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Research paper

The Antecedents of Halal Consumption Pattern: The Mediating Role of Muslim Lifestyle, Risk Perception and Trust

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Abstract

Halal food industry globally experiencing rapid growth which is estimated at USD 2.3 trillion (RM8.3 trillion). Although the halal food market is a fast growing situation, Muslims were sometimes doubtful to consume halal food due to alleged contamination with non-halal ingredients. The question arises of how the specified factors explain halal food consumption. Thus, this paper aims to examine the factors that may influence halal food consumption mediated by risk perception, trust and Muslim lifestyle. Quantitative study has been conducted which consists seven variables measured by a total of 57 Items using seven-point Likert-scale. For this study, data were collected using 240 questionnaires from household consumers. Partial least squares (Smart PLS) were used to analyze the collected data. The ultimate finding implies that all independent variables of halal nutritional knowledge, halal consciousness, green halal consumption and mediator of Muslims lifestyle, risk perception and trust have a significant impact on the halal consumption pattern. Moreover, Muslim lifestyle and risk perception have mediate influence between green halal consumption and halal consumption pattern. As a result, the consumers who choose to consume halal product are practicing green in their consumption. Food and product selection are important for them in order to avoid non-halal food/products which believed this matter aligned to be a good Muslim. Living based on Muslim Lifestyle help to monitor their halal consumption pattern. The finding suggests that producers, including green products producers need to abide to good manufacturing practice to ensure their halal business success.

Keywords: *Halal consumption pattern, health consciousness, risk perception, lifestyle*

1. Introduction

Halal food refers to permitted food which contains no pork and unlawfully slaughtering not in accordance with Islamic procedures. Consume halal food is essential for each Muslim. However, the issue of food consumed that contaminated with non-halal ingredients or product which claimed to be halal became critical in halal food and products market especially for Muslim consumer that were doubtful in their consumption. In fact, this issue has been abused and faked of halal logos. In Malaysia, halal logo must be issued by the Department of Islamic Development (JAKIM/JAIN/MAIN), where each halal food producer must comply with halal regulations on slaughtering, ingredients, processing methods as their premises, packaging, labelling, and cleanliness of production equipment at the premises. All food must be halal and finished food produced must be sent to the halal laboratory to be tested annually. However, several cases of non-halal performance and logo-faking is still occurring. This matter caused anxiety in terms of trust towards the halal products in the market among the Muslim consumers. It is appropriate to conduct this research due to the occurring issues. Next, research question is how do the determinant factors explain halal consumption pattern, and how Muslim lifestyle and trust mediate the linkages specified? The main objective of the specific factors (halal nutritional knowledge, halal consciousness, green halal consumption, risk perception, trust and Muslim lifestyle) on the halal consumption pattern as well as investigating the mediating role of risk perception, trust and the Muslim lifestyle on the said linkage.

2. Literature review

2.1. Halal Consumption Pattern

Islam has already outlined the halal (lawful) and the haram (prohibited) food that can be consumed by Muslims. Halal consumption pattern (HCP) is an Islamic unique way of using, eating or drinking halal food/drinks. This is in line with God's command: "Oh mankind! Eat from the earth that which is halal (lawful) and toyyib (good)" (Quran 2:168). Food is considered haram or unlawful for Muslims when it contains pork, blood, dead meat and alcohol (Quran 2:173:219; 16:114:116). Previous empirical consumption pattern models were not specifically on halal issues, timeworn and western origin (Hawkins, Roupe & Coney, 1981; Rokeach, 1973; Veenma, Kistemaker, Lowik & Hulshof, 1995). There are few recent Asian halal studies on behavior were conducted in Indonesia, using the original variables based solely on the theory of planned behavior (Soesilowati, 2010). Others focused on general health food studies (Yeung, Yee & Morris, 2013; Kim, Lee, Kim & Kim, 2012). Few empirical halal studies focused on halal meat chain only. (Bonne & Verbeke, 2008; Mei & Carol, 2017; Romi, 2014). Hence, this study intends to close the gaps in enriching studies on the halal food consumption pattern.

2.2. Antecedents of Halal Consumption Pattern

This study distillates six antecedents of halal consumption pattern based on previous empirical studies namely: halal nutritional

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knowledge (Delvarani, Ghazali & Othman, 2013); health consciousness Al-Harran & Low, 2008; Shaharuddin, Pani, Mansor, Elias & Sadek, 2010); Olynk Widmar, Byrd, Wolf, and Acharya, 2016; Chen, 2013); green consumerism (Dangelico & Pontrandolfo, 2010); Sharma & Joshi (2017); Muslim lifestyle (Kim et al., 2013; Evans & Berman, 2007; Veenma et al., 1995; Well & Tigert, 1971; [24] Kotler & Armstrong, 2013); perceived risk (Finucan & Houlp, 2006); and trust [11] (Kim, et al., 2013).

2.3. Halal Nutritional Kowledge

Nutritional knowledge is a list of nutritional information written as nutrient labeling outside its food packaging. In the same study, nutritional knowledge was found to have insignificant impact on the intention to use menu labeling at restaurants (Delvarani, et al., 2013; Lee, Conklin, Cranage & Lee, 2014). Few past empirical studies found positive relationship between patterns of reading food label with health awareness (Kempen, Muller, Symington, & Van, 2012; Gibson, Wardle & Watts, 1998; Hendrie, Conveney & Cox, 2008). Despite that, greater nutrition knowledge lead to the positive attitude in vegetables and fruit intake (Hendrie, Conveney & Cox, 2008, Gibson, Wardle & Watts, 1998). Other study indicated that Muslim awareness of labeling (Halal logo, ingredients and nutrient) did effected their purchasing (Zul, Zainal, Golnaz & Nitty, 2013). Thus, there are still very few studies examining nutritional knowledge and halal consumption behavior pattern, this support the necessity to examine this relationship in this study.

2.4. Health Consciousness

Health consciousness (HC) of Muslim consumers demands healthy, halal and quality food which must conform to Islamic legal (*Shariah*) requirement (Al-Harran & Low, 2008; Shaharudin et al., 2010). Invariably, Muslim consumers are required to eat halal food and avoid eating prohibited food in Islam as eating halal food ensures better healthy life and halal food would be able to portray good attitudes and behaviors (Yousef, 2010; Nor, Tunku, & Mohd 2013). Health consciousness defined as "the tendency of focus attention on one's health" (p.603) (Iversen and Kraft, 2006). Past empirical studies on health consciousness were focused on purchasing organic food which not related to halal food (Chen, 2009; Basha et al., 2015; Abdul, 2009; Salleh, 2010; Shamsollahi, Chong and Nahid, 2013; Michaelidou and Hassan, 2008). Other previous empirical research were focused on health consciousness in eating green food (Smith and Paladino, 2010). These past empirical studies not emphasized on halal field. Other past studies focused on health awareness on halal food rather than health consciousness (Nor, Tunku, & Mohd 2013). Since there are still very few studies examining health consciousness and halal consumption behavior pattern, this is a good opportunity to examine this relationship in this study.

2.5. Green Halal Consumption

According to Dangelico and Pontrandolfo (2010), green consumerism is defined as using a product which is ecological features, politic, have corporate social responsiveness, fair trade, conservation, non-profit, new consumerism, sustainability and equity. In simple words, green consumerism is considered as the usage of those products which strive to protect or conserve the natural resources, reducing or eliminating the use of toxic substance, pollution and waste (Othman, 2006 cited in Gunawardena, 2012). There are numerous past empirical studies on purchase intention towards green product. [41] (Bouwmann & Schnierder, 2017; Maichum, Parichatnon and Peng, 2017; Ritter et al., 2015; [44] Lee, 2009, Ansar, 2013). Green purchasing refers to the purchase of environmentally friendly products and avoiding products that harm the environment (Chan, 2001). Other past studies were focused on positive attitude towards green product. (Mobrezi and Khoshtinat, 2016; Ritter et al., 2015; Tanner and Kast, 2003). However, there are lack of study which are focus more on halal green consumption. Hence, this study intends to close the gaps in enriching studies on the green halal food consumption context.

2.6. Muslim Lifestyle

Islam is not only a religion but also a way of life, thus, Muslim lifestyle is a way a life (Salehudin & Luthfi, 2011). Conventionally, consumer lifestyle represents the way in which a person lives, spends time and money. It is based on the social and psychological factors that have been internalized by that person-as well as his or her demographic background (Evans & Berman, 2007, p. A-29). In marketing, consumer lifestyle is used for lifestyle segmentation (Well & Tigert, 1971). Muslim lifestyle is the way a Muslim person lives, spend time and money according to the five pillars of Islam, i.e. faith, prayers, charity, fasting, and pilgrimage to Mecca (http://www.oxfordislamic studies.com). Past empirical studies found that lifestyle influencing factor for Muslim confidence level in selecting halal restaurant in Malaysia (Shaari, Khalique and Malek, 2013; Shaari, Khalique and Aleefah, 2014). However, lack of studies on Muslim lifestyle and halal consumption pattern in literature. Thus, this study intends to close the gaps in enriching studies on the green halal food consumption context.

2.7. Risk Perception

People's judgment and evaluations of hazards (or their facilities, or environments) or they might be exposed to, are called "risk perception". Risk perceptions are interpretations of the world, based on experiences and/or beliefs. They are embedded in the norms, value systems and cultural idiosyncrasies of societies (Finucan & Houlp, 2006). Risk perception is a decision maker's assessment of the risk inherent in a situation (Sitkin and Pablo, 1992). Risk perception influenced by dread, unknown and number of people exposed to risk (Slovic, 1987; Sparks and Shepherd, 1994; Raats and Shepherd, 1996; Miles, 1999; Miles et al., 1999). Other research show risk perception mediate influence on individual risk taking behavior (Sim and Laurie, 1995). Most past empirical research study on risk perception as mediator in food field (Labrecque and Charlebois, 2011; Frewer, Cholderer and Bredhal, 2003). Until to date, limited empirical research is available on risk perception mediates towards halal consumption behavior pattern. Thus, this study intends to close the gaps in enriching studies on the halal food consumption context.

2.8. Trust

Trust is defined as consisting of three ingredients: credibility (integrity), benevolence and reliability (Chen & Chang, 2013). In the perspective of halal food consumption, halal product sold in the market has been expected to have all the three ingredients for the products to be trusted. However, this is not like the case. Cases of falsified claims by food producers are on the rise. This casts distrust among the consumers of the halal food. Lack of customer trust and confidence influencing purchase of green products (Bang et al, 2000; Fotopoulos and Krystallis, 2002; Gupta and Ogden, 2009; [Tung et al., 2012). Other previous research found that green trust mediate the relationship between green perceived value and green perceived risk towards purchase intention (Chen & Chang, 2013). There are few studies on trust as mediating factor in halal consumption pattern. Hence, this study intends to close the gaps.

2.9. Underpinning Theory

The underpinning theory that this research model is based on is the buying behavior model (Kotler & Armstrong, 2013). This model suggests that the consumer decision behavior to purchase or consume is alleged to be initially influenced by the consumer's personal characteristics such as nationality, ethnicity, religion, age, gender, life cycle, occupation, economic standing, lifestyle, personality and self. Next, the consumption pattern is also influenced by consumers" psychological characteristics such as attitudes, beliefs, perception, motivation and learning. In this study, buyers purchasing behavior are equated to consumption behavior based on the operational definition of the concepts in various previous studies (Kim et al., 2013; Lowik & Hulshof, 1999; Noble et al., 2009; Soesilowati, 2010).

3. Methodology

This study adopts the quantitative research design to examine the interaction between seven variables: three independent variables (halal nutritional knowledge, halal consciousness, and green halal consumption); three mediating variables (Muslim lifestyle risk perception and trust) and one dependent variable (halal consumption pattern). All variables are measured by 54 statements obtained from previous studies, using 7-point Likert-scale. A total of 240 data was data was collected from Muslim consumers in the North Malaysia. The data were analyzed using Partial Least Square or Smart PLS.

4. Findings

The factor loadings of the construct achieved satisfactory value where for halal nutritional knowledge, the result ranged from 0.678 to 0.887, health consciousness ranged between 0.747 and 0.914 and green halal consumption is ranged between 0.819 and 0.886. Meanwhile, the measurement items for Muslim lifestyles, risk perception, trust and halal consumption pattern constructs achieved satisfactory loadings at above 0.6 (Appendix). Hypothesized model as illustrated in Figure 1 indicates that each variable maintains an acceptable level of Cronbach alpha reliability and composite reliability of above 0.8 (Table I). Hence the measurement scale utilized has a high level of scale consistency. The result of Average Variance extracted (AVE) also indicates the absence of multi-collinearity. (Table II).

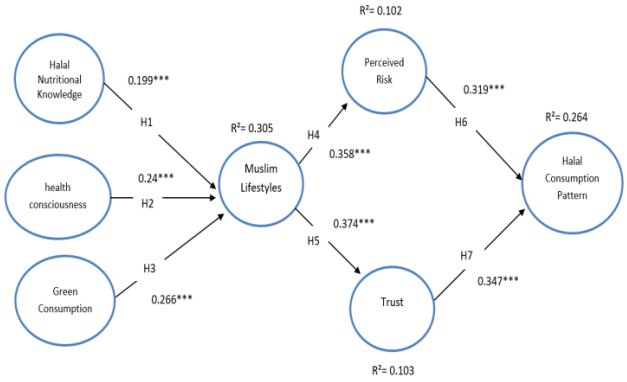


Fig 1: Hypothesized Model of Halal Consumption

Table I: Descriptives statistic and reliability of constructs. (N=240)

Variables	No of Items	Mean	SD	Composite Reliability	AVE
Halal Nutritional Knowledge (HNK)	7	5.61	1.012	.934	.818
Health Consciousness (HC)	6	5.573	0.910	.934	.838
Green Halal Consumption (GHC)	6	5.195	0.796	.946	.862
Muslim Lifestyle (MCL)	9	5.509	0.955	.920	.769
Risk Perception (RP)	12	5.400	1.063	.932	.734
Trust (TST)	6	5.778	1.017	.945	.861
Halal Consumption Pattern (HCP)	11	6.247	0.807	.944	.778
Total	57				

Table II: Correlation among research constructs

	HNK	HC	GHC	ML	RP	TST	HCP
HNK	**0.818**						
HC	0.47	**0.838**					
GHC	0.614	0.464	**0.862**				
ML	0.466	0.432	0.467	**0.769**			
RP	0.46	0.294	0.41	0.319	**0.734**		
TST	0.286	0.439	0.397	0.321	0.194	**0.861**	
HCP	0.373	0.429	0.49	0.517	0.384	0.409	**0.778**

Bold diagonal elements are the square root of AVE (Average Variance Extracted, which should exceed the off-diagonal inter-construct correlations for adequate discriminant validity

The hypothesis testing indicated by the direct standardized beta coefficients produced seven significant paths: halal nutritional knowledge is related significantly to the Muslim lifestyle (β=0.199; t=2.708; p > 0.01); halal consciousness is related significantly to the Muslim lifestyle (β=0.240; t=3.468; p > 0.01); green halal consumption is related significantly to the Muslim lifestyle (β=0.266; t=3.357; p > 0.01). Similarly, Muslim lifestyle is related significantly to both risk perceptions (β=0.358; t=5.932; p > 0.01) and trust (β=0.374; t=6.177; p > 0.01) (Table III). Lastly, risk perception significantly influences halal consumption pattern (β=0.319; t=4.837; p > 0.01) and trust significantly influences halal consumption pattern (β=0.347; t=6.024; p > 0.01) (TABLE III).

Table III: Direct path coefficients

Hypotheses	Relationship	Standardized Beta	T Statistics	Sig Status
H1	HNK → MCL	0.199	2.708	Sig
H2	HC → MCL	0.24	3.468	Sig
H3	GHC → MCL	0.266	3.357	Sig
H4	MCL → RP	0.358	5.932	Sig
H5	MCL → TST	0.374	6.177	Sig
H6	RP → HCP	0.319	4.837	Sig
H7	TST → HCP	0.347	6.024	Sig

Table IV: R^2 OF DEPENDENT PATHS

	R Square Value
HCP	0.264
MCL	0.305
RP	0.102
TST	0.103

The final model shows that the variables explain 26.4 % variance in halal consumption pattern, 30.5% variance in Muslim lifestyle, 10.2 % variance in risk perception and 10.3% variance in trust. These readings indicate an acceptable explanatory level for behavioral model study (TABLE IV).

The mediating results indicate that only one relationship is significant. From table V, Muslim lifestyle and risk perception mediate

the relationship between green consumption halal and halal consumption pattern at (β=0.023; t=2.002). (TABLEV).

Table V: Mediating effects results

Hypothesis	Relationship	Standardized Beta	T- Statistic	Sig Value
H8	HNK→MCL → RP→HCP	0.022	1.70	Not Sig
H9	HC→MCL → RP→HCP	0.022	1.615	Not Sig
H10	GCH→MCL → RP→HCP	0.023	2.002	Sig
H11	HNK →MCL → TST →HCP	0.25	0.309	Not Sig
H12	HC →MCL →TST →HCP	0.011	1.078	Not Sig
H13	GHC →HCL→ TST →HCP	0.024	2.308	Not Sig

5. Discussion

The study found three significant direct predictors of halal consumption pattern, which are Muslim lifestyle, trust and risk perception. The findings of a significant relationship between Muslim lifestyle and halal consumption pattern have found consistent in previous studies [50] (Salehudin & Lutfi, 2011; [11] Kim et al., 2013). The findings imply that regardless risk consumers encounter in their consumption, Muslim consumers who are religious and abide by the rules of Islam were concerned with halal and haram in their consumptions. Therefore, they believed that trust plays a significant role in their daily consumptions. This finding also signified that Muslim consumer who adopt Islamic teachings in their lifestyle, aware with the risk of the foods and products in the market. However, with the efforts made by [2] JAKIM, they believed the current foods and products are trusted aligned with strict endorsement by [2] JAKIM.

Similarly, the significant linkage between Halal nutritional knowledge and Muslim lifestyle have been supported by the previous findings ([68] Hassan, 2011). Halal nutritional knowledge plays an important role in influencing functional food preferences; therefore, in this model, it comprises current Muslims consumer knowledge concerning halal nutritional food and the capacity to ascertain the necessary information to make an informed decision regarding food choice. In addition, the findings also revealed the significant linkage between halal consciousness, green halal consumerism and halal consumer pattern. This finding consistent with [69] Rezai, et al. (2012) and [70] Young, Hwang, McDonald & Oates (2010). Obviously, Muslim consumer who practicing Islamic teaching in their lifestyle was concern in halal and haram foods and products.

The indirect results show the mediating roles of Muslim lifestyle, perceived risks and trust between most linkages. The findings indicate a Muslim lifestyle and perceived risks play a mediating role only in halal green consumption and halal consumption pattern linkages. This could imply that Muslim consumer who concerns about green consumption tend to be very vigilant and careful in their selection of halal food for consumption in order to avoid the risk of taking non- halal foods or products.
There is no compromise on consuming halal and good healthy food at all times of purchase. These mediating roles have found little support in past studies due to its newness of the topic. Hence, more future research needs to be conducted on this aspect to counter or agree with these findings.

6. Recommendation

The findings suggest that halal green consumerism, Muslim lifestyle and risk perception play a vital role in ensuring adherence to the halal consumption pattern. Consumers are advised to uphold and increase their knowledge in Islamic religion and non halal derivatives as well to practice the Muslim lifestyle. By doing that, their faith could not be waived by the presence of non halal products. Additionally, Muslim consumers need to aware of the healthy, halal and quality foods and products in their consumption to ensure healthy lifestyles and abide by with the Islamic teachings and requirements. In addition, producers including green producer should aware and coherent with the non-halal ingredients to concoct better products for consumers. It is also useful for both consumer and producer to check with the authorities regarding the status of dubious food, product and ingredient present in the market.

7. Conclusion

The mission of this study is to examine the direct antecedents of the specific factors (halal nutritional knowledge, halal consciousness, green halal consumption, risk perception, trust and Muslim lifestyle) on the halal consumption pattern and to investigate the mediating role of risk perception, trust and the Muslim lifestyle on the said linkages. The first objective was answered when this study found three significant direct predictors of halal consumption pattern, which are Muslim lifestyle, religiosity and halal labeling. The second objective was achieved when the indirect results show the mediating roles of Muslim lifestyle and trust between green halal consumerism and halal consumption pattern linkages.

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Appendix

Measurement items

Items
Halal Nutritional Knowledge
I usually pay attention to nutrition information regarding halal product I consume
I use nutrition information on the label when making most of my halal food selection.
I spend much time in the supermarket reading nutrition information on halal product.
I read about nutrition of halal product in magazines/books.
Polyunsaturated margarine contains less fat than butter
There is more calcium in a glass of whole milk than a glass of skimmed milk.
I am aware of any major health problems or diseases that are related to a low intake of fruit and vegetables.
Health Consciousness
I am concerned about my drinking water quality.
I usually read the ingredients on halal food labels.
I read more health-related articles than I did 3 years ago.
I am interested in halal information that will affect my health.
I am concerned about halal nutritional information stated on food labels.
Green Halal Consumerism
It is important to me that green halal product I used do not harm the environment.
I am concerned about wasting the resources of our planet (Halal food resources).
I have chosen to consume halal products which have little or no contamination to man and animals.
My family and I will always consider halal green consumerism in our daily life activities
I will intentionally boycott manufacturers who are not conscious of the halal green consumerism in their production activities.
My purchase habits are affected by my concern for the green halal product.
Muslim Lifestyles
I shop for special Muslim halal food products.
I find myself comparing the prices of the halal food items.
I usually watch the advertisements for the announcement of halal food sales.
A person can save a lot of money by shopping around for halal and bargains.
I often try new halal food stores before my friends and neighbours do.
I am sometimes influenced what my friends buy for halal food products.
I spend a lot of time talking with my friends about halal food products and brands.
People come to me more often than I go to them for information about halal food brands.
I usually watch the advertisements for best buy Halal campaigns.
Risk Perception
Taking a non halal food could lead to Hypertension
Taking a non halal food could lead to death
Taking a non halal food could lead to nausea
Taking a non halal food could lead to Cancer
Taking a non halal food could lead to Diabetes
Taking a non halal food could lead to non-religious behavior
I fear from eating non halal food product
I fear of suffering any disease or infection from eating non halal derivatives.
I fear my family and I will resist religious duties due to eating non halal products.
I fear eating non halal food product unknowingly.
There is a big risk to health if I keep eating non-halal product unknowingly.
There is a possibility that with regulated halal industry that I will still consume non-halal food product.
Trust
I trust halal food sold in the stores/mall
I feel that I can rely on the halal food logo stated on the product labels.
I believe that the halal producer is honest.
I trust the halal food pricing system.
The halal food product producer is reliable because it is mainly concerned with the customer's interest.
The halal food company keeps its promises to ensure halalness of products.
Halal consumption pattern
I only buy halal food products I trust.
Buying Halal food products give me a lot of pleasure.
My life could be better if I could buy certain Halal food products I do not currently own.
I would be happier if I could afford to buy more halal food products.
I like to buy Halal food to feed my family.
I intend to buy the halal food product frequently.
I plan to buy the halal food product more often.
Whenever available, I would prefer to buy the Halal food product.
I don't mind paying more for the Halal food product.
I would recommend the Halal food product to others.
I prefer halal food product in all shopping malls.