The Relationship of Health and Nutrition Claims towards Purchasing Choices among Consumers in Shah Alam, Selangor

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Summary Consumers nowadays have more awareness for healthy foods and demanded healthier food choices to avoid health-related problems; therefore, industries had included health and nutrition claims on their products. Health and nutrition claims usually influence consumers’ food choice decision. Products with health claim resulted in higher perception of healthiness and nutritional value of the product, even if the product was not considered as a healthy choice. The aim of this study was to assess whether the health and nutrition claims had led to a healthier perception or better evaluation of the product among consumers. Methods: A cross-sectional survey was conducted using an online questionnaire on 385 respondents collected through convenience sampling. The survey consisted of four parts: socio-demographic background, health awareness, understanding and usage of health and nutrition claims, and purchase intention measured through the use of a mock packaging. Data collected were analyzed using SPSS version 22. Results: Most of the respondents aged 18–30 (81.0%) and almost half of them were Malay (45.7%) with bachelor/master or PhD qualification (60.0%). The distribution of household income for all categories was almost similar (18.2–20.8%). There was a significant statistical relationship between health awareness and purchase intention among respondents ($r=0.391$, $p<0.01$). Conclusions: Health and nutrition claims influenced consumer’s perceptions and purchase intention, especially for those who were more concerned about their health, thus, more focus on policy regarding claims is needed.

Key Words health claims, nutrition claims, health awareness, purchase intention

Consumers gained more consciousness regarding healthy foods due to the rise of unhealthy food products which led to the increase of health problems like diabetes, strokes and obesity as day by day they hear about the significance of nutrition and diet. Now, consumers are demanding food industries for healthier food choices that contain functional foods and less harmful ingredients. As a result, in recent years, industries started to develop healthier food options with including health and nutrition claims as a marketing tool. Health claims is defined as any labeled statement that indicate the health outcome of a food product while nutrition claim is a statement which indicates or states a low amount of the nutrient that is used as a claim. The purpose of it is to relocate to the consumer that a specific product, containing beneficial ingredient, functions physiologically resulting to a health support such as ‘contains omega 3’ that helps in reducing artery blockage and improves cardiovascular health (2). Health claims leads to a positive consumer perception (3) even to unhealthy food products (4), so this means claims play a great role in assisting companies in attracting consumers to purchase their products. Even with establishing policies and regulations regarding health claims, with the occurrence of manipulation, it still affects consumer who lack nutrition related knowledge as the statement ‘high in fiber’ and ‘reduce risk of diabetes’ does not always mean that the product is considered fully healthy as it might contain high amount of other nutrient making the product dense in energy or a low amount of the nutrient that is used as a claim.

Health and nutrition claims usually influence consumer’s food choice decisions and with health information, it results in higher nutritional value and healthiness perception ($p<0.001$) (5). When someone is trying to make healthy food choices, especially those who does not have enough nutrition knowledge, they might be influenced by misleading health and nutrition thinking they are making healthier food choices while claims do not necessarily mean the product is a healthy choice. Individuals who have nutrition knowledge tend to use nutrition facts label and does not give attention to claims in front-label but only to the nutrition facts (6).

When people became more aware of nutrition and health outcomes, they became more concerned on the food products they purchase. This was an opportunity for industries to use health and nutrition claims in packaging to attract more consumers to purchase their products. Thus, using health or nutrition claims as a marketing tool. High percentage of participants reported the usage of nutrition related claims when asked about the frequency of using claims like ‘low fat’, ‘rich
The Relationship of Health and Nutrition Claims

Also, it was shown that compared to nutrition labeling, nutrition claims usage among consumers were higher especially when the claim is about fiber, vitamins and fats (8). Globally, about one-third looks for food products low of harmful ingredients like ‘low salt’ and ‘reduced fats’ while slightly more than quarter looks for functional foods (9).

According to a survey done by the Food and Drug Administration (10), about half of the respondents stated that they classified themselves as ‘sometimes’ understand nutrition claims while sometimes they are not able to understand them which might indicate that consumers doesn’t necessarily know the purpose of the claims.

**MATERIALS AND METHODS**

A convenience sampling was conducted for adults at Shah Alam, Selangor. An online survey was distributed online among adults in Shah Alam. All male and female above the age of 18 were included in this study. Malaysian and Non-Malaysian were included in the study. For the exclusion, anyone under the age of 18 was excluded from the study. Respondents involved in the study were 385 where there were 241 females (62.6%) and 144 (37.4%) males involved.

Questionnaire: Section A was about demography (i.e. age, gender, household income, ethnicity & education level) to show equal representation of different demographic variation.

Section B was containing Health Consciousness scale (11). This part consists of six questions that are answered using 5-likert scale which aims to measure the degree in which a person concerned about their health ranging from strongly disagree to strongly agree.

Section C was assessing the usage of nutrition and health claims in which the frequency of claims such as “low in fats”, “rich in antioxidants” will be assessed and the understanding of those claims too. This section contains 2 questions and was measured by using often, sometimes, rarely or never or don’t know as a scale for frequency. For the usage it was measure by all of them, most of them, some of them, none of them or don’t know (10).

Section D was containing a mock package, which is a packaging resembling a food product available in the market, which was used as a stimuli and respondents will be asked about healthiness perception and their willing to purchase the product. This will be measured by a 5-likert scale ranging from strongly disagree to strongly agree (12).

Statistical Analysis. At first, a pilot test was done to test the validity and reliability of the used questionnaire and was analysed for reliability by using Cronbach’s Alpha. All data was analyzed using SPSS version 22. To determine the relationship of health and nutrition claims towards purchasing choices and relationship between health consciousness and nutrition and health claims, correlation analysis was used. For determining the usage of health, descriptive analysis was used. For determining the correlation between demographic profile and each other section in the study, Kendell’s Tau-b using SPSS was used.

**RESULTS**

For both questions measuring the usage, the highest percentage was for the category “sometimes” with the percentage of sharply half (50.4%) and almost half (43.9) while for understanding the highest percentage was for “some of them” (Refer Table 1).

Results also showed that there was a positive statistically significant relationship between health conscious-
ness and purchasing choices among adults in Shah Alam, \( r=0.391, p<0.01 \). The strength of relationship is categorical as medium relationship. Also showed that there was a negative statistically significant relationship between health and nutrition claims and purchasing choices among adults in Shah Alam, \( r=-0.257, p<0.01 \). The strength of relationship is categorical as small relationship (Refer Table 2).

**DISCUSSION**

Results showed that there was a negative statistically significant relationship between health and nutrition claims and purchasing choices among adults in Shah Alam, \( r=-0.257, p<0.01 \) meaning that lower usage and understanding of health and nutrition claims leads to higher purchasing choices and vice versa. The strength of relationship is categorical as small relationship. This means that consumers who do not understand or use nutrition and health claims in food packaging usually have a higher tendency to purchase a product that contains health and nutrition claims, when used a packaging resembling a product. The reasoning behind that might be because in real life, when those consumers buy a product, they don’t usually look for the packaging or give attention to it but when asked to observe the packaging, they gave attention to the packaging and they were convinced by the claims. Therefore, for consumers who use or understand health and nutrition claims and have lower tendency to purchasing a product containing health and nutrition claims, the reason might be because they use the claims, they might have more knowledge on interrupting the claims and the overall nutrition facts and their meaning. Other attributes that might lead to positive evaluation of a food product is influenced by product familiarity and usage of functional ingredient (13). However, a study concluded that the increase in healthiness perception was moderate and, in the meantime, it can be also negative when claims containing benefits and ingredients where consumers were not exposed to it before (14).

Highest percentages were for 'sometimes' category which indicate that consumers tend to use and understand nutrition and health claims which is not surprising as a study with the same targeted population showed that consumers have sufficient food safety knowledge (15). In the same targeted population, it was shown that 71.5% of consumers check the food label for health consciousness reasons like non-communable diseases (16).

Several studies have showed that most consumers use nutrition and health claims when deciding to purchase a product using similar claims used in the study (8, 7, 9, 12). While for the understanding, it was shown that young adults lack understanding of nutrition labels (17) which make them more influenced by health and nutrition claims that can be easily understood. It appears that claims offer a shortcut clue to vital information provided in a packaging (18) stating the reason of consumers using health and nutrition claims. Also, claims can attract consumers to read nutrition information either on the front or back of the packaging in order to validate the claims before deciding to purchase (18) indicating that some consumers only use them on the first look to the product then read the rest of the labelling to make a judgment. A study by Song et al. (19) showed that more than half (62.8%) of consumers reported that they understand the claims in general and only 16.7% claimed that they are unclear. For Malaysian adults, it was reported that most of them read and understand the label information (20).

When it comes to understanding health and nutrition claims the highest percentages was for ‘some of them’ followed by ‘most of them’. However, a study has showed that 67% of respondents were able to interpret claims (21). Also, according to FDA (10) about half of the respondents stated that they classified themselves as ‘sometimes’ indicating that their understanding might be subjected to the type of claims being displayed on the food packaging. As supposed by Ares, Giménez and Gámaro (22), when measuring respondent’s behaviours, the perceived healthiness and their willing to purchase milk desserts enriched with antioxidants and fiber increased in contrast with usual milk dessert which are a type of functional foods. In a study conducted among Irish consumers, it was shown that the overall understanding of claims was very high (82–92%) except for multivitamin claims where it was at 69% and skin-nourishing claims were at 54% (23). A study by Song et al. (19) showed that more than half (62.8%) of consumers reported that they understand the claims in general and only 16.7% claimed that they are unclear.

The main hypothesis of the study was proved in which health and nutrition claims were associated with purchasing choices among Adults in Shah Alam. The

**Table 2. The Relationship between Variables using Pearson Correlation (Stigler, 1989).**

<table>
<thead>
<tr>
<th>Variables</th>
<th>( p )-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Consciousness</td>
<td>0.391**</td>
<td>0.000</td>
</tr>
<tr>
<td>Health and Nutrition Claims usage</td>
<td>-0.257**</td>
<td>0.000</td>
</tr>
</tbody>
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**Correlation is significant at the 0.01 level (2-tailed).**
results also demonstrated that health and nutrition claims indeed influence consumer’s perceptions and purchasing choices specially those who are more concerned about their health.

This study targets a population that never have been targeted in any other similar study where it gave a real live simulation of purchasing process. In this study, only the typical front side of the packaging was included where consumers mostly lay their eyes on when first taking a product. There more in depth studies that explored consumers attitude towards food products in other countries around the world.

For future work, it would be better if the packaging included ingredients list and nutrition panel list in order to give respondents an experience closed to reality so they can make a better judgement regarding the food product.

As this study did not focus on healthiness perception of a food product so for future research, a focus of healthiness perception with different types of products to provide a representation of perceptions and influence to consumers to all types is required.

Disclosure of state of COI

There is no conflict of interest to be declared.

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