perspective for explaining innovation, organizational learning, and performance improvement in the field of Supply chain management (Lee and Rha, 2016). The meaning and definition of ambidexterity in current literature is clear but measuring it is not easy, as ambidexterity in several ways. The detailed analysis of the impact of Supply chain ambidexterity, two dimensions of ambidexterity is unexplored and should be further investigated in the context of dynamic capability. The ambidexterity in the context of Supply chain still unexplored and Supply chain ambidexterity as a dynamic capability helps to reduce the negative impact of SC vulnerability and SC instability has yet to be comprehensively explicated (Lee and Rha, 2016). Organizational ambidexterity refers to the ability of firms to simultaneously develop exploitation and of their current competences and exploration of new opportunities (Cao *et al.*, 2010; Raisch *et al.*, 2009). Exploitation focuses on utilizing existing resources and current competitive advantage, while exploration is aimed at searching for new resources and expanding markets. Exploitation includes refinement, choice, production, efficiency, selection, implementation, and execution; whereas exploration usually includes search, variation risk taking, experimentation, play, flexibility, discovery and innovation (March, 1991).

Exploration and exploitation have been and remain two of the most appealing concepts in management and organization studies and have served as the framework for numerous studies. Theoretically, the core of the debate on exploration and exploitation is built around two contrasting positions. First, the ambidexterity perspective claims that it is possible to simultaneously pursue exploitative and explorative targets through either a combination of organizational structures (Tushman and O'Reilly, 1996) or through contexts in which beliefs, processes, and systems sustain both (Gibson and Birkinshaw, 2004). Second, the trade-off perspective claims the necessity of balancing exploration and exploitation, which are otherwise irreconcilable (Gupta, Smith and Shalley, 2006), by alternating explorative and exploitative time periods. Notwithstanding the large number of contributions to both views, this literature does not constitute an organic body of knowledge where the two perspectives are confronted. Whether exploration and exploitation should be deployed at distinct times, as in a punctuated equilibrium (Burgelman, 2002), or whether they may be pursued simultaneously. Tushman and O'Reilly (1996), supports the latter view, and such combinations are mainly achieved through the coexistence of structures with different goals and orientations either within organizations or across them.

Exploitation as well perceived an important facet of organization learning and a necessary step in creating a successful business (Jurksiene and Pundziene, 2016). Many exploration activities eventually transform into exploitation exercises, as organizations build routines and repetitive and repetitive processes that allow for enhanced efficiency and productivity (Zollo & Winter, 2002). If organizations fail to leverage existing knowledge, then they may struggle to develop

core competencies. The notion of core competencies implies that firms must find what they excel at and exploit those areas. By understanding and appropriately applying extant knowledge, organizations further develop their core competencies, and in turn, enhance their performance (Peteraf,1993;Prahalad & Hamel,1990), As such, exploitative learning is vital to the health and well-being of organizations; it allows firms to concentrate on certain activities and refine them into lucrative proficiencies (Jurksiene and Pundziene,2016).

### **Mediating effect of Supply chain ambidexterity**

Recent literature identifies and reveals three approaches in the conceptualization and defining of the relationship between SC resilience and SC ambidexterity (Eltantawy,2016). First, the structural ambidexterity approach mainly focus on the organizational design containing separate structural units for exploration and exploitation (Benner and Tushman, 2003; Najafi.,Sharifi, and Ismail, 2014). For instance, upstream and downstream units, such as purchasing are more responsible for exploitation, while downstream units, such as marketing and sales, are responsible for exploration. This approach reflected the cycling between periods of exploration and exploitation is more viable than simulataneously pursuing both (Duncan, 1976).

Secondly, contextual ambidexterity, this approach suggests that SC ambidexterity developed from features of units or organizational context (Gibson and Birkinshaw, 2004).This approach focus on the practices required to enable effective trade-off of an entire organization, for instance, overall business practices may seem more applicable and sustainable compared to structural approach.

Thirdly, the ambidexterity approach, which viewed ambidexterity as a higher-order construct that manifests itself in the organization's or business unit's exploitative and explorative attainments (March,1991). This approach merely refers to methods, practices and processes to enhance to attain ambidexterity. This concept espoused in recent SC and operation management literature (Narasimhan and Narayanan, 2013).This approach suggested that ambidexterity is determined by the organization's or business unit's capacity to simultaneously demonstrate exploitation and exploration. In such case, a firm's that demonstrates high levels of exploitation and exploration performance goals is "ambidextrous", while low achievements on both ends is "balanced" but not ambidextrous.

Moreover, organisation focus on exploitation and exploration can further improve organisational performance. In the same time, organisation having exploitation and exploration capabilities may able to change fast. According to Junni et al.,(2013), ambidexterity in place promising with high performance by accommodating exploration and exploitation strategies. Based on sand cone model concludes that the sequentially, cumulatively building quality and delivery performance underpins flexibility in the same way that ambidexterity suggests the synergistic fusion of exploration and exploitation can drive to performance improvement (Jansen et al.,2009,Mom et al.,2007;Chandarsekaran et al.,2013;Junni et al,2013). In the same time, exploration and exploitation capabilities helps to increase knowledge and reduction of waste and it turn serves as the inputs for combinative capabilities development and the progression, in terms of its competitive capabilities.

The Supply chain resilience elements perceived as a dynamic capabilities which to be a fundamental concept. This concept embrace Supply chain ambidexterity as one of the integrated processes needed by organisations to adjust to highly dynamic business environments, this idea suggest that Supply chain ambidexterity becomes a part of dynamic capabilities, which helps to manage the demands of incremental and radical changes and ensuring the appropriate balance between exploratory and exploitative activities along supply chain process. As per mentioned by Teece (2014a) the ambidexterity can be considered as a "tailored version of dynamic capabilities", but there is possibility ambidexterity can be used in

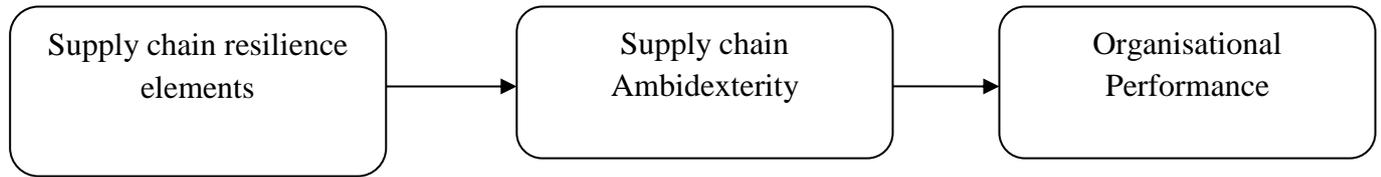
various theoretical contexts. The context of Supply chain, selected in this paper, offers insights. As ambidexterity is understood and perceived as an essential in the context of Supply chain management practices, the authors assume that Supply chain ambidexterity supplements dynamic capabilities with balancing capabilities, as well as balancing and optimizing processes. Moreover the authors also propose that Supply chain ambidexterity helps to strengthen the dynamic capabilities such as Supply chain resilience elements with an optimal balance between exploration and exploitation, thus helping to gain stronger and improving performance to be sustain and being long survival in the dynamic market.

### **Discussion and Conclusion**

This conceptual paper contributes to the research literature in many ways. Firstly, the literature findings shows that Supply chain resilience elements as a dynamic capabilities having direct and indirect impact on firms performance. This really supports the need to further explore elements that influence the relationship between Supply chain resilience and firm performance. Secondly, it was found that Supply chain ambidexterity, meaning simultaneous implementation of radical and incremental activities, is considered to help to contribute to firm performance and the sustainability of firm for long surviving. The outcome of this study revealed that although Supply chain ambidexterity is considered and contributing to firm sustainable performance, alas the empirical evidence to support this relationship is still lacking in the literature findings. This highlighted the contribution of Supply chain ambidexterity contributes to firm performance needs to explore further.

Thirdly, this paper clarifies and highlighted the relationship in between Supply chain resilience elements and Supply chain ambidexterity. This relationship still remains crucial and under exploration which needs for further theoretical development of the concepts. The theoretical findings reflected in this paper suggest that Supply chain ambidexterity plays a mediating role in the relationship between Supply chain resilience elements and organisational performance. This study basically just theoretically development concept, further development of the preposition is crucial and necessary. Further study highly required to empirically test the relationship between Supply chain resilience elements and Organisational performance, considering Supply chain ambidexterity as a mediator. Moreover, empirical research should be explore various types of ambidexterity and its effects in mediating or moderating the relationship between Supply chain resilience and organisational performance.

Based on the above discussion the following conceptual framework has been developed (Refer to Diagram 1.1). The Supply chain resilience elements and Supply chain ambidexterity perceived as dynamic capabilities which effect on the Organisational performance. The relationship between Supply chain resilience elements and Organisational performance well established under the conceptualization of dynamic capabilities and organisational performance. In the same time, there are relationship well established between Supply chain ambidexterity and Organisational performance. Moreover, the Supply chain ambidexterity perceived has having mediating effect between the relationship of Supply chain resilience elements and Organisational performance. This relationship based on the structural and contextual ambidexterity (O'Reilly and Tushman,2013). The Supply chain resilience elements having direct effect towards organisational performance and in the same time its can have indirect effect through Supply chain ambidexterity as well. The Supply chain ambidexterity plays a vital role in justifying the relationship between Supply chain resilience elements and organisational performance.

**Diagram 1 Proposed Research Framework****References**

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# A Study on Ethical Customer Management and Organizational Sustainability in Pharmaceutical Industry in Malaysia

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## **Abstract**

**Purpose:** Pharmaceutical industry is not just a commercial business, their products are about life and death, and improving our life quality. This paper aims to study the ethical issues in customer management and how it contributes to organizational sustainability in Malaysia pharmaceutical industry.

**Literature Findings:** The paper recognized 5 pillars; Direction, Posture, Organization, Behavior and Environment in DPOBE sustainability model and aligned them into ethical customer management in pharmaceutical which contribute positive impact towards organization sustainability in Malaysia.

**Research limitations/implications:** The findings of this paper serves as a guideline to pharmaceutical customer service agents in Malaysia Shared Service Centers

**Practical implications:** It emphasizes the importance of ethical customer management and its impact to organization sustainability.

**Originality/value:** Business ethics

**Keywords:** Ethical, Customer Management, Organizational Sustainability, Pharmaceutical Industry

## **Introduction**

Since the very first true antibiotic, penicillin was developed in 1940s; pharmaceutical industry has been developing rapidly to maintain a steady supply of life-saving medications and improving life quality (Yeoh, 1994) (Landmarks, 2017). According to PMLive and GlobalData, among the 20 top global sales pharmaceutical companies, majority are companies originated from United States and Europe (PMLive, 2017). As one of the most innovative and research-intensive industries in the United States, pharmaceutical firms are constantly facing pressures from the governments and stakeholders (Bunniran, McCaffrey, Bentley, & Bouldin, 2009). From a molecule concept or idea discovery, to experiments, research & development, clinical trials, to obtaining approval from FDA and finally marketing the new drugs to the public, it takes approximately 10 to 15 years (Pilon & Elias, 2015). While there are other factors that affect a patent duration, the common term of a new patent is 20 years from the date on which the application for the patent was filed in the United States, based on data published on FDA website (United States Food & Drug Administration, 2017). The cost to develop a new drug was estimated at \$802 million (Bunniran, McCaffrey, Bentley, & Bouldin, 2009) in year 2009.

However, the cost has increased enormously to approximately \$2.6 billion in 2015 (Pilon & Elias, 2015).

With expensive investment and long experiment duration needed on 1 medication, drug pricing is a global issue. In 2008, pharmaceutical expenditure in the European Union has recorded high at €180 billion (Kenneally & Walshe, 2012). The figure is about 17% of EU countries' total expenditure on health, on average. There are particular concerns about the growth of pharmaceutical research cost in Ireland and the government is continuously looking for policies towards economic sustainability and welfare of their peoples.

Over the year, health expenditure in Asian countries has increased along with economic growth in countries like Thailand and Malaysia. The demand for quality health care in public and private sectors has also increased (Teerawattananon, Tangcharoensathien, Tantivess, & Mills, 2003). Thailand national health expenditure in 1994 was 3.56% of GDP with 49% spent on public sector and 51% in private sector. In 1996, 63% of their health expenditure was recorded on private sector while public health sector had only consisted of 21%.

In Malaysia, approximately \$52 million was spent by the Government on drug purchases in year 1995 (Babar & Izham, 2009). After 10 years, the amount increased to \$ 235.6 million in 2005. In 2003, total health expenditure per capita was recorded at \$ 374 with 3.8% of GDP was allocated to health expenses. The pharmaceutical industry in Malaysia mainly focuses on formulation development and licensed manufacturing from multinational pharmaceutical companies. According to a report in 2004 by Malaysian Ministry of Health, a total of 5750 employees were hired in the local pharmaceutical industry, exporting drugs worth of \$ 128 million to over 30 countries. In year 2005, Malaysia pharmaceutical market was valued at \$350.7 million where 25% was exported (Babar & Izham, 2009).

World Health Organization (WHO) emphasized that continuous supply of medication to meet the needs of the present (Kenneally & Valerie, 2012) is crucial for the health and wellbeing of human being. With new diseases discovered and evolved every now and then, development of new vaccines has to be carried out in a faster speed and more effectively. These is only possible when the pharmaceutical industry is sustainable; as a result of ethical management with integrity and compliance, high control in product and service quality (Farooq, Salam, Fayoll, Jaafar, 2018).

In order to maintain an efficient and standardized customer management, some large pharmaceutical companies have invested in inter-organizational shared service centres (SSC) to promote cooperation across their boundaries (Fenema, Keers, & Zijim, 2014). With a standardized system such as SAP and Oracle, these shared service centres increase intra-organizational efficiencies as the business units are serviced by a common centre. SSC supports in business-to-consumer services such as orders processing, logistics arrangement, call centres, finance, supply chain management and the list go down. Some shared service centres are also involved in business-to-business services in HR, maintenance and R&D. SSC offers an integrated service module that improves operational efficiency, risk levels, reduces cost, and add values to the stakeholders.

According to a report by MSC Malaysia, there are 405 active global business service companies or SSC in Malaysia (MDEC, 2015). Based on the calculation, it was estimated that 86thousand jobs, to both local and foreign workers were created in this area. Utilizing the geographical and multilingual advantages we have in Malaysia, further emphasis is given by the Government to develop Malaysia into a regional hub for cloud and content services. Currently, some of the pharmaceutical and bio-health companies that had established their SSC in Malaysia include Lilly, Amway, and AstraZeneca. The latest SSC launching in Malaysia was made by Roche in year 2016. Malaysia is the first ASEAN country selected by Roche to operate their Global Shared Service Centre which will servicing 15 affiliates across Asia Pacific region (MIDA, 2016).

**Research Problem**

According to Hefner, the customer experience is managed in 3 stages; Customer Information Points, Customer Point of Sale and Customer Service Points (Hefner, Eva-Maria, Mit, 2010). It starts before the purchase, where information on the drugs is obtained from advertisement or sales promotion. It then continues to during the point of sales; both online and offline. Finally, it is the after-sales-service by the customer care (Scherpen, Draghici, Niemann, 2018). Product and service quality provided by the pharmaceutical during these 3 stages affects customers' satisfaction towards the brand. Among the 10 dimensions of service quality developed by Parasuraman (1985), reliability, responsiveness, communication, credibility and courtesy are some of the key dimensions measured (Farooq, Salam, Fayoll, Jaafar, 2018). A long-term successful customer management requires the pharmaceutical firms to acknowledge any privacy and trust issue, and impact of consumer privacy exploitation towards their brand image (NguyenBang, 2012)

With patients' health record, drug purchase history, pharmacy wholesalers' purchase record and other customer information being handled and processed by a third party system or third party vendor, it brings up the concern about ethics and compliances in handling this sensitive information. Digitalization brought challenges (Scherpen, Draghici, Niemann, 2018) to pharmaceutical industry because now pharmacy wholesalers (direct customers of pharmaceutical companies) maintain their account and purchase online, while the appointed third party vendors manage the orders, account and finance information, supply chain management and other transactions through their system.

In Sweden healthcare industry, a shared Electronic Medical Record (EMR) is used to improve communication between patients or consumers with primary and secondary medical care providers. Based on the focus group discussion done by Tully and his team on EMR (Tully, et al., 2013), since the patients' data is created by several doctors and pharmacist, and then shared in the electronics system, it is easily accessed by all. Explicit consent is supposed to be obtained from the patients before viewing this sensitive information. However, most participants in the discussion group admitted that consent is only obtained occasionally (Tully, et al., 2013).

As a highly regulated industry, pharmaceutical companies are always bind to compliances and regulations. Unethical way of handling company sensitive data and customers' private information will lead to serious legal penalties and jeopardize the image of the pharmaceutical company. In 2014, the cost to create and bring a new medicine to market, from starting with a concept, experiments, R&D, to have it market to the public, is approximately USD\$2.6billion (Pilon & Elias, 2015). New medicine molecule data, technology-based reports, experiments records and the like are intellectual property (IP) to pharmaceutical firms (Ghauri & Rao, 2009). If this IP is disclosed or stolen, the effort and resources poured in by the company will be wasted. Also, advising incorrect information about the drug and promoting an off-label indication which is not approved in the country is a serious offense. Products and services produced by pharmaceutical companies is matter of life and death to their consumers. Hence, integrity is a mandatory value in healthcare industry, no matter which stage in their value chain.

**Research Question**

What are the ethical customer management on Organizational Sustainability in pharmaceutical industry in Malaysia?

**LITERATURE REVIEW****Development of Pharmaceutical Industry**

History written shows that human started to make medicine from plants, animals, or minerals during the early Chinese, Hindu, and Mediterranean civilizations (DaileyJohn, 2016). In 1928, the first antibiotic; penicillin was discovered by Alexander Fleming in London. It had

successfully reduced a great number of death from infection. Before the discovery of penicillin, hospitals did not have effective treatments for patients with blood poisoning, infections of pneumonia and rheumatic fever (The Alenxander Fleming Labortory Museum, London, UK, 1999).

After the discovery in 1928, a research team from Oxford University continued to develop Fleming's idea with a serial of animal experiments and clinical trials. After much research and testing, they managed to produce penicillin into a life-saving drug. The Oxford lab was turned into an antibiotic factory where the drug production was carried out (The Alenxander Fleming Labortory Museum, London, UK, 1999). However, it was a difficult time for them in United Kingdom due to the war time condition back in 1940s. The Oxford team travelled to United States in 1941 and they collaborated with Yale physiologists where they continued to develop and improve penicillin production.

In United States, pharmaceutical and chemical companies such as Merck, Pfizer, Squibb and other companies took part in the development of penicillin where they were facing challenges to scale-up the production. By the time, penicillin was a life-saving treatment of various infections in treating the military during war. With the effort from universities, pharmaceutical and chemical companies, new technologies were invented and penicillin production increased dramatically since early 1944. The drug production in United States increased from 1,663 billion units in 1944, to 133,229 billion units by 1949. Thanks to the technologies, penicillin price had decreased from 20 dollars per 100,000 units in 1943, to less than 10 cents by 1949 (The Alenxander Fleming Labortory Museum, London, UK, 1999).

Over the years, we witnessed various diseases outbreaks such as SARS and H1N1. Some of these viruses evolved and changed over the time. Hence, pharmaceutical is one of the fast developing and most innovative industries to cure diseases and maintain our health. Pharmaceutical companies continuously develop better vaccines and discover new treatments for chronic illness such as cancers, heart disease, and diabetes. Due to change of lifestyle in this globalization era, mental health issues is the new focus nowadays. Pharmaceutical companies like Lilly and Pfizer continuously developing medicines to treat depression, anxiety disorder, schizophrenia and so on.

Pharmaceutical industry is about improving living quality and saving lives. Since their products are crucial to patients, every single process in the pharmaceutical industry must be controlled and monitored strictly and aligned with ethics and compliances. Pharmaceutical markets are complex in many aspects. It involves rules and regulation, government policies and market demand in different countries and regions of the world (A CBO Study, 2006).

Based on study done by National Science Foundation (NSF), pharmaceuticals in United States invested up to USD 5.5billion in research and development of medicine back in year 1980. The amount had then increased tremendously to USD 17billion in 2003 (A CBO Study, 2006). For an innovative new drug, it takes average USD 800million of cost and average 12 years of time to discover, experiment, research and develop a drug molecule that might save millions of precious lives. The cost of research and development has increased in recent years as big pharmaceutical companies are seen to shift their focus to more chronic and degenerative diseases (A CBO Study, 2006).

With such expensive cost and huge impact to the patients, ethics and compliance is important. Violation in any process of the value chain will definitely bring severe and expensive consequences for a pharmaceutical company.

### **Organizational Sustainability**

With the rapid technology invention and development, globalization is accelerating. Obvious changes can be observed in how corporates nowadays are operating their economic, social and environmental processes (Dahl, 2012). In order to survive the rapid changes, organizations now

focus on policies to sustain their business. Several indicators were designed internationally for measuring and reporting, mainly emphasized on environmental issue and sustainable development. The current environmental indicators include Environmental Vulnerability Index, Environmental Sustainability Index and Ecological Footprint (Dahl, 2012). Publish of annual environmental information was made mandatory for some European countries like Denmark and Norway (Moore & Julie, 2008).

In healthcare and pharmaceutical industry, organization is sustainable when the development meets the present needs without affecting the capability of next generation to meet their own needs (Jamaludin, Habidin, Shazali, Ali, & Khaidir, 2013). Besides legislative and stakeholder pressure (Moore & Julie, 2008), pharmaceutical industry is a more sensitive industry because its products are to improving life quality and saving human life. Hence, in order for a pharmaceutical firm to stay sustainable in the market, ethics is indeed an important element in their daily operation. Appropriate sustainability indicators on ethical operation guide and assist the pharmaceutical firm to stay competitive in the market and to be able to continuously play their noble roles to human life quality.

In a study done by Moore and Julie, majority companies admitted that their sustainability reporting was conducted due to external drivers; pressure by the legislation and stakeholders (Moore & Julie, 2008). Some European countries like Denmark, Norway and France even mandate the publishing of corporate environment report annually. There are urge from the public that instead of economic goals, corporates should put more focus on social and environmental goals. During the 2002 World Summit on Sustainable Development held in Johannesburg, importance of ethics in sustainable development was emphasized again by United Nations (Dahl, 2012). For the past years, United Nations have launched several programs such as the Decade of Education for Sustainable Development (2005-2014) and indicators as an effort towards sustainable development. However, there are worries that these indicators and programs are still not enough to change government decision-making and cooperates' behavior (Dahl, 2012).

Sustainability indicators are designed to serve as a powerful tool and solid base for management in decision-making with below five main purposes (Waas, et al., 2014). First of all, it provides structured meaningful information and data to management in decision-making. Next, it operationalizes sustainable development and provides clear and solid guidelines. Thirdly, sustainability indicators educate and facilitate social learning by changing the society mindset in making decisions. Also, the indicators can be utilized to potrait the firms' accountability and transparency to the public. Lastly, it identifies any knowledge and data gaps and proposes priorities for firms to tackle these gaps internally and externally (Waas, et al., 2014). Sustainability serves an indicator in decicion-make strategy to ensure the rational process connects stakeholders' interest with company values, ideology, knowledge and experience, considering various socio-environmental contexts.

The International Association for Impact Assessment defines impact assessment as a process taken by organizations to identify future consequences of a current or proposed action (Waas, et al., 2014). Sustainability assessment is widely used for environmental impact assessment, strategic environmental assessment, health impact assessment and risk assessment. Objectives of these assessments include providing a better interpretation and understanding on sustainability in multi-criteria, and enhance the data management transparency. It is also a information structuring and supporting tools in decision-making process to avoid any irreversible risks, ensure effective communications, be responsive to changes and uncertainties. Sustainability assessment encourages sustainability objectives in organizations with broad participation from all stakeholders and experts, and stimulates continuous learning and process improvement (Waas, et al., 2014).

Based on World Health Organization definition about sustainability, doing the right things now lead the organization to a long-term value creation that benefit the consumers and organization. Sustainability in pharmaceutical industry involves developing economic growth through research and innovation to achieving competitive advantages, at the same time sustaining corporate reputation, customer relationships, products and services quality (Shen, Tam, Tam, Ji, 2010) (Szekely & Knirsch, 2005). Pharmaceutical companies like Bristol-Myers Squibb define and pledge sustainability in conducting their business by contributing to economic growth, social responsibilities and a healthy environment, besides curing serious diseases in patients (Min, Desmoulins-LebeaultFrancois , EspositoMark , 2017). In Baxter, sustainability is long-term approach to include social, economic and environmental responsibilities among their business priorities. Nova Nordisk is also aligned with the sustainability concept where they believed that fundamental to a long-term business achievement is a healthy economy, environment and society (Min , Desmoulins-LebeaultFrancois , EspositoMark , 2017).

### **Ethical Customer Management**

Since pharmaceutical is a highly regulated industry, ethics and compliances are essential to ensure correct products with the accurate information are delivered to the patients, and directly sustain the business. DPOBE Model for Organizational Sustainability (Santos, Anunciação, & Svirina, 2013) is utilized to measure pharmaceutical organizational sustainability. There are 5 dimensions or pillars emphasized in this model; Direction, Posture, Organization, Behavior and Environment. These dimensions fit perfectly in determining sustainability for pharmaceutical industry.

### **Direction**

The 1<sup>st</sup> pillar in DPOBE model is Direction. A corporation's sustainability and long-run prosperity are heavily related to welfare of various stakeholders which inclusive of employees, suppliers and customers (Min , Desmoulins-LebeaultFrancois , EspositoMark , 2017). It is not limited only to stakeholder groups who own stake or have claim on the firms. To gain sustainability through ethical customer management, it starts from its mission and vision, what does management facilitate and consider as a permanent way to run the business (Santos, Anunciação, & Svirina, 2013).

Four levels of possible industrial design into sustainability are identified as environmental redesign, new and sustainable products and services, new production-consumption systems with sustainable satisfaction of need and desires, and lastly, creating new scenarios for sustainable lifestyles (Küçüksayraç, 2015). Pharmaceutical company strategies generally are adopted and designed to achieve sustainability through corporate initiatives based on external drivers; government regulations and market demand, and internal drivers; creating opportunities for product innovation and improve product quality (Küçüksayraç, 2015).

Johnson & Johnson is committed to their social contract obligations and uphold ethical values towards the communities with sustainability practices (Turcsanyi & Sisaye, 2013). Eli Lilly committed to 'make medicines that help people live longer, healthier, more active lives', 'make a significant contribution to humanity' with their core values; integrity, excellence and respect for people (Eli Lilly, 2017). Ethical customer management is a manner where pharmaceutical firms handle their operation to positively impact the society, building positive reputation and gaining trust from their customers (Min , Desmoulins-LebeaultFrancois , EspositoMark , 2017). According to Lega's study, leadership's characteristic and involvement contribute to organizational culture, values and goals. The company culture and strategy depend on management's decision and priority. Managers can motivate the ethical values (Lega, Prenestini, & Spurgeon, 2013) and continuously building the awareness of these values as an important aspect toward sustainability (Dahl, 2012). Strategy and effort of a pharmaceutical

firm on sustainability can also be determined by hiring and retaining high-quality staffs who aligned with the company mission and vision in ethical customer management (Turcsanyi & Sisaye, 2013).

### **Posture**

The Posture aspect measures the customer service agents' understanding on the business process, their roles and responsibilities. It is importance for the customer service agents to understand the protocol; a set of rules that govern the interaction of concurrent processes in distribution systems, in every business process they deal with every day (Huang, Huang, Chen , 2009). In the study by Huang and the team, order management protocol modules are classified into four categories; order, response, confirmation and others. It emphasized the appropriate handling of order information to ensure accuracy in order processing, proper response manner, efficient communication with both upstream suppliers and customers, and other transaction carried out daily or on ad-hoc basis.

Daily operation in pharmaceutical SSC also includes providing customer services via call center, helpdesk portals and emails (Harritz , 2016), for any inquiries and complaints. In the 2nd pillar, Posture, we are measuring the ethical principles and conduct codes implemented to the processes (Code of Conduct, 2017) (Esteves, Santos , & Anunciacao, 2012). This is important to ensure the sensitive and confidential information is handled in a proper manner without violating any regulation. It contributes positive impact towards the organizations accountability and reliability, and customers feel their privacy is respected (Santos, Anunciação, & Svirina, 2013).

According to the Code of Conduct by Malaysia Pharmaceutical Society, an unqualified practitioner shall not engage himself publicly in the running of the business of a body corporate in such a manner as to throw doubt upon the status of the superintendent or other pharmacists in such body corporate (Code of Conduct, 2017). Hence, for any inquiry or complaint related to product information; indication, dosage and etc. should be redirected to a qualified person in charge or escalated to Quality personnel of the pharmaceutical firms. If the agent is not confident in handling certain inquiry, he should consult with qualified personnel in the organization before making high-risk decisions which might endanger the patient's life and affect company reputation (Strategic Direction, 2010). Long-term high performances and sustainability depend on both internal and external relationship building which should base on trust, transparency (Benn , Dunphy , & Griffiths , 2006) and integrity.

Drug safety is a serious issue in pharmaceutical industry and 114 cases were identified in 2005 (Sillup & Porth, 2008). Based on research by Abud-Mendoza in 2012, an annual cost of USD\$ 1.5million incurred due to persistence and prevalence of adverse events reported to the Institute of Medicine (Abud-Mendoza , 2012). Adverse events include any informed and uninformed side effects, even death caused by the drug consumption. Since it is a serious matter, all pharmaceutical CS agents should be aware of the procedure in handling such complaints and inquiries.

### **Organization**

In pharmaceutical Shared Service Center (SSC) or the new term used in Malaysia; Global Business Services (GBS), there is no direct physical interaction with the customers. Customer service agents liaise with the customers; patients, consumers and pharmacies via online retail environment and call centers (Perepelkin & Zhang , 2011). In this context, trust and brand reputation is one of the key elements to build long-term successful customer relationship. Corporate brand personality that promotes integrity and ethics is a powerful corporate competitive advantage to ensure organization sustainability in pharmaceutical industry.

Comprehensive and clear boundaries is to be defined in the goals of reaching sustainability objectives in pharmaceutical organization (Fenema, Keers, & Zijim, 2014). This includes clear segregation of roles and responsibilities in GBS especially in Information System Management. All intellectual properties and customer information is collected and stored in cloud platform. Since data is one of the most valuable assets in a firm, effective enterprise customer management system allows coordination and integration of useful data from different channel sources, and enhance the customer experiences (NguyenBang, 2012). Access into different types of information is to be controlled according to the 'right' and 'authority'. It is to protect and ensure sensitive data from mishandling and unintentional data disclosure. If there is information and data to be shared with external business partner, a controlled private cloud should be operated and access opened solely to authorized personnel in the business partners (Laudon & Laudon, 2016).

Pharmaceutical MNC like Johnson & Johnson and Lilly pledged to conduct their business in the most noble and highest values. This business policy or strategy is to be clearly conveyed and adapted across all subsidiaries and global business service centers (Kidger , 2002). High quality customer relationship management in pharmaceutical contributes to high customer satisfaction. As part of the knowledge management system, intellectual capital such as knowledge, information, best practices based on previous experiences should be utilized by the local GBS to create competitive advantage (Mehralian , Nazari, Akhavan, & Rasekh, 2014). Healthcare regulation might differ in different countries and all business partners should be trained to comply with the headquarter mission and vision. Hence, knowledge transfer in MNC should be multidirectional to benefit headquarter, subsidiaries and all business partners such as local logistic service providers (Kidger , 2002).

Managers should implement a proper method to boost IC within the customer service department by providing complete training and education to strengthen employees' professional knowledge and skills. Employees learn to appreciate ethical customer management and ethics code of conduct if they are trained on the logic and impact towards organizational sustainability (Kidger , 2002).

### **Behavior**

Sustainability in pharmaceutical firms is strongly connected with the organization quality control in industry value chain; both primary and support activities (Laudon & Laudon, 2016). Erturgut and Soysekerici defined Total Quality Management as an approach organizations used to meet customers' requirement and expectations, by implementing Quantitative methods on the organizational processes, service and products to sustain product development (Erturgut & Soysekerici , 2009). This measures all activities to insure service quality with strict quality control on efficiency and effectiveness (Ritchter & Bruhl , 2017). Performance risk and error is to be monitored and minimized through output and behavior control. In pharmaceutical customer management, it requires agents to be aware of the sensitivity of customer information, accuracy and timeliness in order processing to ensure customers receive the drug delivery in time with correct products and quantity (Santos, Anunciação, & Svirina, 2013).

Under Johnson & Johnson policy, customers are protected by the firm's accountability to produce high-quality drugs and if there is any issue where the quality is compromised, product recall will be carried out and Johnson & Johnson committed to their best to rectify the issues (Turcsanyi & Sisaye, 2013). Such actions from Johnson & Johnson encourages the customers to have confident, knowing that the firm will always act ethically contribute a positive impact towards their financial performance. Professional and ethical employee behavior; integrity, accountability and honesty allows the firm the manage their reputation and building a healthy and positive customer relationship system based on trust and loyalty, that in return enhance organizational sustainability in this competitive and fast changing industry.

Effective and efficient implementation of operational customer management, especially in IT-related processing enables a pharmaceutical firm focus on analytical customer management, strategic planning on building positive customer relationship, generate customer value and enhance shareholder value for the firm (Nguyen Bang, 2012). It gives confidence to the customers, and as trust increases commitment and encourages customers to invest in a long-term relationships with the pharmaceutical company.

### **Evaluation**

Corporate Social Responsibility (CSR) is a concept on how the business activities are carried out continuously in terms of social value; ethically, responsibly and transparently. Pharmaceutical industry is growing their interest in CSR reporting disclosure. Based on a report done by KPMG in 2011 (one of the Big Four accounting firms) on the 100 largest pharmaceutical companies in 34 countries, CSR reporting has obviously doubled since their last survey in 2008 (Azim & Azam , 2013). In a study on managerial perception of 100 companies in Malaysia, aspect on products and services to customers was actively reported in their social reporting. According to Azim and Azam, one of the major reasons on CSR reporting are corporate accountability to the society and in turn, sustain the company development.

Building awareness of these social values improves corporate image and reputation. A multilevel sustainability indicator is a supporting tool towards organizational sustainability (DahlLyon, 2012). Key performance Indicator (KPI) is implemented in the customer service agents to measure the order processing accuracy and timeliness. It is a standard to ensure customers' requirement on the drug purchases are managed and processed correctly and without delay. Besides individual monitoring, Executive Support System (ESS) such as performances metrics and governance system (FenemaPaul, KeersBianca, ZijimHenk, 2014) within the customer service department allows management to analyze department's performances and evaluate customer satisfaction level (LaudonKenneth & LaudonJane P., 2016). Based on the data generated, it assists management to identify any ethical gap or under satisfaction in customer management and work out on solutions to overcome this gap immediately. Customer satisfaction is a concept where the business must satisfy its customers in ensuring a long-term relationship, which contribute in the business sustainability and profitability (Farooq, Salam, Fayoll, Jaafar, 2018).

It is also highly recommended that pharmaceutical companies obtain external review on their performances and control system. European and United States companies obtained external review from appointed auditors annually to analyze and evaluate the organization performances and strategies (MooreSharon & JulieJie Wen , 2008). Both internal and external audit serve as a measurement tools for Malaysia pharmaceutical SSC to evaluate performances and monitor the organizational efficiency and effectiveness (SantosJoão, AnunciaçãoPedro Fernandes , SvirinaAnna, 2013).

### Conceptual Framework

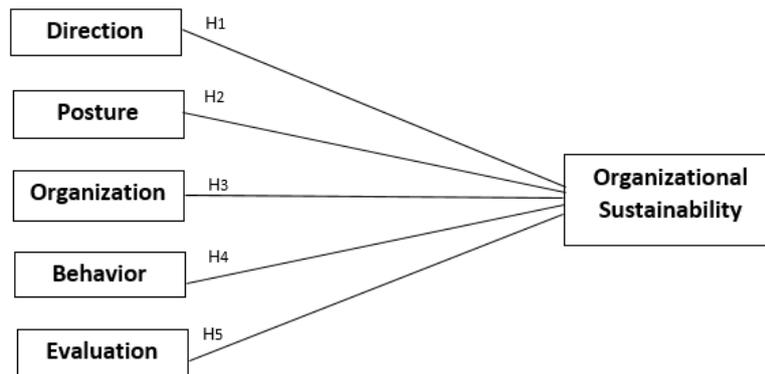


Figure 2: Conceptual framework of the research

These conceptual framework portrays the factors of organizational sustainability in Malaysia pharmaceutical industry. There is a positive impact of company Direction, Posture, Organization, Behavior and Evaluation system towards the organizational sustainability.

### Conclusion & Implication

The relationship between organizational sustainability in Malaysia pharmaceutical industry ethical customer management is studied by implementing in DPOBE model. Based on literature review conducted on sustainability and pharmaceutical industry, ethical customer management is only possible when the company has strong sense on compliance and understand the impact of their business processes towards the life quality of their consumers. Ethical code of conduct and integrity is essential in every customer service agent to ensure high quality of service to their customers and to protect the customers' privacy. Organizational culture, systematic knowledge management system and information system ensure CS agents are equipped and well prepared to handle sensitive information from the customers. Organizations that strike for high service quality will make sure their customers get efficient and effective services from the CS agents. And lastly, organizational sustainability also depends on KPI, multidimensional indicator and audit to be put in place as evaluation and measurement tools.

With more pharmaceutical multinational corporations investing in Malaysia for global business services, it is important that the ethical customer management policy is implemented and emphasized locally. Mishandling of customers' sensitive information can be a very serious offence and it might jeopardize the reputation of the pharmaceutical company. In a more severe situation, a patient's life quality will be affected. Comprehensive conduct code and guidelines to the local global business services is mandatory to maintain the service quality and sustain the pharmaceutical shared service centers industry in Malaysia.

Pharmaceutical industry carries a noble responsibility to improve human life quality. As highlighted in literature review, it is believed that ethical customer management in customer service contributes to positive brand image and eventually leads to organizational sustainability.

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# The Association between Ethical Customer Management and Organizational Sustainability in Pharmaceutical Industry in Malaysia

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## Abstract

**Purpose:** Pharmaceutical industry is not just a commercial business, their products are about life and death, and improving our life quality. This paper aims to study the ethical issues in customer management and how it contributes to organizational sustainability in Malaysia pharmaceutical industry.

**Design/methodology/approach:** A quantitative research designed to collect primary data from questionnaire and secondary data from journal and articles focused on ethical customer management and pharmaceutical sustainability.

**Findings:** The paper recognized 5 pillars; Direction, Posture, Organization, Behavior and Environment in DPOBE sustainability model and aligned them into ethical customer management in pharmaceutical which contribute positive impact towards organization sustainability in Malaysia.

**Research limitations/implications:** The findings of this paper serves as a guideline to pharmaceutical customer service agents in Malaysia Shared Service Centers

**Practical implications:** It emphasizes the importance of ethical customer management and its impact to organization sustainability.

**Originality/value:** Business ethics

**Keywords:** Ethical, Customer Management, Organizational Sustainability, Pharmaceutical Industry

## Introduction

Pharmaceutical industry is about improving living quality and saving lives. Since their products are crucial to patients, every single process in the pharmaceutical industry must be controlled and monitored strictly and aligned with ethics and compliances. Pharmaceutical markets are complex in many aspects. It involves rules and regulation, government policies and market demand in different countries and regions of the world (A CBO Study, 2006). As one of the most innovative and research-intensive industries, pharmaceutical companies take approximately 10 to 15 years from a molecule concept or idea discovery, to experiments, research & development, clinical trials, to obtaining approval from FDA and finally marketing the new drugs to the public (Pilon & Elias, 2015). And, the cost to develop a new drug was estimated at \$802 million (Bunniran, McCaffrey, Bentley, & Bouldin, 2009) in year 2009.

However, it has increased enormously to approximately \$2.6 billion in 2015 (Pilon & Elias, 2015).

World Health Organization (WHO) emphasized that continuous supply of medication to meet the needs of the present (Kenneally & Valerie, 2012) is crucial for the health and wellbeing of human being. With new deceases discovered and evolved every now and then, development of new vaccines has to be carried out in a faster speed and more effectively. These is only possible when the pharmaceutical industry is sustainable; as a result of ethical management with integrity and compliance, high control in product and service quality (Farooq, Salam, Fayoll, Jaafar, 2018).

With patients' health record, drug purchase history, pharmacy wholesalers' purchase record and other customer information being handled and processed by a third party system or third party vendor, it brings up the concern about ethics and compliances in handling this sensitive information. Unethical way of handling company sensitive data and customers' private information will lead to serious legal penalties and jeopardize the image of the pharmaceutical company. In 2012, Emory Healthcare Inc. in Georgia reported that some computers and mobile devices containing patient social security numbers for about 315,000 surgical patients were stolen (Thomson, 2017). Digitalization brought challenges (Scherpen, Draghici, Niemann, 2018) to pharmaceutical industry because now pharmacy wholesalers (direct customers of pharmaceutical companies) maintain their account and purchase online, while the appointed third party vendors manage the orders, account and finance information, supply chain management and other transactions through their system.

Brand reliability and integrity is crucial in pharmaceutical industry and ethical customer management begins even before the sales and consumption. During the Customer Information Points (Scherpen, Draghici, Niemann, 2018), only correct and approved information should be advertised and promoted to the public. Drug makers face risk in customer retention (Farooq, Salam, Fayoll, Jaafar, 2018) if the trust and confidence on the brands is no longer exist. In 2012, the British pharmaceutical company GlaxoSmithKline (GSK) was reported to plead guilty and paid \$3 billion penalty for promoting their best-selling antidepressants for unapproved off-label indications and failing to report safety data about a top diabetes drug. The agreement also included civil penalties for improper marketing of a half-dozen other drugs manufactured by GSK. It was one of the largest settlements ever happened in pharmaceutical industry (The New York Times, 2012). Another billion-dollar lawsuit was reported happened to Pfizer in 2009 for \$2.3 billion when the drug-maker promoted some of their drugs for off-labelled usages which was not approved by Food and Drug Administration (FDA) (Forbes, 2009).

## **Literature Review**

### **Organizational Sustainability**

In healthcare and pharmaceutical industry, organization is sustainable when the development meets the present needs without affecting the capability of next generation to meet their own needs (Jamaludin, Habidin, Shazali, Ali, & Khaidir, 2013). In order for a pharmaceutical firm to stay sustainable in the market, ethics is indeed an important element in their daily operation. Appropriate sustainability indicators on ethical operation guide and assist the pharmaceutical firm to stay competitive in the market and to be able to continuously play their noble roles to human life quality.

Based on World Health Organization definition about sustainability, doing the right things now lead the organization to a long-term value creation that benefit the consumers and organization. Sustainability in pharmaceutical industry involves developing economic growth through research and innovation to achieving competitive advantages, at the same time sustaining corporate reputation, customer relationships, products and services quality (Shen, Tam, Tam, Ji, 2010) (Szekely & Knirsch, 2005). Pharmaceutical companies like Bristol-Myers Squibb

define and pledge sustainability in conducting their business by contributing to economic growth, social responsibilities and a healthy environment, besides curing serious diseases in patients (Min, Desmoulins-LebeaultFrancois , EspositoMark , 2017). In Baxter, sustainability is long-term approach to include social, economic and environmental responsibilities among their business priorities. Nova Nordisk is also aligned with the sustainability concept where they believed that fundamental to a long-term business achievement is a healthy economy, environment and society (Min , Desmoulins-LebeaultFrancois , EspositoMark , 2017).

### **Ethical Customer Management**

Since pharmaceutical is a highly regulated industry, ethics and compliances are essential to ensure correct products with the accurate information are delivered to the patients, and directly sustain the business. DPOBE Model for Organizational Sustainability (Santos, Anunciação, & Svirina, 2013) is utilized to measure pharmaceutical organizational sustainability. There are 5 dimensions or pillars emphasized in this model; Direction, Posture, Organization, Behavior and Environment.

#### **Direction**

The 1<sup>st</sup> pillar in DPOBE model is Direction. To gain sustainability through ethical customer management, it starts from its mission and vision, what does management facilitate and consider as a permanent way to run the business (Santos, Anunciação, & Svirina, 2013). Pharmaceutical company strategies generally are adopted and designed to achieve sustainability through corporate initiatives based on external drivers; government regulations and market demand, and internal drivers; creating opportunities for product innovation and improve product quality (Küçüksayraç, 2015).

Johnson & Johnson is committed to their social contract obligations and uphold ethical values towards the communities with sustainability practices (Turcsanyi & Sisaye, 2013). Eli Lilly committed to ‘make medicines that help people live longer, healthier, more active lives’, ‘make a significant contribution to humanity’ with their core values; integrity, excellence and respect for people (Eli Lilly, 2017). Ethical customer management is a manner where pharmaceutical firms handle their operation to positively impact the society, building positive reputation and gaining trust from their customers (Min , Desmoulins-LebeaultFrancois , EspositoMark , 2017). According to Lega’s study, leadership’s characteristic and involvement contribute to organizational culture, values and goals. The company culture and strategy depend on management’s decision and priority. Managers can motivate the ethical values (Lega, Prenestini, & Spurgeon, 2013) and continuously building the awareness of these values as an important aspect toward sustainability (Dahl, 2012). Strategy and effort of a pharmaceutical firm on sustainability can also be determined by hiring and retaining high-quality staffs who aligned with the company mission and vision in ethical customer management (Turcsanyi & Sisaye, 2013).

#### **Posture**

The Posture aspect measures the customer service agents’ understanding on the business process, their roles and responsibilities. In the study by Huang and the team, order management protocol modules are classified into four categories; order, response, confirmation and others. It emphasized the appropriate handling of order information to ensure accuracy in order processing, proper response manner, efficient communication with both upstream suppliers and customers, and other transaction carried out daily or on ad-hoc basis.

Daily operation in pharmaceutical SSC also includes providing customer services via call center, helpdesk portals and emails (Harritz , 2016), for any inquiries and complaints. In the 2<sup>nd</sup> pillar, Posture, we are measuring the ethical principles and conduct codes implemented to the

processes (Code of Conduct, 2017) (Esteves, Santos , & Anunciacao, 2012). This is important to ensure the sensitive and confidential information is handled in a proper manner without violating any regulation. It contributes positive impact towards the organizations accountability and reliability, and customers feel their privacy is respected (Santos, Anunciação, & Svirina, 2013).

According to the Code of Conduct by Malaysia Pharmaceutical Society, an unqualified practitioner shall not engage himself publicly in the running of the business of a body corporate in such a manner as to throw doubt upon the status of the superintendent or other pharmacists in such body corporate (Code of Conduct, 2017). Hence, for any inquiry or complaint related to product information; indication, dosage and etc. should be redirected to a qualified person in charge or escalated to Quality personnel of the pharmaceutical firms. If the agent is not confident in handling certain inquiry, he should consult with qualified personnel in the organization before making high-risk decisions which might endanger the patient's life and affect company reputation (Strategic Direction, 2010). Long-term high performances and sustainability depend on both internal and external relationship building which should base on trust, transparency (Benn , Dunphy , & Griffiths , 2006) and integrity.

Based on research by Abud-Mendoza in 2012, an annual cost of USD\$ 1.5million incurred due to persistence and prevalence of adverse events reported to the Institute of Medicine (Abud-Mendoza , 2012). Adverse events include any informed and uninformed side effects, even death caused by the drug consumption. Since it is a serious matter, all pharmaceutical CS agents should be aware of the procedure in handling such complaints and inquiries.

### **Organization**

In pharmaceutical Shared Service Center (SSC) or the new term used in Malaysia; Global Business Services (GBS), there is no direct physical interaction with the customers. Customer service agents liaise with the customers; patients, consumers and pharmacies via online retail environment and call centers (Perepelkin & Zhang , 2011). In this context, trust and brand reputation is one of the key elements to build long-term successful customer relationship. Corporate brand personality that promotes integrity and ethics is a powerful corporate competitive advantage to ensure organization sustainability in pharmaceutical industry.

Comprehensive and clear boundaries is to be defined in the goals of reaching sustainability objectives in pharmaceutical organization (Fenema, Keers, & Zijim, 2014). This includes clear segregation of roles and responsibilities in SSC especially in Information System Management. All intellectual properties and customer information is collected and stored in cloud platform. Since data is one of the most valuable assets in a firm, effective enterprise customer management system allows coordination and integration of useful data from different channel sources, and enhance the customer experiences (NguyenBang, 2012). Access into different types of information is to be controlled according to the 'right' and 'authority'. It is to protect and ensure sensitive data from mishandling and unintentional data disclosure. If there is information and data to be shared with external business partner, a controlled private cloud should be operated and access opened solely to authorized personnel in the business partners (Laudon & Laudon, 2016).

Pharmaceutical MNC like Johnson & Johnson and Lilly pledged to conduct their business in the most noble and highest values. This business policy or strategy is to be clearly conveyed and adapted across all subsidiaries and global business service centers (Kidger , 2002). High quality customer relationship management in pharmaceutical contributes to high customer satisfaction. Healthcare regulation might differ in different countries and all business partners should be trained to comply with the headquarter mission and vision. Hence, knowledge transfer should be multidirectional to benefit headquarter, subsidiaries and all business partners such as local logistic service providers (Kidger , 2002).

Managers should implement a proper method to boost IC within the customer service department by providing complete training and education to strengthen employees' professional knowledge and skills. Employees learn to appreciate ethical customer management and ethics code of conduct if they are trained on the logic and impact towards organizational sustainability (Kidger , 2002).

### **Behavior**

Sustainability in pharmaceutical firms is strongly connected with the organization quality control in industry value chain; both primary and support activities (Laudon & Laudon, 2016). Erturgut and Soysekerçi defined Total Quality Management as an approach organizations used to meet customers' requirement and expectations, by implementing Quantitative methods on the organizational processes, service and products to sustain product development (Erturgut & Soysekerçi , 2009). This measures all activities to insure service quality with strict quality control on efficiency and effectiveness (Ritchter & Bruhl , 2017). Performance risk and error is to be monitored and minimized through output and behavior control. In pharmaceutical customer management, it requires agents to be aware of the sensitivity of customer information, accuracy and timeliness in order processing to ensure customers receive the drug delivery in time with correct products and quantity (Santos, Anunciação, & Svirina, 2013).

Under Johnson & Johnson policy, customers are protected by the firm's accountability to produce high-quality drugs and if there is any issue where the quality is compromised, product recall will be carried out and Johnson & Johnson committed to their best to rectify the issues (Turcsanyi & Sisaye, 2013). Such actions from Johnson & Johnson encourages the customers to have confident, knowing that the firm will always act ethically contribute a positive impact towards their financial performance. Professional and ethical employee behavior; integrity, accountability and honesty allows the firm the manage their reputation and building a healthy and positive customer relationship system based on trust and loyalty, that in return enhance organizational sustainability in this competitive and fast changing industry.

Effective and efficient implementation of operational customer management, especially in IT-related processing enables a pharmaceutical firm focus on analytical customer management, strategic planning on building positive customer relationship, generate customer value and enhance shareholder value for the firm (NguyenBang, 2012). It gives confidence to the customers, and as trust increases commitment and encourages customers to invest in a long-term relationships with the pharmaceutical company.

### **Evaluation**

Corporate Social Responsibility (CSR) is a concept on how the business activities are carried out continuously in terms of social value; ethically, responsibly and transparently. Building awareness of these social values improves corporate image and reputation. A multilevel sustainability indicator is a supporting tool towards organizational sustainability (DahlLyon, 2012). Key performance Indicator (KPI) is implemented in the customer service agents to measure the order processing accuracy and timeliness. It is a standard to ensure customers' requirement on the drug purchases are managed and processed correctly and without delay. Besides individual monitoring, Executive Support System (ESS) such as performances metrics and governance system (FenemaPaul, KeersBianca, ZijimHenk, 2014) within the customer service department allows management to analyze departments' performances and evaluate customer satisfaction level (LaudonKenneth & LaudonJane P., 2016). Based on the data generated, it assists management to identify any ethical gap or under satisfaction in customer management and work out on solutions to overcome this gap immediately. Customer satisfaction is a concept where the business must satisfy its customers in ensuring a long term

relationship, which contribute in the business sustainability and profitability (Farooq, Salam, Fayoll, Jaafar, 2018).

It is also highly recommended that pharmaceutical companies obtain external review on their performances and control system. European and United States companies obtained external review from appointed auditors annually to analyze and evaluate the organization performances and strategies (MooreSharon & JulieJie Wen , 2008). Both internal and external audit serve as a measurement tools for Malaysia pharmaceutical SSC to evaluate performances and monitor the organizational efficiency and effectiveness (SantosJoão, Anunciaçãopedro Fernandes , SvirinaAnna, 2013).

### Theoretical Framework



Figure 1: DPOBE Model [Source: Santos et al. (2012) ; López et al. (2010, 2011)]

In this research, level of sustainability in pharmaceutical organization is examined and measured with the implementation of ethical customer management in ‘DPOBE Model for Organizational Sustainability’. DPOBE was introduced by Gisbert Lopez and his team in 2010 and is used by some major firms in Portugal to identify major question about sustainability in the organizations (Santos, Anunciaçã, & Svirina, 2013). Five pillars were identified in this model as the most important frames in organizational sustainability; Direction, Posture, Organization, Behavior and Evaluation. The five pillars analyzed and explained on how strategic level, operational level, top management level and activity reporting level play their roles and responsibilities to maintain and sustain the business.

### Hypothesis Development

**H1 (Direction):** There is a positive relationship between culture and mission of a company that promote ethics and integrity in customer management towards pharmaceutical organizational sustainability

**H2 (Posture):** There is a significant impact of strong enforcement of conduct code and ethical policies in customer service towards pharmaceutical organizational sustainability

**H3 (Organization):** There is a positive relationship between having skillful and competent customer service agents in a pharmaceutical company and the organizational sustainability

**H4 (Behavior):** There is a positive relationship between effective and efficient customer relationship management and pharmaceutical organizational sustainability

**H5 (Evaluation):** There is a significant impact shown by systematic customer service performances governance and evaluation towards the sustainability in pharmaceutical company

### Research Methodology

This study is designed as a quantitative research where statistical analysis is carried out based on numerical data collected through questionnaire (Kumar , Talib, & Ramayah, 2013). The questionnaire, measured according to the Likert measurement scale, focused on customer service agents working in Malaysia pharmaceutical shared service centers (SSC) to determine the relationship between ethical customer management and organizational sustainability.

Quantitative research is a specific approach to study clearly and accurately on the specified independent and dependent variables. By implementing the quantitative methodology, correlation between the independent variable (aspects in ethical customer management) and dependent variable (organizational sustainability) can be evaluated. In this research, causal research is chosen in identifying cause-and-effect relationship between aspects in ethical customer management and organizational sustainability in Pharmaceutical industry.

### Findings

Data from the questionnaire is analyzed in Statistical Package for Social Sciences (SPSS). In order to study the distribution of respondents participated in this research, demographic aspects of gender, age, highest educational qualification and working experience in pharmaceutical industry are analyzed (Table 1).

Table 1: Demographic Profile

Demographic Information		Frequency	Percentage	Mean	Std. Deviation
<b>Gender</b>					
1	Male	118	69	1.310	0.464
2	Female	53	31		
<i>Total</i>		<i>171</i>	<i>100</i>		
<b>Age</b>					
1	20-30	51	29.8	1.930	0.823
2	31-40	91	53.2		
3	41-50	22	12.9		
4	51-60	4	2.3		
5	More than 60	3	1.8		
<i>Total</i>		<i>171</i>	<i>100</i>		
<b>Highest Educational Qualifications</b>					
1	Diploma	15	8.8	3.035	0.459
2	Bachelor Degree	135	78.9		
3	Master Degree	21	12.3		
4	PhD/ Doctorate	0	0		
<i>Total</i>		<i>171</i>	<i>100</i>		
<b>Working Experience in Pharmaceutical Industry</b>					
1	1-5years	109	63.7	1.655	1.103
2	6-10years	37	21.6		
3	11-15years	9	5.3		
4	16-20years	7	4.1		
5	>20years	9	5.3		
<i>Total</i>		<i>171</i>	<i>100</i>		

Generally, Direction, Posture, Organization and Behavior scored between Disagreed and Strongly Agreed, with mean scored above 4.0 respectively. However, the score distribution in Evaluation is between Strongly Disagreed to Strongly Agreed for all 4 items tagged to it. The mean in dependent variable; Organizational Sustainability recorded above 4.0, where most of respondents agreed to all the 5 statements under it.

In order to inspect the reliability on collected data, Cronbach’s alpha reliability method is applied (SekaranU. & Bougie, 2010) to measure how closely related of an item to the other variables in the same group. 4 items are measured in each independent variable and all independent variables resulted in Cronbach’s Alpha more than 0.80, which is at a Good reliability level. For the dependent variable, 5 items are measured and the reliability test shows a Cronbach’s Alpha of 0.846.

Table 2: Reliability Analysis

Variables	No of Items	Cronbach's Alpha
Direction	4	0.873
Posture	4	0.806
Organization	4	0.807
Behavior	4	0.873
Evaluation	4	0.827
Organizational Sustainability	5	0.846

Pearson's correlation analysis is applied to investigate the strength of linear relationship between independent and dependent variables in the study (University of the West of England, 2017). The result ranges from 0.341 to 0.672 and it shows that variables are at moderate positive correlation and not having any correlation issue for the study.

Table 3: Hypothesis Testing

Hypothesis	Sig (p < 0.05)	Coefficient (β-value)	Outcome
H1 (Direction):	0.0935	0.1173	Not Supported
H2 (Posture):	0.9302	-0.0072	Not Supported
H3 (Organization):	0.0007	0.2276	Supported
H4 (Behavior):	0.0004	0.2771	Supported
H5 (Evaluation):	0.0030	0.1731	Supported

According to the Hypothesis Test, result in multiple regression analysis for Hypothesis 1 concludes that Direction has a positive impact toward organizational sustainability in pharmaceutical industry but p-value is higher than 0.05. For Hypothesis 2, the analysis concludes that Position has a negative impact toward organizational sustainability in pharmaceutical industry but p-value is higher than 0.05. Hence, H1 and H2 are not supported in this research.

The multiple regression analysis result for Hypothesis 3 (Organization), Hypothesis 4 (Behavior) and Hypothesis 5 (Evaluation) is showing a p-value below 0.05 and positive β-value. The analysis concludes that Organization, Behavior and Evaluation have positive impact

toward organizational sustainability in pharmaceutical industry. Hence, H3, H4 and H5 are supported in this research.

Based on analysis in SPSS, multiple regression equation is developed as:

$$\text{Organizational Sustainability in Pharmaceutical Industry} = 0.855 + 0.117 (\text{Direction}) - 0.007 (\text{Position}) + 0.228 (\text{Organization}) + 0.277 (\text{Behavior}) + 0.173 (\text{Evaluation})$$

### Discussion

The result of statistical tests conducted on the five independent variables and dependent variable shows significant relationship between ethical customer management and organizational sustainability in pharmaceutical industry. Among the five independent variables, Behavior scored the highest coefficients value of  $\beta = 0.277$  and follow by Organization at  $\beta = 0.228$ . Evaluation contributed a coefficients value of  $\beta = 0.173$  while Direction is at  $\beta = 0.117$ . The idea is supported by another sustainability factors developed by Barquet and the team for PSS (product service system) business models. According to this tools, education for employees and business partners is emphasized and employees should have the mindset about product responsibility and ownership in their daily routine (Barquet, Seidel, Seliger, Kohl, 2016). The importance of service quality, employees' skills and knowledge, efficiency and effectiveness and utilization of IT innovation towards business sustainability is shown in his study. Personnel service quality and brand image were verified as the top 2 factors to impact customer satisfaction and trust towards a brand, which serve as an important factor in customer retention (Farooq, Salam, Fayoll, Jaafar, 2018).

### Hypothesis 1:

It evaluates the importance of leadership's involvement in creating, delivering and capturing the organizational culture, values and goals (Barquet, Seidel, Seliger, Kohl, 2016). Strategy and effort of a pharmaceutical firm on sustainability can also be determined by hiring and retaining high-quality staffs who aligned with the company mission and vision in ethical customer management (Turcsanyi & Sisaye, 2013). While managers continuously motivate the ethical values (Lega, Prenestini, & Spurgeon, 2013) and building the awareness of these values (Dahl, 2012), employees' awareness and understanding toward the sustainability business model is examined as well (Barquet, Seidel, Seliger, Kohl, 2016).

However, based on the result from statistical testing, the positive relationship between company's direction in promoting ethical customer management and pharmaceutical organizational sustainability is not supported. There is no significant literature review to support the result in Malaysia context. One of the estimation it that most employees do not pay much attention to company mission, value and strategy. There can be lack of emphasizes by managers in daily routine when in most companies, employees' understanding and awareness on company mission and vision is not included in their job performances.

### Hypothesis 2:

As a highly regulated industry, government law and regulation must be strictly followed by pharmaceutical companies. Employees' understanding on code of conduct (Code of Conduct, 2017) is important to ensure proper attitude and etiquette when dealing with customers' confidential information, inquiries and complaints.

However, the analysis result shown from the survey does not support that enforcement of conduct code and ethical policies in customer service contribute strong impact towards pharmaceutical organizational sustainability. It is believed that employees in Malaysia pharmaceutical organizations does not show strong understanding in the code of conduct and have weak understanding regarding drug and privacy regulation.

### Hypothesis 3:

Technology innovation (Barquet, Seidel, Seliger, Kohl, 2016) contributes to standardization and value-added services. Hence, employees are accountable to utilize the technology ethically to ensure customer information is managed with integrity.

This is supported by the findings in Jie and Tang's research where the relationship between training and service quality is studied (Jie & Tang, 2018). Relevant skill and knowledge trainings to all the employees must be provided to prepare them in daily processes such as order processing, customer inquiry handling, supply chain management, financial analysis and so on (Barquet, Seidel, Seliger, Kohl, 2016). Quality training is also emphasized to the business partners such as logistic service providers to ensure drugs deliveries is managed with good practices and product quality is assured.

The analysis found positive relationship between having skillful and competent customer service agents in a pharmaceutical company towards the organizational sustainability. Employees agreed they are equipped with the skills and knowledge regarding the assigned jobs while third party vendors are trained with relevant knowledge. Hence, the hypothesis is accepted.

### Hypothesis 4:

In pharmaceutical customer management, it requires agents to be aware of the sensitivity of customer information, accuracy and timeliness in order processing to ensure customers receive the drug delivery in time with correct products and quantity (Santos, Anunciação, & Svirina, 2013).

Operational excellence (Sulaiman, Baharum, Ridzuan, 2014) examines the employees' efficiency and effectiveness in handling requests and inquiries from customers (Santos, Anunciação, Svirina, 2013). Positive customer experience is proven as an important factor toward customer satisfaction which will lead to customer retention. High service quality shown by the pharmaceutical employees ensure the customers' confidence toward the brand image (Farooq, Salam, Fayoll, Jaafar, 2018).

Analysis of the study recorded a positive relationship between effective and efficient customer relationship management and pharmaceutical organizational sustainability.

### Hypothesis 5:

Lastly, organizational sustainability is measured with Evaluation, which focus on internal and external control and governance in the business. Building awareness of Corporate Social Responsibility (CSR) improves corporate image and reputation (Azim & Azam, 2013). It shows how the business activities are carried out continuously in terms of social value; ethically, responsibly and transparently. There are multilevel sustainability indicator to evaluate company performance internally and externally. Key performance Indicator (KPI) is implemented in pharmaceutical companies to measure and governance the employees' performances metrics (FenemaPaul, KeersBianca, ZijimHenk, 2014) and evaluate customer satisfaction level (LaudonKenneth & LaudonJane P., 2016).

Internal and external audit from appointed auditors is conducted annually to analyze and evaluate the organization performances and strategies (MooreSharon & JulieJie Wen, 2008). Both internal and external audit serve as a measurement tools for Malaysia pharmaceutical SSC to evaluate performances and monitor the organizational efficiency and effectiveness (SantosJoão, AnunciaçãoPedro Fernandes, SvirinaAnna, 2013).

Result of the statistical process shows is a significant impact of systematic customer service performances governance and evaluation towards the sustainability in pharmaceutical company.

### Conclusion

The main findings in this research is aligned with the implications and it benefits the pharmaceutical organizations to identify any gap in their ethical customer management to achieve business sustainability.

The research will serve as a guide to future researchers and to the pharmaceutical industry in Malaysia. With ethical customer management, customer service quality is improved and it will lead to higher customer satisfaction. It also contributes to the consumers' confidence towards the brand where patients entrust their health to.

More areas of study should be explored and researched further to ensure that all factors in ethical customer management in pharmaceutical industry is identified and discussed. Sustainability in pharmaceutical industry is crucial to ensure continuous drug supply at an affordable price to everyone in improving our living quality and saving our lives.

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