Sustainable Consumption Behavior: Converging The VBN Theory & Islamic Values among Muslim Consumers in Malaysia

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Abstract
Purpose: This paper attempts to explore the relationship of Values (altruistic, biosphere, and egoistic), Beliefs (New environmental paradigm, Awareness of the consequences, and Ascription of responsibility), and Norms (Personal norms) and Islamic Values concerning consumer sustainable consumption behavior, specifically on the Muslim consumers.
Design/methodology/approach: The researchers employed a quantitative approach to examine the correlation between VBN and Sustainable Consumption Behavior. This study also incorporates an explanatory approach, aiming to elucidate the impact of values, beliefs, and norms on sustainable consumption behavior. To facilitate this process, a questionnaire has been devised as the primary tool, which has been constructed based on previous studies pertinent to the present research focus. The questions underwent an initial adaptation process based on prior research, followed by a review by industry experts and recognized scholars. Additionally, the face validity of the questions was assessed by potential responders. It is important to acknowledge that the data collection from the respondents employed a non-probability purposive sampling method.
Findings: There is a significant relationship between all variables and sustainable consumption behavior among Muslim consumers in Malaysia.
Research limitations/implications: The generalizability of the conclusions obtained by the non-probability sampling technique employed in this study is uncertain.
Practical implications: The results obtained from this study will contribute valuable information that can offer insights to various organizations, particularly Islamic institutions,

and marketers, to develop an effective strategic plan for Sustainable Consumption Behavior (SCB). This study aims to provide valuable insights for marketers and organizations, enabling them to implement appropriate adjustments in their production processes. The focus will be on promoting sustainable consumption and production practices, ultimately contributing to the achievement of Sustainable Development Goal 12.

Originality/value: By integrating the Islamic Values and VBN Theory, this study offers important and noteworthy insight in explaining the relationship between values, beliefs, and norms and sustainable consumption behavior among Muslim consumers in Malaysia.

Keywords: Sustainability, sustainable consumption, values, and consumption behavior

Introduction

The global community is currently confronted with significant environmental challenges arising from the exponential increase in population figures within developing regions, which has the potential to precipitate a catastrophic disruption of the biosphere. Population growth plays a significant role in the escalation of human activities, such as consumerism, tourism, and various economic endeavours. In light of this, it is widely acknowledged that human activities have been attributed to negative impacts on the three fundamental aspects of sustainability, namely social, environmental, and economic dimensions. Human activities have been identified as the primary cause of various ecological catastrophes, such as climate change, ozone layer depletion, garbage generation, acid rain, and deforestation. Consumption has emerged as a prominent focus among the several factors contributing to human impact on the environment. The purchasing behaviours of consumers in the present period are having detrimental effects on natural environments and posing a threat to the well-being of future generations, both human and non-human alike. As a result, the role of consumption has been acknowledged as a crucial and influential factor contributing to unsustainable development.

Diverse religious traditions exhibit a range of reactions to ecological issues. Gaining insight into the influence of religions on the ecological realm facilitates the cultivation of harmonious coexistence with diverse species and fosters peaceful relations with those adhering to different religious beliefs. Scientists, sociologist, philosophers, and anthropologist made multiple responses from different perspectives. Harmonious living with the rest of creation is the best thing human beings can do amidst the ecological crisis. As vicegerents of God, it is our responsibility to protect creation and be part of God's recreation process. The emergence of religious consciousness vis-à-vis ecological justice demands that faith activist of all religions should recognize "ecological justice" as common responsibility and work together to make this earth a beautiful abode. Since a good environment promises a good life, it becomes imperative for every Muslim to maintain the goodness for life. Iman Jafar Sadiq has said, "There is no joy in life unless three things are available: clean and fresh air, abundant pure water, and fertile soil."

From the Islamic perspective, consumption is viewed as a positive action that would contribute to human well-being (Furqani, 2017). Islam sees consumption as having a moral agenda and noble goal rather than viewing it as a mere wants-fulfilment enterprise in a personal self-pleasure agenda. It means that, the goal of consumption in an Islamic framework is not to gain personal wants satisfaction per se, as such effort would be a waste of time and meaningless. The primary objective of consuming within the Islamic framework is to guide and channel consumption patterns towards the attainment of both individual and societal well-being. Therefore, the Islamic approach expands the discussion on consumption to encompass moral and social dimensions with a spiritual focus (Furqani, 2017), aiming to safeguard and preserve the environment.

Nevertheless, most of the previous research corpus has neglected the influence of psychological variables, including religiosity. Answering the call to consider this psychological determinant, this study aims to explain the vis-à-vis of religiosity specifically Islam, and sustainable consumption. The present study focused on Islam, as Malaysia is categorized as a Muslim-dominated country. A comprehensive research framework is proposed in this study, which is developed through a thorough and in-depth discussion.

Literature Review
Sustainability and Sustainable Development
The concept of sustainability has been historically associated with ecosystems for an extensive period. For example, fisheries managers have long used the concept of the maximum fish catch per year consistent with a stable fish population. In addition, in 1972, at the United Nations' Conference on the Human Environment in Stockholm, the challenge of maintaining sustainability in the context of economic growth and development was first brought to the global forefront (Sachs, 2015). The concept of sustainable development gained prominence through its inclusion and promotion in the report of the United Nations' Commission on Environment and Development (UNCED), commonly referred to as the Brundtland Report, named for its Chairperson, Gro Harlem Brundtland. The Brundtland Commission provided a seminal concept of sustainable development, which has been widely employed during the subsequent quarter-century. The concept of sustainable development can be defined as a form of development that effectively addresses the immediate demands of the current generation, while also ensuring that the ability of future generations to fulfil their own needs is not compromised (Brundtland, 1987).

Since its inception, sustainability and sustainable development have emerged as a prevalent development paradigm. It has become a widely used term among international aid agencies, development planners, conference organizers, and academic researchers., as well as the slogan of development and environmental activists (Ukaga, Maser, & Reichenbach, 2011).

Sustainable Consumption
Consumption of everyday goods has an enormous impact on the environment. The environment has been threatened by human activities, including solid waste generation and recycling. If consumers do not change their current lifestyles and be the agent of change, they would be a potent impediment to achieving a high quality of life. For the last decades, eliciting environmentally sustainable consumer behavior has been a vital topic that has an increasing attention in the consumer marketplace and academia (Dong et al., 2020).

Environmentally sustainable consumer behavior, which the alternative term is environmentally responsible consumer behavior, is hard to pin down when defining it. Therefore, such terms as sustainable consumption (Brundtland, 1987), environmentally responsible behavior (Kaiser, Ranney, Hartig, & Bowler, 1999), environmentally sustainable behavior (Clayton & Myers, 2009), environmental protective preserving behavior (Krajhanzl, 2010), ecological behavior (Kaiser et al., 1999), and green behaviors (Han, 2020) are often utilized as equivalent for pro-environmental behaviors.

Sustainable consumption is frequently regarded as synonymous and interconnected with various concepts such as ecologically responsible behavior, environmentally friendly behavior, ethical consumption, green consumption, pro-environmentally friendly behavior, ethical consumption, green consumption, pro-environmental behavior, environmentally significant behavior, ecological behavior, and responsible consumption. In broad terms, sustainable consumption can be characterized as the utilization of resources and energy, either in a direct manner by end-users or in the production of goods and services intended for their use. In brief,

sustainable consumption pertains to the adoption of environmentally friendly consumer behavior that deliberately aims to minimize the ecological consequences of consumption, with the goal of achieving sustainability and safeguarding the well-being of future generations.

VBN Theory

The VBN theory proposes a causal chain of variables, going from basic, general values and belief to behavior-specific beliefs to norms to behavior. According to the VBN theory, general values are related to a person's environmental concern, as reflected in the new environmental paradigm (NEP). As such, the values people hold are indicative of how they perceive themselves in relation to the environment.

As a next step, environmental concern is related to the extent to which individuals believe their own behavior has negative environmental consequences (i.e., awareness of consequences). People with a stronger concern for the environment will be more aware of the environmental impact of their actions. Next, the more people are aware of these consequences, the more likely it is that they will assume responsibility for environmental problems (i.e., ascription of responsibility). In turn, feelings of responsibility will lead to the activation of personal norms (moral obligation to act). Feelings of moral obligation are assumed to be positively related to willingness to act pro-environmentally and actual pro-environmental behaviours.

Prior empirical research repeatedly provides empirical evidence for the predictive power of VBN clusters of variables on various pro-environmental behavioral indicators. Therefore, it has received substantial recognition and is widely used to test the relationships among individuals' values, attitudes, and beliefs, and various types of pro-environmental behavior including, recycling, energy conservation and sustainable waste management.

Methodology

The current study employed a quantitative methodology to collect and analyze the necessary data. The research respondents were exclusively chosen from the Muslim consumer population, without regard to their age or generational cohorts, including Baby Boomers, Generation Y, and Millennials in Malaysia. The current study also utilized non-probability purposive sampling.

The utilization of purposive sampling is considered suitable for implementation in this research, as participants have been deliberately chosen based on their skill and knowledge within the pertinent domains. A total of 109 questionnaires were distributed for the pilot study and all the data gathered were analyzed using SPSS Version 28.0.

Findings

Table 1 depicted the results of demographic profile of the respondents.

Table 1: Demographic Profile

Criteria	Category	Number	Percentage
Gender	Male	26	23.8%
	Female	83	76.1%
Year of Birth	1945 – 1964 (Baby Boomers	22	20.2%
	1965 – 1985 (Generation X)	46	42.2%
	1986 – 2000 (Millennials)	41	37.6%
Education Level	STPM/Matriculation/Foundation	4	3.7%
	SPM/SPMV	7	6.4%
	Doctorate (PhD)	13	11.9%
	Diploma	22	20.2%
	Master's Degree	25	22.9%
	Bachelor's Degree	38	34.9%
	B1: Less than RM2,500	22	20.2%
	B2: RM2,501 – RM3,170	10	9.2%
	B3:RM3,171 – RM3,970	10	9.2%
	B4: RM3,971 – RM4,850	13	11.9%
Monthly Income	M1: RM4,851 – RM5,880	12	11.0%
	M2: RM5,881 – RM7,100	11	10.1%
	M3: RM7,101 – RM8,700	7	6.4%
	M4: RM8,701 – RM10,970	7	6.4%
	T1: RM10,971 – RM15,040	11	10.1%
	T2: More than RM15, 041	6	5.5%
Household Income	B1: Less than RM2,500	12	11.0%
	B2: RM2,501 – RM3,170	6	5.5%
	B3:RM3,171 – RM3,970	8	7.3%
	B4: RM3,971 – RM4,850	8	7.3%
	M1: RM4,851 – RM5,880	5	4.6%
	M2: RM5,881 – RM7,100	13	11.9%
	M3: RM7,101 – RM8,700	10	9.2%
	M4: RM8,701 – RM10,970	10	9.2%
	T1: RM10,971 – RM15,040	15	13.8%
	T2: More than RM15, 041	22	22%
Employment Status	Government Sector	31	28.4%
	Housewife	7	6.4%
	Private Sector	30	27.5%
	Retiree	23	21.1%
	Self-Employed	16	14.7%
	Semi-Government	2	1.8%
Residing Area	Rural	1	0.9%
	Sub-Urban	32	29.4
	Urban	76	69.7
Attended Environmental Related Seminar	No	45	41.3%
	Yes	64	58.7%
Environmental Organization Membership	No	98	89.9%
	Yes	11	10.1%

Table 2: Pearson Correlation Between Values, Beliefs, Personal Norms and Sustainable Consumption Behavior

Variable	Consumer Complaint Behavior	
	R Value	Sig. (1 tailed) (p)
Altruistic Values	.333**	<.001
Biospheric Values	.570**	<.001
Egoistic Values	.237**	.007
Islamic Values	.333**	<.001
New Environmental Paradigm	.397**	<.001
Awareness of Consequences	.424**	<.001
Ascription of Responsibility	.451**	<.001
Personal Norms	.572**	<.001

**Correlation is significant at the 0.01level (1-tailed)*

Table 2 depicted the results of the Pearson Correlation for each variable involved in the present study. First, the relationship between altruistic values and sustainable consumption behavior is relatively weak (r=.333, p=<.001). The value of 0.333** suggest that as one variable increases, the other tends to increase as well, but the relationship is not very strong. Second, the relationship between biospheric values and sustainable consumption behavior. It must be noted that the strength of relationship between these two variables considered moderately strong, which is greater than 0.5 (r=.570, p=<.001). As one variable increases, the other tends to increase as well, and the relationship is relatively strong. Third, the relationship between egoistic values and sustainable consumption behavior. Based on the results presented in Table 2, it shows that the r value is 0.237**. The results suggested that there is a positive linear relationship between the two variables. However, the strength of this relationship is relatively weak. The p value being less than 0.007 suggests that there is evidence to support the existence of a true correlation is the population.

Next is the relationship between Islamic Values and Sustainable Consumption Behavior. It shows that there is a positive linear relationship (r=.333, p=<.001). However, the relationship between these two variables is relatively weak. Meanwhile the relationship between New Environmental Paradigm (NEP) and Sustainable Consumption Behavior is considered moderate (r=.397, p=<.001). This suggests that changes in one variable are associated with consistent changes in the other variable in a positive direction, and this relationship is unlikely to be a result of random variation. In addition, with regards to the relationship between Awareness of Consequences and Sustainable Consumption, it could be considered moderately strong positive linear relationship (r=.424, p=<.001).

The findings also conclude that there is a positive linear relationship between Ascription Responsibility and Sustainable Consumption Behavior (r=.451, p=<.001). The p-value being less than 0.001 is highly significant. This implies that changes in one variable are associated with consistent changes in the other variable in positive direction. Lastly, the relationship between Personal Norms and Sustainable Consumption Behavior. The results suggest that there is a strong positive linear relationship between these two variables (r=.572, p=<.001).

Multiple Linear Regression Analysis
Multiple linear regression was conducted to predict sustainable consumption behavior on five (5) independent variables which are values (altruistic, egoistic, biosphere and Islamic), New Environmental Paradigm (NEP), Awareness of Consequences, Ascription of Responsibility (AOR) and Personal Norms (PN). However, Islamic Values, Altruistic, NEP, AOR and AC

were dropped in the regression as there are no significant relationship with sustainable consumption behavior. The results of the analysis are shown in Table 3.

Table 3: Multiple Linear Regression Test

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.626	.684		.915	.362		
	Personal Norms	1.066	.148	.572	7.214	<.001	1.000	1.000
	Dependent variable: Sustainable Consumption Behavior R2 =0.327, Adjusted R2 =0.321, Sig.=0.000							
2	(Constant)	-.584	.748		-.781	.436		
	Personal Norms	.645	.189	.346	3.402	<.001	.556	1.800
	Biosphere Values	.677	.203	.339	3.336	.001	.556	1.800
	Dependent variable: Sustainable Consumption Behavior R2 = 0.391, Adjusted R2 =0.380, Sig. =0.000							
3	(Constant)	-1.069	.768		-1.391	.167		
	Personal Norms	.634	.186	.340	3.405	<.001	.555	1.801
	Biosphere Values	.644	.200	.323	3.220	.002	.552	1.810
	Egoistic Values	.193	.089	.163	2.170	.032	.984	1.016
	Dependent variable: Sustainable Consumption Behavior R2 =0.417 , Adjusted R2 =0.401, Sig. =0.000							

As depicted in the Table 3, Model 1 exhibits that personal norms significantly predicts sustainable consumption behavior, β=1.066, and p<0.01 (F (1,107) = 52.045, p < .001), with the R2 of .321. It means that 32.1% of sustainable consumption influenced by personal norms. Next, Model 2 showed there is a collective significant effect between sustainable consumption behavior and personal norms and biosphere values (F (1,106) = 34.051, p < .001), with R2 of .380. It means that 38% of sustainable consumption behavior is influenced by personal norms and biosphere values, while another 62% of that is from the factors which are outside of the model. Moreover, Model 3 showed that there was a collective significant effect between sustainable consumption behavior and all three independent variables including personal

Discussion and Conclusion
This study aims to contribute to the emerging literature of research by integrating the VBN Theory and Islamic Values to explain sustainable consumption behavior among Muslim consumers in Malaysia. Based on the research findings, the knowledge will provide benefits to government, agencies, marketers, and other related international organizations to promote sustainable consumption behavior to mitigate climate change. The findings from this study can be used to formulate the action plans in promoting sustainable consumption behavior as new lifestyle to ensure sustainable future as well to develop sustainable society.
Demographically, more than half of the respondents were female (76.1%), and 42.2% percent of the respondent were from Generation X, followed by 37.6% from Millennials group and 20.2% were from Baby Boomers. In addition, most of the respondents were degree holders (34.9%). With regards to monthly income, more than half of the respondents were from the B40 groups.
The findings found a significant relationship between all the variables involved in this study and sustainable consumption behavior among Muslim consumers in Malaysia. It means that all the hypotheses shall be accepted. This study is aligned with the previous study conducted by Whitley at al., (2018) who revealed that values play a stable function in predicting consumers'

sustainable behavior. Theoretically, values could motivate and influence behavior, including religious values (Hassan, 2014). Additionally, religion teaches values that act as guiding principles for one's life.

Theoretical Implications
Theoretically, this study will provide benefits for students and professionals, such as researchers and academicians on the critical issues concerning sustainable consumption behavior. This research will help them to gain a better understanding of the underlying theories of SCB. Besides, this study helps in examining the sustainability of the theories selected in explaining SCB in Malaysian context as the previous studies suggested that such study needs to be replicated to test its generalizability on other setting.

Practical Implications
Findings from this study will help to provide information that would yield insights to the organizations and marketers in forming a plan of action on SCB. This study will help the marketers and organizations to make necessary amendments in production that focus on sustainable consumption and production.

Limitation and Future Research
Although this study has been able to fill the contextual and theoretical gaps, there are limitations worth noting in this research. First, findings from the non-probability sampling technique used in this study cannot be certainly generalized to the whole population. However, although the generalizability of the non-probability sampling techniques is very restricted, they have certain advantages and sometimes the only convenient and practical way in obtaining the appropriate respondents for a study (Sekaran & Bougie, 2016).

Acknowledgements

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