

# Can Social Media Make Teachers Agile: Digital Competency as Moderator

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## Abstract

**Purpose:** To explore the relationship between social media usage and workforce agility and the moderation effect of digital competency among government-aided secondary school teachers in Malaysia.

**Design/methodology/approach:** Quantitative methodology using PLS-SEM analysis conducted on 217 responses collected through the distribution of survey questions using Google Form.

**Findings:** Social media usage and digital competency were found to have a positive significant relationship with workforce agility. However, digital competency was not found to strengthen the relationship between social media usage and workforce agility.

**Research limitations/implications:** Limited scope of respondents. Addressed the gap due to the limited study on workforce agility and social media usage among teachers.

**Practical implications:** School leaders should leverage on the use of social media in promoting operational flexibility and focus on the targeted competence area of digital competency.

**Originality/value:** Extending the Information Processing Theory as well as creating new insights for school leaders to leverage on social media usage and workforce agility.

**Keywords:** digital competency, social media usage, DigComp, PLS-SEM, workforce agility

## Introduction

Social media has revolutionized human communication, but most importantly its widespread has also impacted various sectors and industries in their day-to-day affairs. Thus, the education sector is no exception. A review of literatures (Van Den Beemt et al., 2019) has outlined and networked how social media has influenced schools, teachers, and students. Further, it also revealed the use of social media beyond instructional practise in classrooms. While considering all the possible advantages that social media can offer, there are situations where teachers are having difficulties in segregating their professional identities from their individual identities (Fox & Bird, 2017).

While having acknowledged the importance of social media in schools, achieving the national education goals is another agenda to look into. The progression into the third wave of education

transformation in 2022 (Ministry of Education Malaysia, 2013), aims to promote higher operational flexibility. The term flexibility has been long associated with agility, being one of the characteristics; both in organizational agility and workforce agility (Muduli, 2013; Zhang & Sharifi, 2000). As previous researchers have shown (Bala et al., 2019; Cai et al., 2018), social media is proven to have positive influence over the agility of employees in the organization, hence the exploration on the linkage of these two aspects in the field of education. Notably, the concept of workforce agility is also scarcely studied despite there have been researches on organizational agility in schools (Mehdi Biglari et al., 2020; Mohsen & Marzieh Rezaei, 2021).

With the introduction of the Malaysia Education Blueprint (MEB) in 2013, the government has since been ramping up the usage of ICT to promote new programmes and innovations amongst educators throughout the three waves of transformation. Nevertheless, the progress of ICT advancement has also changed the conventional ways of communication. As a result, social networking applications such as WhatsApp, Telegram, and Facebook have become important means of communication. A report by the Statistics Department of Malaysian Communications and Multimedia Commission (2019) revealed in its recent survey among 4160 respondents, 70.6% of them use social media platform for group communication, while 46.6% use for private messaging. Further, 56.4% of the respondents also claimed to use internet at their workplace. This connotes social media may be used regularly by teachers in schools too.

Thus, this begs the question of whether teachers' digital competence reflect in their use of social media applications. A more perturbing concern would be Malaysia's focus in measuring its citizen's digital competence. According to Law et al. (2018), Malaysia has attempted using various digital frameworks to table its citizens' competency. This may suggest the difficulty to illustrate the actual competency as different framework could possibly have different definitions and areas to measure. In embracing the global needs and in the pursuit of a global standard, this study proposes to consider DigComp 2.1 as a standard framework throughout the nation. To justify, DigComp 2.1 has been chosen as a basis for the building of Digital Literacy Global Framework (DLGF) (Law et al., 2018).

The change that takes place throughout the years in the discipline of science and technology has not spared education from not evolving. The constant change has resulted a Volatility, Uncertainty, Complexity, and Ambiguity (VUCA) world (Bennett & Lemoine, 2014) that requires constant adaptability; leading to the need of being agile. As flexibility in operation is one of the main highlights in the 3rd wave of MEB, thus agility should be of main priority where employees should possess qualities of an agile workforce such as informative, adaptability, speed, competence, flexibility, collaboration, and development (Muduli, 2013).

Therefore, while acknowledging an agile workforce is essential in achieving the goals and aims in the MEB 2013-2025, this study attempts to explore the relationship between social media usage and workforce agility based on the concept of information processing theory while investigating the strengthening effect of digital competency in a moderation analysis.

## **Literature Review**

### ***Theoretical Background – Information Processing Theory (IPT)***

One of the popularly-studied theories with pertinence to the acquiring of information is the information processing theory. This theory posits that "employees acquire, process, and act on information from others to make ideal and thoughtful decisions" (Pitafi et al., 2020). Further inspired by Pitafi et al. (2018), this research has adopted this theory to explain the role of social media in promoting higher agility amongst secondary school teachers in Malaysia. In the VUCA world, knowledge has become increasingly important where every single information can be crucial in decision making. The choice of medium used for sharing information purposes is essential as information conveyed and learned should be precise and efficient. In this

purview, the widespread use of social media is believed to replace conventional communication methods such as letter writing or even face-to-face meetings. Where agility is concerned, Bathaei et al. (2019) asserted that agile employees must be equipped with “sufficient sources of information and capabilities for processing such information” in order to sense and respond to external changes in dealing with uncertainties in their surroundings (Muduli, 2017). Notably, this theory has been studied in various fields on information studies (Deng et al., 2020; Gao et al., 2018; Pitafi et al., 2020; Srinivasan & Swink, 2015) and undoubtedly, prior studies on this theory (Abueita & Al-Kousheh, 2017; Loc et al., 2019; Lu & Carr, 2020) have been conducted in educational institutions such as schools but more often than not, the emphasis is on teaching and learning processes. Therefore, the study in the education field, specifically in the school-based environment will provide new insights on the concept of agility amongst teachers and also their use of social media at the workplace.

### ***Workforce Agility (WA)***

Paul et al. (2019) defined workforce agility as the capability of employees in the organization in adapting to the changes at their workplace. Similarly, Muduli (2013) highlighted seven attributes of being an agile workforce: (1) developmental, (2) flexible, (3) adaptability, (4) competence, (5) speed, (6) collaborative, and (7) informative. Despite acknowledging the need of having an agile workforce, Sherehiy & Karwowski (2014) claimed that there have been scarce studies on WA and diminutive information is known on what factors in the organization that are deemed conducive that would contribute to making employees agile. Subsequently, the concept of employee agility is notably less paid attention to (Pitafi et al., 2020). The concepts of workforce agility and employee agility are often used interchangeably. The latter term characterised agility of employee into three dimensions; namely proactivity, resilience, and adaptability, while the former is in accordance to Muduli’s (2013) literature. However, these both concepts refer to the employees of the organization and arguably, there are several prior studies that have been using these terms interchangeably (Bathaei et al., 2019; Qin & Nembhard, 2015). The works of Tessarini Junior & Saltorato (2021) further revealed the similarities of these concepts and the aspects that contribute to defining the agility of employees.

### ***Social Media Usage (SMU)***

The vast types of social media available in the market have given organizations the option to choose and leverage on. This is confirmed in the literature of Cao & Yu (2019) that social media has transformed conventional practices in communication and also knowledge sharing. Employees are seen to be using social media to “develop their relationships at work, collect beneficial information for overcoming work problems, learn about their co-workers, and ask questions related to work from others in the organization” (Ghorbanzadeh et al., 2021). Men et al. (2020) expounded on the two main categories of social media: enterprise social media (ESM) for workplace and general social networking sites (e.g., Facebook, WhatsApp, Telegram) for public. The context of ESM is not applicable in this study as these general social networking sites are not blocked in Malaysia, whereas in China, these sites are prohibited (Wei et al., 2020). SMU has been frequently associated to teaching and learning in schools (Chung & Chen, 2018; Krutka & Carpenter, 2016; Krutka et al., 2017), however this study takes the stance to explore teachers’ professionalism on SMU out of their classroom practice. Given that the need to ready teachers for the 3rd wave of transformation, social media is indeed a crucial tool in elevating communication experience; especially in making employees (teachers) agile to share knowledge, collaborate, and network. One of the focuses in the Wave 3 highlights on the cultivation of peer-led culture to promote excellence in professionalism can be achieved

through the use of social media. Best practices or discussions can be held on the go, given the versatility and convenience the platform can provide; in the best interest of efficiency and flexibility.

### ***Digital Competency (DC)***

The notion of digital competency in this study is aligned to the definition brought forward by Ferrari (2013): “set of knowledge, skills, attitudes, strategies and awareness which are required when Information and communications technology (ICT) and digital media are used to perform tasks, resolve problems, communicate, manage information, collaborate, create and share content, and build knowledge in an effective, efficient, and adequate way, in a critical, creative, autonomous, flexible, ethical and a sensible form for work, entertainment, participation, learning, socialization, consumption and empowerment”. While there could be many concepts revolving around the idea digital competence, a comparative and in-depth analysis of these concepts have been expounded by Falloon (2020). The researcher highlighted the differences between digital literacy and digital competence where digital literacy refers to one’s ability in proper use and evaluation of digital resources, services, and tools for lifelong learning processes while digital competency involves the understanding and consideration of “broader implications and effects of digital technologies on individuals and society”.

Embarking into formulating a standardized digital competence framework across Europe, Ferrari (2013) has analysed various frameworks used globally to outline the similarities and common aspects to establish on. As a result, DigComp 1.0 was developed with 6 key areas with 2 dimensions. The improvised version, DigComp 2.0 was later introduced in 2016 with added 2 new dimensions with levels of proficiency and outcomes (Pérez-Escoda & Fernández-Villavicencio, 2016; Vuorikari et al., 2016). The framework was then revised to DigComp 2.1 (Carretero et al., 2017) in which Dimension 5 highlights on the examples of use.

While the world is constantly evolved with new technologies, being competent digitally is no longer a necessity but a need. With various online services offered (Ministry of Education Malaysia, 2020), teachers are expected to be equipped with the right knowledge and experience in handling these applications. However, the concerning matter would also be the various frameworks used to measure competence in Malaysia (Ferrari, 2013). Hence, proposing the use of a standardised framework across nation would benefit organizations to find measures in filling the gap between the existing practice and intended competence. While DigComp 2.1 is considered as a foundation in building the DLGF (Law et al., 2018), it is therefore appropriate to recommend Malaysia to adapt and adopt DigComp 2.1 as a national digital competency framework, similarly to DigComp 2.2AT in Austria (Federal Ministry for Digital and Economic Affairs, 2018, p. 36).

## **Hypothesis Development**

### ***Social Media Usage and Workforce Agility***

Highlighted by Muduli (2013), one feature to be an agile employee is adaptability. Agile employees who can adapt, are also seen to be the agents of promoting innovation (Cannon, 2017). To innovate, the creativity of employees is essential, which leads to novelty and originality of their work (Luqman et al., 2021). Pitafi & Ren (2021) indicated that the use of social media has eminent role in the sharing of knowledge, hence promoting employee agility. On a contrary note, the study by Luqman et al. (2021) revealed that the use of social media at workplace however has negative impact on creativity, in which hampers agility.

The findings of recent studies (Cai et al., 2018b; Goodarzi et al., 2018; Varshney & Varshney, 2020) led to recognizing workforce agility as an essential antecedent in predicting the organization’s performance. On a side note, prior studies by Ali-Hassan et al. (2015) and Çetinkaya & Rashid (2018) have noted on the positive significance social media has upon the

employee's performance. Hence, composing from the results aforementioned, a hypothesis is developed:

H1: Social media usage has a positive significant relationship with WA.

### ***Digital Competency as Moderator***

The scarcity of research in exploring digital competency in promoting workforce agility highlighted the lack of attention paid despite the advantage it could offer (Murawski & Bick, 2017). According to Varshney (2020), digital competency is also seen as a major factor in transforming the workforce and organization into digitalization, parallel to the findings by Ravichandran (2018) that IT competence has a significance influence ( $\beta = .418$ ) in promoting organizational agility. In a study by Lim et al. (2021), the direct relationship between digital competency and workforce agility revealed positive significance ( $\beta = .464$ ), using adapted DigComp 2.1 to measure digital competency.

Acknowledging the impact that digital competency could have upon workforce agility, it is therefore worth probing onto its strengthening effect on the relationship between social media usage and workforce agility. Further, as addressed in the literature above, workforce agility can be enhanced through knowledge sharing, in which social media usage plays a crucial role in facilitating the process. Though there may be limited literature studying on digital competency as the moderator, previous studies have been conducted in exploring the strengthening effect of the literacy on digital devices and gadgets with pertinence to knowledge sharing. For instance, the study by Ali Akbar et al. (2019) proved that e-literacy (the ability of using ICT to transfer and learn knowledge) strengthens the process of knowledge management. Therefore, this study proposes to examine the role of digital competency in moderating the relationship, hence the hypothesis:

H2: Digital competency has a positive significant relationship with WA.

H3: Digital competency strengthens the relationship between social media usage and workforce agility.

Deriving from the hypotheses above, a conceptual framework (Figure 1) is formed.

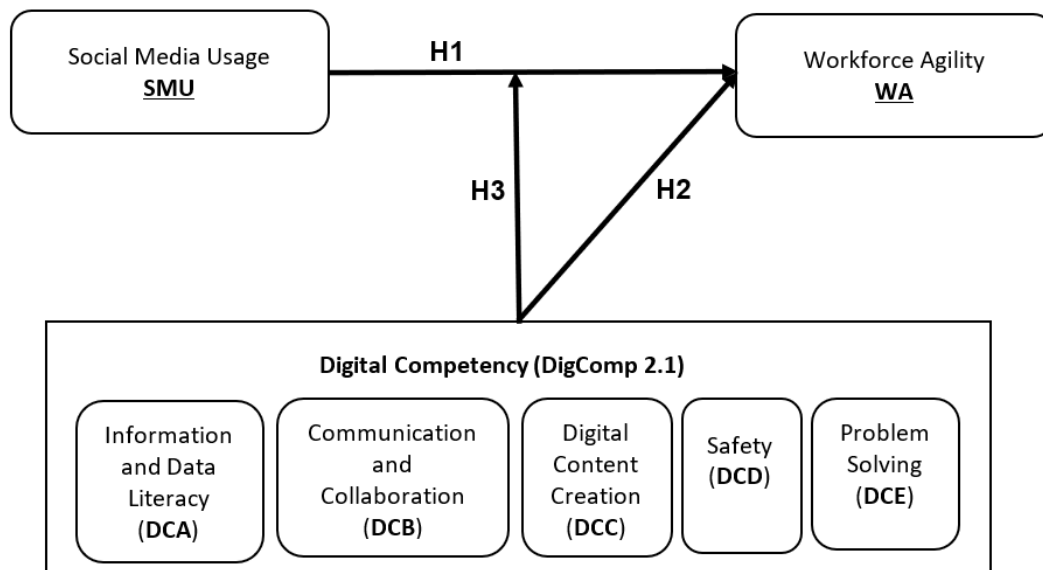


Figure 1. Proposed research model



## Methods

### *Sample and Procedure*

This cross-sectional study adopted the instruments from Lim et al. (2021) in measuring the three variables. The sample size of this study is determined using purposive sampling with several inclusion criteria: in-service normal academic teachers who are users of social media and ICT devices for work purposes. The almost-equal ratio of rural to urban secondary schools around Malaysia made it a better option over primary school, with 1,296 schools for the former and 1,137 for the latter (Kementerian Pendidikan Malaysia, 2020). Data also revealed that there were 237,317 teachers serving in government-aided secondary schools as of January 2019. The instrument was then distributed using Google Form to facilitate the collection of data. Due to stringent protocols over the privacy of data, limited information can be collected from the survey. The estimation of minimum sample collection was done using G\*Power, which resulted a recommended amount of 77, using the setup of 0.15 effect size, power of a test at 0.80, and margin error of five percent (Nicolescu & Nicolescu, 2019).

### *Measures*

The adopted questionnaire consisted of two parts: demographic details and the main survey section. The first section collects details on age, gender, years of working experience, educational background, and two multiple-choice questions on the types of social media applications and ICT gadgets used. The second segment uses a Likert scale to measure; 8-point scale for DigComp 2.1 to measure digital competency while 5-point scale for both workforce agility and social media usage, ranging from Strongly Disagree to Strongly Agree. Prior to mass distribution via online channels, the instruments (Lim et al., 2021) were first pilot-tested using Cronbach's Alpha to measure the internal consistency (Tavakol & Dennick, 2011).

*Table 1: Questionnaire Development Table*

Section	Variable	Number of Items
A	Respondent's Demographic Details	6
B	Digital competency	21
C	Social Media Usage	6
D	Workforce Agility	7
Total Items		34

### *Demographic Information*

Data was collected from 217 respondents, with 161 respondents were female and 56 were male. The majority of the respondents were of 31-40 years old (40.6%), followed by 77 respondents of 41-50 years old (Table 2). Over 80 percent of the respondents are first degree holders as their highest academic qualifications, while only 2 respondents have diploma (Table). The survey also revealed that types of ICT used at work, with majority have notebook computers (207 users out of 217) and Android smartphones (169 users out of 217). As for the social media use, more than 200 teachers use WhatsApp and Telegram as their main communication platforms (Figure 2 and 3). The data was also analysed for its descriptive interpretations, as per tabled in Table 3.

*Table 2: Age profiling based on the samples collected*

	Frequency	Percent
21 - 30	12	5.5
31 - 40	88	40.6
41 - 50	77	35.5
51 - 60	40	18.4
<b>Total</b>	<b>217</b>	<b>100.0</b>

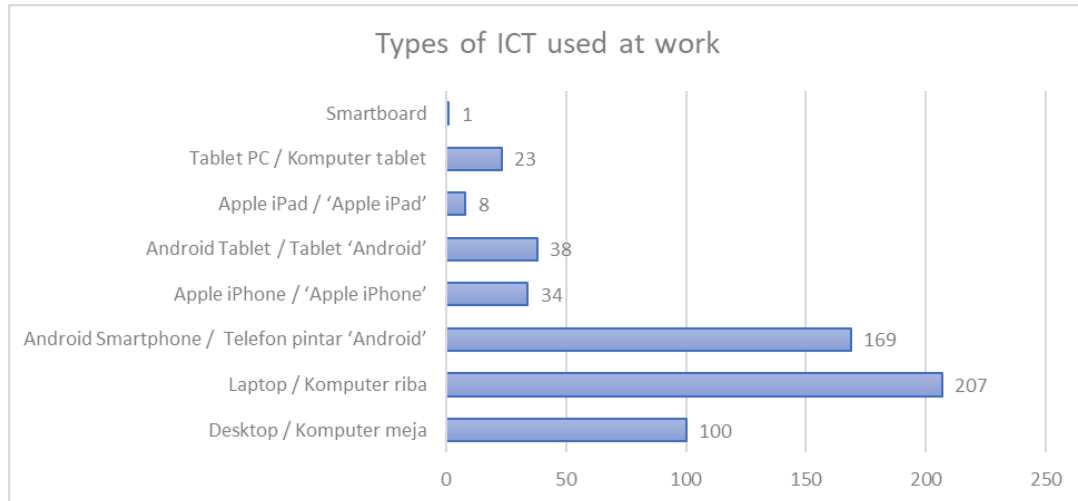


Figure 2. Types of ICT used at work

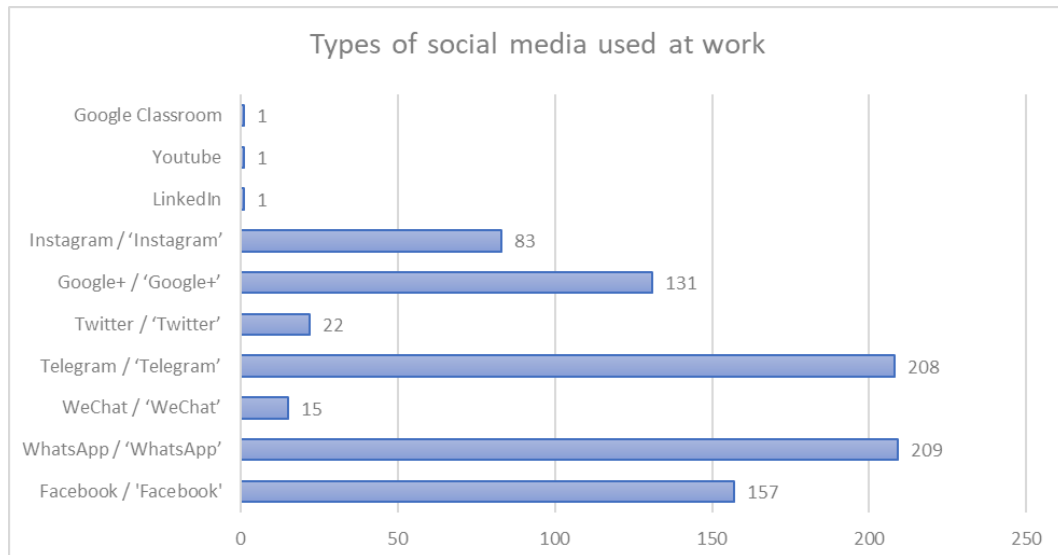


Figure 3. Types of social media used at work

Table 3: Mean and Standard Deviation of Variables

Variables	Mean	Mode	Std. Deviation
<b>Digital Competency</b>			
- Information and Data Literacy	5.639	6.000	1.362
- Communication and Collaboration	5.624	6.000	1.371
- Digital Content Creation	4.858	5.000	1.575
- Safety	5.409	6.000	1.449
- Problem Solving	4.811	6.000	1.601
<b>Social Media Usage</b>	4.250	5.000	0.690
<b>Workforce Agility</b>	3.842	4.000	0.683

### Measurement Model

Prior to assessing the model, a full collinearity analysis was conducted to assess the existence of Common Method Bias due to the single-sourced data (Kock, 2017). As a result, variance inflation factors (VIF) derived from the test were below the value of 3.3, hence there was no collinearity issue (Table 4) (Kock & Lynn, 2012).

*Table 4: Full Collinearity Test*

	Digital Competency	Employee Empowerment	Knowledge Sharing	Social Media Usage	Workforce Agility
VIF	1.685	2.085	2.066	1.809	2.431

As for the convergent validity, Hair et al. (2017) proposed to examine the average variance extracted (AVE) for each variable where the values should be more than 0.50 and the outer loadings should exceed 0.708, so that the squared value of the outer loadings should not be less than 50 percent of the variance. Using SmartPLS 3.2.8 (Ringle et al., 2015), the items in both first and second order constructs exceeded the expectations (Table 5 & Table 6).

*Table 5: Measurement Model for the First-Order Constructs*

First-Order Constructs	Item	Loadings	AVE	CR
Information and Data Literacy	DCA1	0.925	0.848	0.944
	DCA2	0.924		
	DCA3	0.914		
Communication and Collaboration	DCB1	0.902	0.803	0.961
	DCB2	0.921		
	DCB3	0.896		
	DCB4	0.871		
	DCB5	0.895		
	DCB6	0.889		
Digital Content Creation	DCC1	0.922	0.748	0.922
	DCC2	0.925		
	DCC3	0.868		
	DCC4	0.729		
Safety	DCD1	0.879	0.813	0.946
	DCD2	0.911		
	DCD3	0.909		
	DCD4	0.907		
Problem Solving	DCE1	0.910	0.875	0.965
	DCE2	0.951		
	DCE3	0.945		
	DCE4	0.934		
Social Media Usage	SM1	0.872	0.774	0.953
	SM2	0.884		
	SM3	0.929		
	SM4	0.905		
Workforce Agility	SM5	0.876	0.658	0.931
	SM6	0.807		
	WA1	0.784		
	WA2	0.795		
	WA3	0.811		
	WA4	0.861		
	WA5	0.841		
	WA6	0.857		
	WA7	0.716		



Table 6: Measurement Model for Second-Order Constructs

Second-Order Constructs	Item	Loadings	AVE	CR
<b>DigComp 2.1 (Digital Competency)</b>	Information and Data Literacy	0.904	0.854	0.967
	Communication and Collaboration	0.947		
	Digital Content Creation	0.926		
	Safety	0.921		
	Problem Solving	0.921		

The assessment of heterotrait-monotrait ratio of correlations (HTMT) was used to assess the discriminant validity where the indicators were checked, should they overlap each other (Table 7). The value should not exceed 0.85 (Henseler et al., 2015)

Table 7: HTMT between Constructs

	DC	SM	WA
1. Digital Competency			
2. Social Media Usage	0.382		
3. Workforce Agility	0.641	0.625	

### Assessment of Model

In the assessment of the model, Hair et al. (2019) suggested to report several criteria such as collinearity assessment, path coefficients,  $R^2$  value,  $f^2$  value,  $Q^2$  value, and PLSPredict. Mardia's multivariate skewness ( $\beta = 1.098$ ,  $p < 0.01$ ) and Mardia's multivariate kurtosis ( $\beta = 16.353$ ,  $p < 0.01$ ) revealed the data is normal (Hair et al., 2017). Through the complete bootstrapping process with 5,000 subsamples and 95% confidence interval, the path coefficients, the standard errors, t-values and p-values were then reported as in Table 8 (Ramayah et al., 2018, p. 291). To report PLSPredict, the items of the endogenous construct must be included in the model for the calculation procedure. Thus, under the recommendation by Sarstedt et al. (2019), a disjoint 2-stage approach is most suitable (Figure 4).

The  $R^2$  value, also known as the coefficient determination is 0.528, indicating this model has a moderate predictive power (Hair et al., 2017). The next step is to examine the  $f^2$  value, commonly known as the effect size or Cohen's Indicator (Sheko & Spaho, 2018). Thus, in this study, the effect size for the direct relationship between SMU and WA is 0.284 and the effect size for the hypothesized relationship between DC and WA is 0.394. However, the moderated relationship revealed the effect size of 0.000, indicating no effect. The re-examination of the model was conducted by removing outliers using the case-wise diagnostics, which could impact the results due to the error during data collection (Richter et al., 2020). However, despite removing outliers, the moderated relationship remained insignificant, hence H3 is rejected.

Table 8: Assessment of the Structural Model

Hypothesis	Relationships	Standardized Beta	Standard Errors	t-value	p-value	BCI LL	BCI UL	f <sup>2</sup>	VIF	Decision
H1	SM → WA	0.413	0.056	7.381	p<0.001	0.317	0.502	0.284	1.271	Supported
H2	DC → WA	0.464	0.051	9.041	p<0.001	0.198	0.412	0.394	1.154	Supported

Note: DC = Digital Competency, SMU = Social Media Usage, WA = Workforce Agility

Table 9: Hypothesis of Moderating Effect

Hypothesis	Relationships	Standardized Beta	Standard Errors	t-value	p-value	BCI LL	BCI UL	f <sup>2</sup>	VIF	Decision
H3	DC*SM → WA	-0.006	-0.012	0.125	0.450	-0.087	0.069	0.000	1.271	Not Supported

Note: DC = Digital Competency, SM = Social Media Usage, WA = Workforce Agility

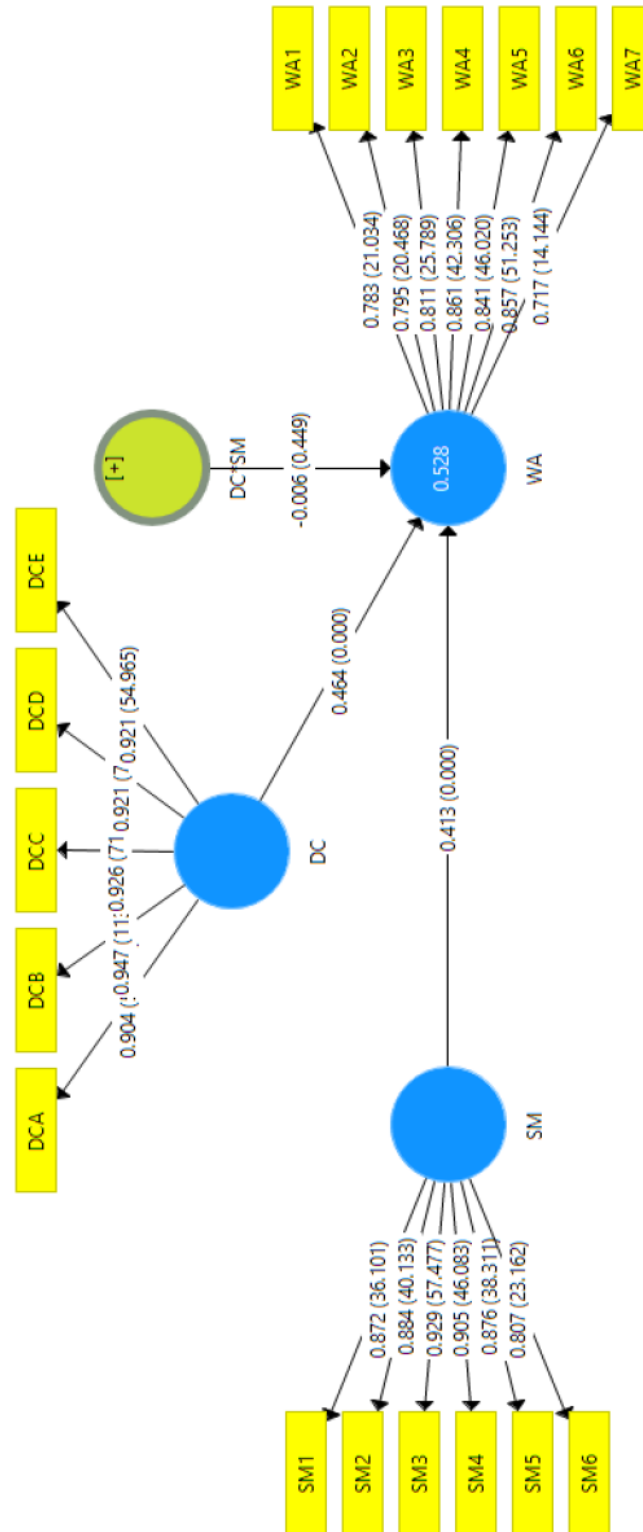


Figure 4: Bootstrapped Model

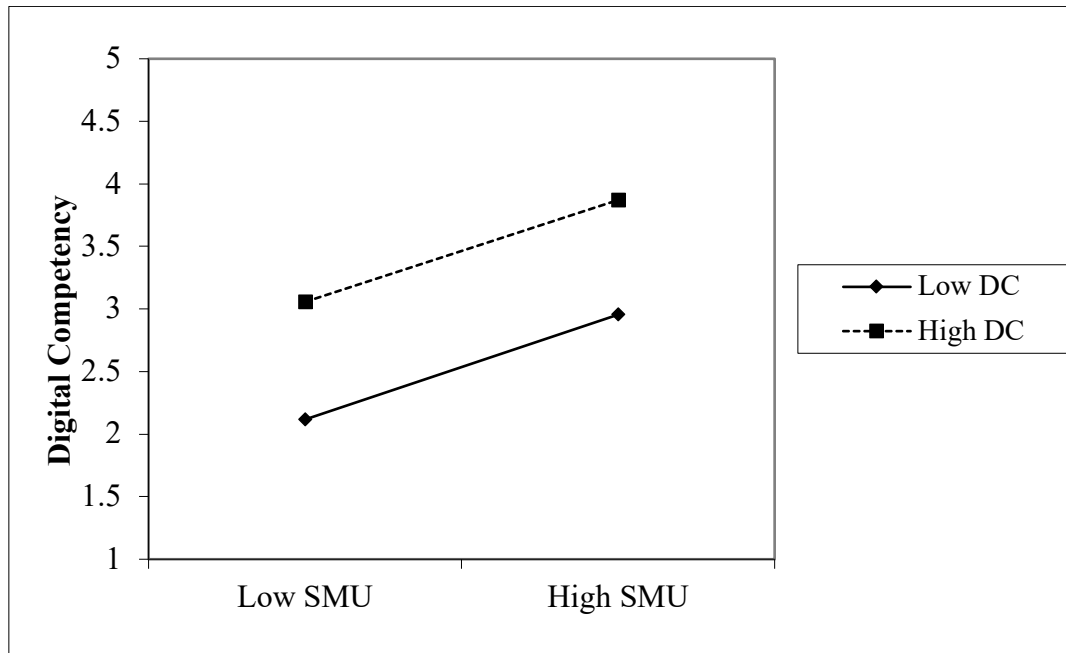


Figure 5 : Interaction plot for social media usage and digital competency

Acknowledge that the  $Q^2$  procedure may not be sufficient for prediction, Shmueli et al. (2019) proposed to assess the model using the PLSPredict. In this process, holdout samples were considered in the calculation in which the former does not include. Through SmartPLS software, the process was carried out using the setup of ten folds under ten times repetition. The indication of a high predictive power model would be the value of PLS root-mean-squared-error (RMSE) should be lower than linear regression model (LM).

Table 10: PLS-Predict

Item	PLS RMSE	LM RMSE	PLS-LM	$Q^2_{predict}$
WA1	0.716	0.734	-0.018	0.210
WA2	0.692	0.712	-0.020	0.226
WA3	0.704	0.736	-0.032	0.209
WA4	0.662	0.684	-0.022	0.280
WA5	0.679	0.684	-0.005	0.457
WA6	0.609	0.615	-0.006	0.480
WA7	0.779	0.812	-0.033	0.120

## Discussion

This study has provided a new insight on workforce agility from the perspective of information processing theory, through the use of social media. As this has been a subject less studied on especially among teachers, this research has somewhat also filled in the gap of what could possibly be done to promote agile characteristics among teachers to face new challenges and opportunities in this VUCA world. While statistics have shown the heavy use of these social media applications at workplace, it is also worthwhile examining what outcome will it be if more emphasis is given to fortify teachers' knowledge in their digital competence.

***Recapitulation of Finding – Social Media Usage and Workforce Agility***

The empirical analysis revealed that social media plays a significant role in uplifting workforce agility among teachers. While being informative is one of the characteristics of being agile, knowledge sharing is crucial among employees to gain new knowledge. Therefore, with the advancement of technology, social media replaces conventional media to disseminate and share knowledge. Zhao et al. (2020) highlighted one feature of social media is the capability to provide a transparent yet open channel for communication. The use of various social media in school certainly confirms the importance of these media in facilitating information sharing and also further promotes speed and flexibility due to the nature of social media today. With the capability of sharing various file formats and also features of video conferencing in Telegram and WhatsApp, it has definitely saved organizations of their resources since most of the features are free. This conforms to the results of previous studies (Pitafi et al., 2019; Pitafi et al., 2020; Ravenscroft et al., 2012) where social media were found to be essential in elevating workforce agility and job performance.

***Recapitulation of Finding – Digital Competency as Moderator***

The direct relationship between digital competency and workforce agility also revealed that digital competency is equally important to promote workforce agility. Based on the data analysed, it can be inferred that generation gap could be the factor to determine the relevance of digital competency in this context. For instance, the respondents are mainly 41 years old and above, suggesting that they could be of the Gen-X and Gen-Y in which they are frequently known as the digital immigrants (Prensky, 2001a; Prensky, 2001b).

On a contrary note, the strengthening effect of digital competency seemed to not have any implications on the hypothesized relationship between social media usage and workforce agility. Despite Mikalef & Pateli (2017) have asserted that being proficient in IT allows employees to use IT tools for communication at workplace, one of the reasons that contribute to the rejection of the hypothesis could be social media applications have been increasingly user-friendly (Pitafi et al., 2020). While literature cited by Pitafi et al. (2020) implied that IT proficiency is essential, the researchers also arrived at the similar finding of this study where the moderating relationship is rejected. Thus, the context of digital competency may find its relevance in other fields or usage, such as the handling of data through computers and other security-related issues as per suggested in DigComp 2.1.

The competence areas in DigComp (Vuorikari et al., 2016) could play significant role in strengthening the use of social media in elevating workforce agility. For the competence in information and data literacy, teachers could strengthen their skills in filtering and evaluating data prior to usage. To anticipate a better experience in using social media, a better competence of communication and collaboration aids in the full utilization of the platform, which helps teachers to use the features in the gadget and applications while being able to manage their own digital identities. As developmental and informative are the characteristics to being an agile person, thus the skill of creating new digital content is essential. Creative teachers may use different platforms to create new resources to collaborate and share knowledge among their colleagues. However, the extensive use of social media will also be prone to various threats and danger. Prolonged hours and mishandling of gadgets and devices lead to health hazards in a long run. Having gained proper knowledge and skills in managing and protecting self during the use of devices will prevent one from unintended mishaps such as unergonomic environment and also privacy intrusion. The final competence area that completes the puzzle of DigComp is the problem-solving capability in which crucial in dealing with issues in digital environments. While problems may arise in the use of social media via gadgets or applications, the capability of being able to resolve these problems leads to efficiency in operation; hence

being agile. Further, lower reliance on external workforce also translates to lower downtime and also lesser resources spent.

## **Implication**

### ***Theoretical Implication***

The underpinning theory of this study postulates how information is processed, acquired, and acted upon by the employee to make thoughtful and ideal decisions. To be an agile employee, one must be capable of being proactive and adaptive to changes (Snyder & Brewer, 2019), especially in this VUCA world. Further, one must also collaborate in order to promote WA as “collaboration is characterized by autonomy, flexibility, and agile methods” (Harsch & Festing, 2020). In doing so, knowledge and information must be within the means of reach, in which the social media is capable of, leading to better accessibility and availability of the resources. Thus, this study has explored the possibility of SMU to advance WA among teachers in government-aided secondary schools. From the perspective of IPT, it can be explained that this study has proven teachers, also known as the employees of the organization, are able to make wise decisions with the given information and prior knowledge through the use of social media at the workplace; leading to better performance and also agility of the workforce.

### ***Practical Implication***

Given the significance of social media usage in promoting workforce agility, various stakeholders including the Ministry and school leaders must leverage on the rich features that these platforms can cater. Instructions may not necessarily be in written form, but can be appropriately addressed using social media applications for faster delivery. The use of social media also translates to the transformation of communication methods and also the acceptance of the new norm. Further, the change in communication style would assist in achieving and enabling operational flexibility as per stipulated in the MEB 2013-2025. As addressed in the literature earlier, social media is an essential element in for knowledge sharing and information dissemination. It is also imperative to upskill teachers through virtual professional learning community (VPLC) (Alberth et al., 2018). Also, the use of social media should be further studied to see how it can better promote agility in terms of empowerment and building competency. However, it should also be duly noted that there were issues and problems that exist among teachers in the use of social media. Warnick et al. (2016) highlighted teachers were facing difficulties in dividing the use between their personal and professional life.

Thus, despite being very user-friendly, users too must understand the risk of using these platforms and devices. For instance, in DigComp 2.1, one of the competence areas highlighted on safety (Carretero et al., 2017), in which users should learn to protect their devices, personal data, health, and the environment. This connotes users should be competent in these areas in order to prevent such issues that could tarnish their reputations online. The adoption of DigComp 2.1 in this study also establishes as a basis for Malaysia to consider their own national digital competency framework. Law et al. (2018) claimed that Malaysia have been using various frameworks, in which may be difficult to represent the current state of the nation. The initiative of UN to consider DigComp 2.1 as the basis to build Digital Literacy Global Framework (DLGF) is a way forward to for other nations to emulate. A good example would be how Austrians adopted DigComp 2.1 into DigComp 2.2 AT (Federal Ministry for Digital and Economic Affairs, 2018, p. 36).

## **Limitations and Recommendations for Future Study**

As for this study, there are several limitations related to the research methodology. First, despite the advantage of using PLS-SEM, the sample size is rather small in which it may not represent

the teachers across the nation. Further, the scope of the population should also include teachers from government-aided primary schools and to consider other private and international schools. This would provide rich info and perspective on how teachers perceive social media use at their workplace.

Thus, as a way forward for future researchers, PLS-MGA can be included as part of the analysis to compare the significance of social media use between groups (Henseler, 2012). One drawback would be the sufficiency of the data collected for each group; large enough and almost equal among the subgroups (Cheah et al., 2020). Also, other variables such as knowledge sharing and employee empowerment can be included in future research in promoting workforce agility. The study on the role of social media usage can be extended into exploring its role as a mediator in explaining how relevant is SMU in the relationships.

To conclude, this study has extended IPT from the perspective of education sector. Notably, teachers acquire information and knowledge through the use of social media, in which contributes to workforce agility; resulting better job and organization performance. This study has also contributed to the literature of workforce agility where it is scarcely studied, especially in the field of education.

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