The Impact of Food Labeling on Purchasing Behavior Among Non-Muslim Consumers in Klang Valley


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Abstract: The purpose of this study is to validate the impact of food labels among non Muslim Malaysian consumer using an extended theory of planned behavior model (TPB). In so doing, the study assessed the direct and indirect effect of food labeling on consumer intention to purchase or otherwise the food products of interest. A stratified random sampling technique was adopted in selecting 795 non Muslim consumers in Klang Valley Malaysia. The results of structural equation modeling supported the adequacy of the proposed model. This study contributes to and extends the understanding of the food labeling and purchasing behavior, identifying the rationales for purchasing of food products with labels that contains information such as Halal logo, ingredients and nutritive value.

Key words: Keywords: food labeling, consumer, attitude, purchasing behavior.

INTRODUCTION

In this present millennium, food consumers are seriously in depth of identifying what they are consuming through food labeling. The contents that buyer can gain knowledge before buying is through the labeling of food (Wandel, 1997). Food labeling is vital issue among Malaysian while Muslims are rest assure of some ingredients that are not consumable for them called haram. In addition, halal-logo, perhaps, is one of the Muslim identifications of consumable food packaging in this situation. Despite this, Non-Muslims consumers in Malaysia are now embedded in searching for information about the food they consume through labeling information such as; halal-logo, ingredient, nutrition, expiry date, brand and price consideration.

Without proper labeling, the consumers will blatantly discard such product. There are many studies pertaining to food labeling which bring ideas and important for the manufacturing industries of food product in the aspect of labeling. The quest of this study is to fill the gaps of purchasing behavior in the context of food labeling among food consumers most especially Non-Muslims in Malaysia.

MATERIAL AND METHODS

Food labeling is a boulevard for the consumers to express their feeling about inadequate information provided by food industries on their products. Muslims acknowledge the fact that halal food is not just about what the food is but how it prepared is also important. Similarly, Non-Muslims are now aware that food intake is nothing without knowledge of it content. Inadequate food labeling, is considered as unethical for food consumers. (De Pelsmacker et al., 2005) opined that consumers can express their feelings of responsibility towards society and their appreciation of socially responsible companies and /or products through ethical consumption behavior. Besides, ethical consumption can be defined as the purchase of a product that conforms to certain ethical issues and that a consumer chooses freely (Doane, 2001). Purchasing behavior of Non-Muslim in Malaysia depend on the ethical quality through total information of the contents.

Purchasing behavior of consumers depend on labeling credibility (i.e. amount of credible information and trustworthiness of issuer), (Zadek et al., 1998; Loureiro et al., 2002; Lee and Lee, 2004). Marketing efforts which comprises of; branding and distribution strategy on availability of the product in the shops and in promotion campaigns was observed by (Wessels et al., 1999; Mielants et al., 2003; Nilsson et al., 2004; Maignan and Ferell, 2004). They concluded that these entire attribute “may have impact on the consumer buying decision” (De Pelsmacker et al., 2005: 513). Thus, Food labeling has an impacts on purchasing behavior of Non-Muslim in Malaysia through the factors examine in this study.

Consumers are searching for more information about food products. Food labeling is adequate to express the major content needed by the consumers. For food labeling to be a useful, it must follow consumer’s concern (Glanzer et al., 1989). The information within must deal with those aspects which consumers are looking for. The food labeling should give the consumers information about all the main ingredients put into the food, as well as additives and condiments. This could change the purchasing behaviours of the consumer. This study
inquired to identifies relative importance and difference of consumers in purchasing behavior based on the following: halal-logo, ingredient, nutrition, expiry date, brand, and price consideration.

It is important to understand the meaning of 'halal'. Halal is describes as “permissible” or “allowed” concept that ordain by Allah. To gain a meaningful life, a Muslim need to consume food accepted in Islam. Halal logo is a symbol of permissible of product for consumption. Halal logo is commonly appears on product mostly food. Any food labeling without halal logo is considered impermissible for Muslim. Today, halal-logo is no longer a mere religious obligation or observance due to well identifications of importance of consuming healthy food product and constant campaigns by Malaysia certification body. This is also considered by Non-Muslim in Malaysia. Besides, it is standard logo of certification of choice for Muslim as well as Non-Muslim worldwide.

Food labeling as a medium of information for Non-Muslim in Malaysia consumers, ingredient are considered important which has significant value in consumers purchasing behavior. Davies and Wright, (1994) describe that attitudes and purchase behavior comes from the adequate of knowledge toward product. Ingredient added in food product may have different name where this terminology of additives input might difficult for the consumers to understand. Definitely, this may have effect on Non-Muslim consumers purchasing behavior on products.

For instance, British survey on behavior towards buying food product of different ingredient with additives, concluded that food additives were of main concern to consumers in ingredient where 91% thought they should be provided with more information, and only about 16% of women and 11% of Men have changed their behavior towards buying additive-free food (MAFF, 1986). Hence, Non-Muslim consumers in Malaysia might also need full information about ingredient in the food product in order to fit their purchasing opinion.

Nutrition on food labeling appears different in proportion, in the sense that the interpretation of nutrition either in percentage or calories by the consumers may reduce their buying choice. This is because some consumers need more or little percent of calories, simply concerning their health -add or reduce is difficult, and then it also affects their purchasing opinion. Furthermore Bowbrick (1992) describe that in United Kingdom there are one million adult which are illiterates and also the number of slow readers. In addition Heimbach (1980) support that nutrition contain in food products has difficulties for consumer in interpreting it.

Similarly, S. Tessier et al (2000) emphasized that unfortunately, even consumers read the labeling, and it appears that people do not understand the major content fully. Besides, poor comprehension of the nutritional information currently provided on foods was often encountered among them. Hence, most consumers could not relate the numerical amount of the main nutrients to a verbal or written description. Thus, the nutrition label is an important vehicle that food manufacturers can use to communicate essential Information about the nutritional value and composition of their product (Wills et al., 2009). Potentially, this represents a valuable tool to help consumers make informed decision before purchasing their choices.

However, considering Malaysia as a country that contains different background most especially in term of religious. As there are large demographic and socio-economic advancement in purchasing of food product through food labeling, this study analyses the consumer’s purchasing behavior mostly among Non-Muslim in Malaysia. This analysis follows the major factors related in the literature for clear picture of Non-Muslim consumers purchasing behavior in Malaysia.

There have been many studies on consumer buying behavior related to labeling. Among those, only a few studies have used the Theory of Planned Behavior (TPB) (Ajzen, 1991), which has been viewed as providing a useful conceptual framework for dealing with the complexities of human social behavior (Ajzen, 1991). This current study used the TPB model as a theoretical framework to explain consumers’ purchase behavior being influenced by labeling. Given behavior is the individual intention and the central factor in the Theory of Planned Behavior. In a nutshell, the TPB states that behavior is determined by the intention to engage in such behavior, which in turn, is determined by the attitude toward the behavior, the subjective norm, and the perceived behavioral control (Ajzen, 1991). This study focused on the influence of food labeling on consumers' purchase behavior. Additionally, this study explored how Non-Muslims consumers purchasing behavior were affected by food labeling, such as Halal-logo, Nutrient and ingredient.

The population of study comprises of Muslims consumers in Klang Valley Malaysia. A stratified random sampling technique was adopted in selecting 795 samples. Consumers are divided into 3 groups based on their housing areas i) high ii) medium iii) low and from From each housing area (Taman) 10 house were randomly selected. A total of 1000 questionnaires were distributed, but (795) 75% of the questionnaire were returned. Prior to the distribution of the questionnaire to the whole sample, internal consistency (reliability) check was computed and it was found that the Cronbach’s coefficient alpha for the classroom communication was .83.

The instrument contained sub-parts. The first part consists of the demographic information, age, and gender, level of education, income and years of service. This is followed by items on Non-Muslim consumers’ attitude, perception, knowledge and preference toward Food labelling and later by items on labels (ingredient, health, halal-logo and nutritional factor). All the questions used a seven-point Likert scale in which 1 indicating strongly disagree, 2 somewhat disagree, 3 disagree, 4 neutral, 5 somewhat agree, 6 agree, 7 strongly agree.
The variable used for food labeling i.e the predictor measure is ingredient, Halal logo and nutrient. For criterion measure (purchase behavior), it includes purchase behavior items.

**Results:**

This study covered Muslims consumers in Klang Valley area Malaysia 795 Non-Muslims consumers responded to the survey. The confidence interval and margin of error were 95 per cent and 5 per cent respectively (Ferguson, 1981; Vockell and Asher, 1995). In terms of gender, 66.8% were females and 33.2% males. Chinese respondents were 54.2% and 44.5% were Indians. Majority (49.6%) of the respondents were Bachelor degree holders. Most (44%) of the respondents were less than 30 years of age and they mostly (75.7%) resides in urban area. In general, the respondents seemed to be evenly distributed and almost covered the whole of klang valley areas. As required, the study conducted data screening to overcome problems such as sample size and missing data, multivariate normality and absence of outliers, linearity, absence of multi-collinearity and singularity (Tabachnick and Fidell, 2001). The study considered the final sample size of 1219, as adequate Hair et al., 2006).

The internal reliability of the items was verified by computing the Cronbach’s alpha (Nunnally, 1978). Nunnally suggested that a minimum alpha of 0.6 sufficed for early stages of research. The Cronbach’s alpha estimated for purchase behavior was 0.70, Halal logo 0.65, ingredient 0.80, and nutrient scale was 0.79. As the Cronbach’s alpha in this study were all much higher than 0.6, the constructs were therefore deemed to have adequate reliability.

This study involves a relatively large sample (795 respondents) and therefore, the central limit theorem could be applied and hence there is no question on normality of the data. Two major methods were utilized in order to determine the presence of multicollinearity among independent variables in this study. These methodologies involved calculation of both a tolerance test and variance inflation factor (VIF) (Kleinbaum et al., 1988). The results of these analyzes are presented in Table I. None of the tolerance levels is # 0.01; and all VIF values are well below 10. Thus, the measures selected for assessing independent variables in this study do not reach levels indicate of multicollinearity.

The acceptable Durbin-Watson range is between 1.5 and 2.5. In this analysis, Durbin-Watson value of 1.751, which is between the acceptable ranges; show that there were no auto correlation problems in the data used in this research. Thus, the measures selected for assessing independent variables in this study do not reach levels indicate of multicollinearity (Table II).

Table I presents results of a multiple regression analysis used to evaluate the strength of the proposed relationship. Three hypotheses were formulated and all the variables retain after testing the reliability. The individual hypotheses were tested.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Tolerance</th>
<th>VIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient</td>
<td>0.818</td>
<td>1.224</td>
</tr>
<tr>
<td>Nutrient</td>
<td>0.816</td>
<td>1.225</td>
</tr>
<tr>
<td>Halal-logo</td>
<td>0.983</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Table 2:

<table>
<thead>
<tr>
<th>Variables</th>
<th>β</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>3.886</td>
<td>4.678</td>
<td>.000***</td>
</tr>
<tr>
<td>Ingredient</td>
<td>.368</td>
<td>13.485</td>
<td>.000***</td>
</tr>
<tr>
<td>Nutrient</td>
<td>.192</td>
<td>7.045</td>
<td>.000***</td>
</tr>
<tr>
<td>Halal-logo</td>
<td>.527</td>
<td>21.411</td>
<td>.000***</td>
</tr>
</tbody>
</table>

Note: Significance at: *p< 0.001 and **p<, 0.000; R² = 0.520, adjusted R² 0.518; dependent variable: halal food purchasing intention

using a multiple regression prediction model following the guidelines established by Hair et al. (1998) with consumer purchase behavior as the dependent variable. The results obtained, as shown in Table II, revealed that H1-H3, were found to be significant in the prediction model. The results provide support for hypotheses H1-H3, that is, the impact of food label; Halal logo (β =0.527 and p , 0.000), Ingredient (β=0.368 and p, 0.000) (β= 0.192 and p , 0.000) on Non-Muslim purchasing behavior.

**Discussion:**

The main objective of this study is to explore how the food labeling could facilitate in predicting the purchase behavior among Non-Muslim consumers in Malaysia. 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 (Golnaz, 2010). The evidence that consumers are more careful in evaluating the “halalness” of the food products by referring to the exporting country of the product brands (Golnaz, 2012) The study results show that food labeling (Halal logo ingredient
and nutrient) could explain 52.0 percent of the variance in the purchase behavior of Non-Muslims consumers. The model was statistically significant and this study results demonstrates, the strength or the importance of label on food for helping to explain consumer purchase behavior purchasing intention. This corroborates other studies wherein TPB model was use as a theoretical framework to examine the purchase behavior (Bredahl et al., 1998). The study showed that labeling has a significant and positive effect on consumer buying behavior label is an important factor that influences consumer purchasing behavior because those with high positive and greater reliance on food ingredient and nutrient appeared to have greater intentions to purchase goods or products that possess these labels. Social pressure, socialization of culture and shared religious belief may compensate for high favorable attitudes of Non-Muslims in Malaysia to go for food that has halal logo label on it.

Food labeling appeared to effectively predict purchase behavior among the Non-Muslims consumers in Malaysia. To encourage adequate and rational food purchasing behavior from a behavioral perspective, government authority, private health organization, consumer right association and NGOs should emphasis the need for adequate food labeling for manufacturing companies. Government should focus on creating social expectations regarding food label improving consumers’ sense awareness and ability to buy food with some information regarding ingredient, nutrient and halal logo on it.

REFERENCES


