Non-Muslims' awareness of Halal principles and related food products in Malaysia

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Abstract: Although the Halal concept has not been a major element among non-Muslim consumers living in an Islamic country, whether the non-Muslim consumers are aware of the underlying advantages that come with Halal food products or their viewpoints arising from their religious belief, are some intriguing questions that need to be answered. Thus the objective of the study explore the underlying determinants that are likely to influence non-Muslim consumers' perceptions and attitudes towards Halal concept and Halal food products in Malaysia in lieu of new paradigm in emerging global issues on sustainability, environmental, food safety and animal welfare. A survey was conducted in the Klang Valley where 400 non-Muslim respondents were interviewed via structured questionnaires to gather information on their awareness and attitude towards Halal food products in the Malaysian food market. Descriptive statistic was used to identify the socio-economic/demographic characteristics and attitudes of the respondents toward the Halal food principles. The logit model was used to determine the extent to which selected socio-economic/demographic characteristics influenced the respondents' attitude and understanding on Halal principles and Halal food products. The results of this study suggest that non-Muslim consumers are aware of the existence of Halal food, Halal principles and the advantages of Halal way in slaughtering the animals. This can be shown by their significant awareness that Halal is not only the way Muslim slaughter their animals but also relates to environmental, sustainability, animal welfare and food safety. In general, various socio-economic/demographic factors such as education level, older generation, those who are more religious and the urban dweller seem to more likely to be aware of the advantages of Halal principles.

Keywords: Halal food, demographic characteristics, Halal principles, non-muslim, Logit model

Introduction

Halal, which means "permissible" or "allowed" in Arabic, is essentially a way of life and is not solely confined to the types of food that a Muslim is allowed to consume, though food is a vital component for the sustenance needed to lead a meaningful life. The bottom line is that Halal food is not just about what the food is but how it is prepared. The Halal concept emphasizes safety, hygiene and wholesomeness of food. It also provides an excellent platform for healthy eating. Consideration of the place and process of the animals being slaughtered and most importantly, the condition of these animals would not endanger the health of diners, are a prime focus of what Halal is all about. Today, Halal is no longer a mere religious obligation or observance, but is considered as the standard of choice for Muslims as well as non-Muslims worldwide. The Halal concept is not unfamiliar to non-Muslims, especially those in Muslim countries.

A good example of consumers' awareness and understanding with regards to the Halal concept of food products is the rapid increase in annual sales in Halal stores throughout Moscow, Russia, from USD45 in 2004 to USD70 million in 2006 , a sum that is expected to hike to USD100 million in 2008(Muhammad, 2007). According to Canadian Agri-Food Trade Service Report (2008), there is a strong demand for Halal products in a number of non-Muslim countries for both groups of consumers. The Halal products are also growing in popularity among non-Muslim consumers due to humane animal treatment concerns and the perception that Halal products are healthier and safer. Non-Muslim Russians made purchases from Muslim stores because they believe the products are fresh, safe and infection-free, and had confidence that Muslims would adhere

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to their religious belief not to cheat. In the Philippines, non-Muslims also tend to prefer foodstuffs stamped with the Halal logo for health reasons. The public relations office of Victoria Foods Corporation – one of the many firms with Halal certification –claimed that an increasing number of Filipinos are becoming health-conscious. Filipinos are now looking for Halal products, which they believe to be safe, healthy and good to be consumed (Muhammad, 2007). However a lot of non-Muslim consumers still view Halal-labeled food products from a religious perspective. (Malaysia is a multi racial country with 62% of the population made up of Malays who are Muslim, 24% are Chinese who are either Buddhist or Traditional Chinese religions and 8% are Indians and their main religion is Hinduism. Both Chinese and Indians are not concerned about whether the food that they consume is Halal or not. It does not affect their consumption patterns even if the product is Halal). They have yet to appreciate the underlying advantages that come with Halal products which include a hygienic process Halal products have to undergo before reaching the market. In addition to this, Halal products have to undergo a thorough inspection to ensure a clean and hygienic manufacturing process. Halal values can be popularized among non-Muslim consumers if the society at large is made to be more aware of issues concerning health, animal rights and safety, the environment, social justice and welfare. Thus the objective of the study explore the underlying determinants that are likely to influencing non-Muslim consumers' perceptions and attitudes towards Halal concept and Halal food products in Malaysia in lieu of new paradigm in global issues on sustainability, environmental and animal welfare.

Review of past studies

Most, but not all, religious diets prescribe a variety of foods on a temporal or permanent basis, and thus these diets become restrictive in nature. A survey conducted by Bergeaud-Blackler *et al.* (2004, 2006) shows that the Halal meat products are chosen by French Muslims not because of religious obligation, but consumers also believe that Halal products were tastier, healthier and the Islamic slaughter method is less painful for the animal.

Fundamental problems that arise are the different definitions of Halal food and the different perceptions among non-Muslim consumers. The Halal food chain is therefore adapting to newly emerging consumer interests like food safety, animal welfare and convenience in cooking and eating (Bonne and Verbeke, 2006). According to Cutler (2007), most

consumers believe that Halal and Kosher food products follow stricter safety and quality standards than non-Halal and non-Kosher products in the same category. Given the extra food safety and rigor in standards in the production of Halal and Kosher foods and with consumers responding to such food production practices, food manufacturers are considering the efficacy of expanding their marketing reach far beyond the religious rationale as profitability rests in foods designated as Halal and Kosher.

Malaysian Standard on Halal Food (MS1500:2004) incorporates compliance with international standards of Good Manufacturing Practices and Good Hygiene Practices and prescribes practical guidelines for the food industry on the preparation and handling of Halal food (including nutrient supplements) based on quality, sanitary and safety considerations and serves as a basic requirement for food products and food trade or business in Malaysia. Halal has now become a universal concept. Halal stands not only for just and fair business but also for animal welfare, social justice and sustainable environment. It is no longer a concept confined or restricted to the slaughtering of animals for the consumption of Muslims but encompasses products and services of the highest quality that meet the ever increasing awareness and needs of non-Muslim consumers in a demanding market. Malaysia is a multi-ethnic, multi-cultural and multilingual society. The population as at 2008 is 26.8 million consisting of 62 percent Malays who are Muslims, 24 percent Chinese who are mainly Buddhist or Maoist, 8 percent Indians who are mainly Hindu (the Chinese and Indian are refer to non-Muslim in this paper), with other minorities and indigenous peoples (Department of Statistics, 2007). In the case of Halal foods and non-Muslim consumers in Malaysia, some of the questions that need to be resolved are a). To what extent are non-Muslim consumers aware and understand the Halal principles and concept; and b). What are the predominant determinants which may influence non-Muslim consumers' perceptions toward Halal principles and Halal food products?

Methodology

Various models have been proposed to explain consumer behavior towards food in general. The Theory of Planned Behavior (TPB) (Ajzen, 1989; 2002) postulates three conceptually independent determinants of behavioral intention: attitude, subjective norm and perceived behavioral control. It assesses the degree to which people perceive that they actually have control over enacting the behavior of interest. The link between perceived behavioral

control and behavior suggests that consumers are more likely to engage in behaviors they feel to have control over and are prevented from carrying out behaviors over which they feel to have no control. Control factors such as perceived availability may facilitate or inhibit the performance of behavior. For example, high perceived availability of Halal food in Malaysia may hinder someone from other food consumption (Vermeir and Verbeke, 2005; 2006). In the present study, the influence of the classical components of the Theory of Planned Behavior on intention to consume Halal food is measured within a population of non-Muslims in Klang Valley. Figure 1 shows the conceptual framework of Theory of Planned Behavior (TPB) applicable to Halal food consumption by non-Muslim in Malaysia. This conceptual framework is modified from the Theory of Planned Behavior originated by Ajzen (1989, 2002).

A randomized sample of 400 non-Muslim respondents, were interviewed via structured questionnaires to gather information regarding their awareness, understanding and purchasing behavior towards Halal food products and the concept of Halalness. The questionnaire included items measuring the components of the proposed model of the TPB. The respondents were selected randomly in the supermarkets. Supermarkets were chosen because most manufactured food products are widely available there and consumers from all walks of life shop at supermarkets. The questionnaire was divided in two sections and contained straightforward questions. In the first section, respondents' socio-economic/demographic characteristics (e.g., age, education, gender, religion, gross household income and employment status) were asked. As for non-Muslims, eating foods that meet the Islamic religious prescriptions cannot be considered to be an expression of religion. Therefore, we argue that Halal food consumption decisions within other context such as food safety, environmentally friendliness and cleanliness could differ significantly from purchase situations where these factors do play a key role. Thus, the second section contained the consumers' attitudes about Halal food consumption. Respondents were asked to rank the importance of the relevant statements on their Halal food consumption decision. The definitions of socio-economic/demographic variables and the summary of consumer attitudes are presented in Table 1.

Descriptive statistics were used to identify socio-economic/demographic characteristics and awareness of non- Muslim consumers toward Halal food products. While, the logit procedure was used to determine the extent to which selected socio-economic/demographic characteristics and attitudes influenced the respondents' awareness on Halal food. In this model, each dichotomous predictor or explanatory variable has a value of 0 or 1, in order to discover the affect of the categorical explanatory variables on the awareness of underlying advantage of Halal food products principles. The logit model for the representative consumers' awareness 'i' can be expressed as follows:

$$Y_i = \log(\frac{p_i}{1-p_i}) = a + \sum_{j=1}^{n} b x_i + e_i \quad ....(1)$$

Where; Y_i is a dependent variable "Being aware of underlying advantage of Halal foods products principles" that had two categories namely "non-Muslim consumers are aware of Halal food advantages" coded as one and otherwise coded as zero. The variable x_i represents the different attributes and demographic profile affecting the representative consumer's awareness on Halal food. In this regression model, the vector x_i consists of variables such as religious belief, food safety, environmentally friendly, education level and residential area of consumers, gender, age, occupation, animal welfare, martial status and fair trade. Specifically the logit model can be stated as follows:

$$\log(\frac{p_i}{1-p_i}) = \beta_0 + \beta_1 x_{Age} + \beta_2 x_{Gender} + \beta_3 x_{\substack{Marital \\ Status}} + \beta_4 x_{\substack{Residential \\ Area}} + \beta_5 x_{\substack{Educational \\ Level}} +$$

$$\beta_6 x_{Occupation} + \beta_7 x_{\substack{religious \\ belief}} + \beta_8 x_{\substack{Food \\ Saftey}} + \beta_9 x_{\substack{Enviromentaly \\ Friendly}} + \beta_{10} x_{\substack{Animal \\ Walfare}} +$$

$$\beta_{11} x_{FairTrade} + \varepsilon_i$$

Where; $\log(\frac{p_i}{1-p_i})$ is called log-odd ratio. The Log-odd ratio is the logarithm of the odds that a particular choice will be made by the representative consumers. P_i is the probability of proxy variable $Y_i = 1$ and $(1 - P_i)$ is the probability of $Y_i = 0$ and ε_i is the error term. The signs of parameter estimates and their statistical significance indicate the direction of the response associated with the presence or level of a particular variable. The changes in the probabilities associated to the intermediate categories (1 to j − 1) cannot be signed a priori. Thus, category-specific marginal effects are often reported (Gujarati, 1988). Table 1 shows the definition of the categorical explanatory variables used in the logit model.
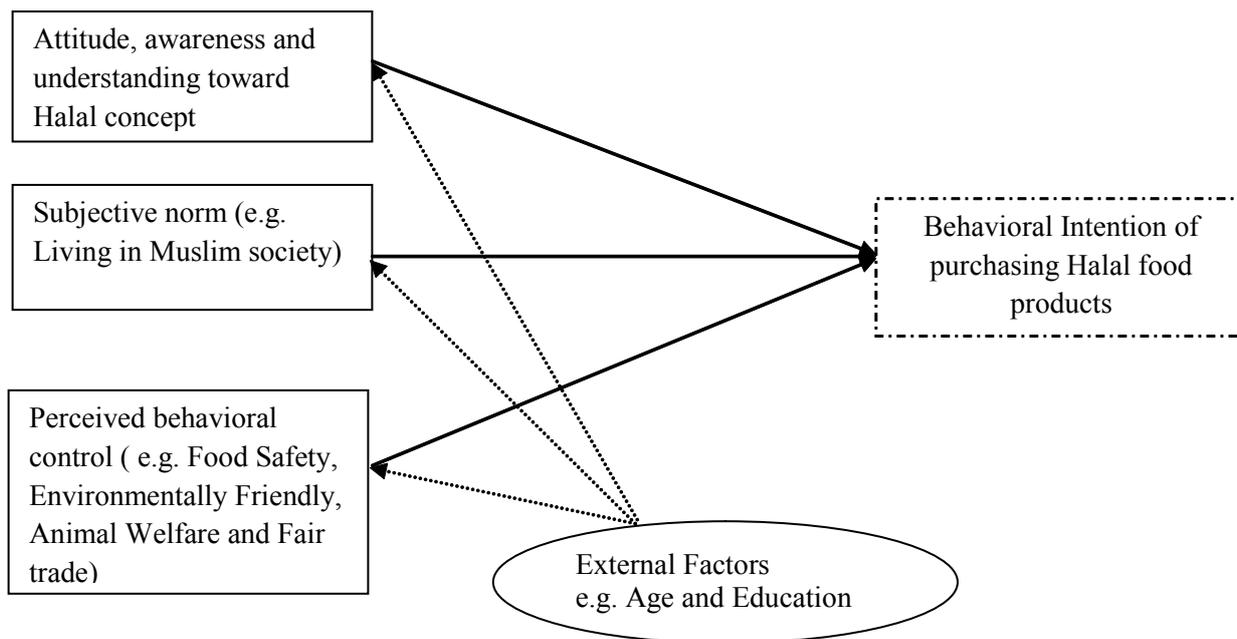
Figure 1. Conceptual framework of theory of planned behavior with application to Halal food consumption among non-Muslims in Malaysia. Source: Adapted model from Ajzen (2002)

Table 1. Explanatory variables to measure consumers' awareness towards Halal principles

Variables	Design value (Coding system)
Residential Area	Rural/Suburban Urban
Gender	Female Male
Age	Above 40 Below 40
Education Level	0. Up to secondary school 1. Tertiary
Occupation	Without work experience With work experience
Religious Belief or level of religiosity	Lower Religious Belief Higher Religious Belief
Food Safety	Not Concerned about Food Safety Concerned about Food Safety
Environmentally Friendly	Not Concerned about Environmentally Friendly 1. Concerned about Environmentally Friendly
Animal Welfare	Not Concerned about Animal Welfare Concerned about Animal Welfare
Fair Trade	Not Concerned about Fair Trade Concerned about Fair Trade
Marital Status	0 Not Married 1 Married

Results

Descriptive analysis

Table 2 shows the characteristics of the sample with regard to their demographic background. About two-thirds of the respondents are from urban, and one-third are from suburban. More than 50% of the respondents are female. Among the respondents, more than half of the respondents are Chinese (52.0%) followed by Indians at 41.0% and others at 7.0%. For religion, the compositions are as follows: Christians (31.5%), Buddhists (39.5%) and Hindus (29.0%). Most of the respondents are married (63.5%) as compared to single (36.5%). The majority of respondents interviewed are between 26- 40 years of age (54.0%) and most of them (75.5%) are educated at tertiary level. The occupations of the respondents were categorized into five levels. The majority of the respondents have working experiences in various positions such as working for government sector 8.0%, private sector 70.0%, self-employed 10.5%. The remainders are students 6.0% and the others (5.5%) which include retirees, unemployed and housewife groups. In terms of income distribution, the study found that at least 46.0% of the respondents have incomes between RM 1501-3000 per month. While about 15.5% of respondents earn less than RM 1500 and below, a smaller percentage of respondents (8.5%) have monthly incomes above RM 6000.

Logit regression analysis

The Logit regression analysis was used to estimate the extent to which selected socio-economic/ demographic characteristics and attitudes influenced the respondents' awareness on Halal food products principle. Table 3 shows the estimated logit model for non-Muslim consumers' awareness on Halal principle food products. Five of the variables were positive and statistically significant, suggesting that response categories are indeed ordered properly. Thus, the socio-economic/demographic factors and consumers' attitudes variables in the ordered model equation are relevant in explaining consumers' awareness and attitudes on Halal principle and Halal food products. The results indicated that, the socio-economic variables play an important role when explaining the consumers' attitude and awareness toward Halal food products.

Based on the statistically significant coefficients, religious belief or religiosity is an important determinant for consumer attitude, and the effect is positive (Table 3). Concern about food safety positively influences the probability of consumers' attitude on Halal food products by 1.41 more. The

results highlight the role played by food safety and hygiene in promoting the Halal food products. The odd ratio for animal welfare is minus 1.88, indicating that non-Muslim consumers are less likely to purchase Halal food products given the argument that non-Muslim most likely view Islamic slaughtering as undue cruelty to animals.

The estimated coefficient for environmentally friendly is positive and significant at the 95% level of confidence. This shows that a positive effect will emerge as Halal food product become more environmentally friendly and as this determinant advances, the likelihood of level of attitude will increase 1.59 times. The result of the variable age, which has been classified into two groups (40 years and above, less than 40 years), shows that as the respondents grow older; their level of awareness towards the advantages of consuming Halal food products is 2.71 times less compared to the younger group of the respondents. This may imply that younger respondents are well informed about these advantages because they are more exposed to the media and information about Halal principle. Possible differential predictive value of the theory of perceived behavior components based on the education level also has a significant implication on attitudes towards Halal foods consumption. Respondents from urban areas are 2.13 times more likely to be aware of Halal food benefits as compared to consumers from rural areas. The logit model is regressed with the three classical determinants of intention, subjective norm (distinguishing between motivation to comply and personal conviction) and perceived behavioral control. For the total sample, attitude towards Halal food, motivation to comply (religious belief) and perceived control (food safety and environmentally friendly) are the significant predictors of intention. In addition, animal welfare seems to have no positive influence on intention to eat Halal food. Thus, perceived control does not turn out to be a barrier to consume Halal food for non- Muslims in Malaysia.

Discussion and Conclusions

The purpose of this study was to investigate the awareness of Halal principles in relation to food consumption among non-Muslims in Malaysia. Apparently, the consumption of Halal food for non-Muslims is quite different from the consumption of "regular" food or other foods for non-Muslims. This study shows that in general, the awareness of Halal principles and Halal food products is determined by a positive attitude, the pressure of others and the perceived control. Meanwhile some perceived control

Table 2. Demographic profile of respondents

Characteristics	Number	Percentage
Residential area		
Urban	282	70.5
Suburban	118	29.5
Gender		
Female	206	51.5
Male	194	48.5
Religion		
Christian	126	31.5
Buddhist	158	39.5
Hindu	116	29.0
Ethnic		
Chinese	208	52.0
Indians	164	41.0
Others	28	7.0
Education level		
Never been to school	6	1.5
Primary school	10	2.5
Secondary school	82	20.5
Tertiary	302	75.5
Marital status		
Single	146	36.5
Married	254	63.5
Occupation		
Government service	32	8.0
Privet sector	280	70.0
Self-employed	42	10.5
Unemployment	6	1.5
Student	24	6.0
Others	16	4.0
Age		
Below 25	44	11.0
26-40	216	54.0
41-60	136	34.0
Above 60	2	1.0
Income		
Below RM1500	62	15.5
RM1501-RM3000	184	46.0
RM3001-RM4500	78	19.5
RM4501-RM6000	42	10.5
Above 6000	34	8.5

Table 3. Estimated logit model for non-Muslim consumers' awareness and halal food

Variables	Estimated Coefficients	Standard Error	Ratio	P-value
C	-1.390340	2.073119	0.248	0.5024
Religious Belief	0.661114	0.147818	1.937	0.0000***
Food Safety	0.343800	0.175864	1.410	0.0506*
Animal Welfare	-0.630527	0.250050	1.879	0.0296**
Fair Trade	0.037437	0.183785	1.038	0.8386
Environmentally Friendly	0.462645	0.202236	1.588	0.0222**
Age	-0.996635	0.444055	2.709	0.0248**
Education level	0.599553	0.191878	1.821	0.0283**
Gender	0.023121	0.336011	1.023	0.9451
Area (Urban and Rural)	0.756512	0.361608	2.130	0.0364**
Marital Status	-0.265080	0.213624	0.767	0.2147
Occupation	0.447580	0.309007	1.564	0.1475
McFadden R-squared	0.265406	Log likelihood	-115.3987	
S.D. dependent var	0.500352	Restr. log likelihood	-138.2692	
Probability	0.0004	Avg. log likelihood	-0.576993	

*** Statistically significant at the 0.01-level, ** at the 0.05 level, and * at the 0.10 level.

factors like animal welfare do influence Halal food principles negatively. Possibly, the importance or personal relevance attached to Halal food (especially meat products) is that the non-Muslim consumers might find the idea of Halal to be more on how the animals are slaughtered. Non-Muslims would more likely think of it as cruelty to animals, believing the animals suffer disproportionately for approximately two minutes prior to death, having allowed the slaughtered animals to bleed to death. However, the Islamic principles of slaughtering clearly state that the knife used for slaughter must be very sharp, to ensure a quick, deep and clean cut through the vital anatomy of the neck of an animal – mainly the trachea, esophagus and major blood vessels. Meanwhile some recent studies indicate that the "Direct Method" of slaughtering an animal, which is the Islamic method of Dhabh, is more merciful compared to the conventional method in the West, whereby the animal is stunned with a "captive bolt pistol" before being slaughtered. Efforts by the scientific community support that the Halal slaughtering method initiates massive hemorrhaging, which induces anoxia – lack of oxygen – in the brain cells, acting as a powerful painkiller (Schulze and Hazim, 2001).

The religious and safety concepts associated with the Halal food probably make this decision more important for consumers, which could lead to a different decision-making process, including a specific set of predictors. While the main determinants that might have positive impact or associated with

Halal principles of food products among non-Muslim is their lifestyle. We can conclude that in general, a positive personal attitude towards the consumption of Halal food, the influence of the perceived control (food safety and environmentally friendly) over consuming Halal food contribute to predicting the intended consumption of Halal food among non-Muslims. The findings of this study also indicated that religious belief, food safety, animal welfare, environmentally friendly, age, education level and area of residence are significant determinants of the consumers' attitude towards understanding and awareness of Halal principles and Halal food products. Despite an increasing trend in attitude and intention to purchase Halal food products, there is no significant evidence that non-Muslim consumers are absolutely aware of underlying advantages that come with Halal food process Therefore practical implications extend to food policy decision-makers and food marketers who might pursue identity- and/or acculturation-related strategies in their distribution and communication efforts targeted at the growing Halal food market segment among non-Muslim consumers in Malaysia. In addition, understanding the why and how consumers perceive Halal food products can lead manufacturers to increase their level of awareness and knowledge on Halal principles and Halal food process in order to gain the most efficient way of communicating marketing information to their consumers.

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