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Abstract

This study purposely to investigate how fast food consumer use the nutritional information before they decide to purchase fast food meal. In a previous study, researchers found that many people do research on packed food but limited study on restaurant menu. Therefore, this study has now emphasized on food menu and focus on fast food outlets. Despite that, this study investigates the relationship of food nutrition knowledge on consumer purchase decision towards fast food. Besides, this study analyze the relationship of nutritional information on fast food restaurant menu on consumer purchase decision. In this study, the researcher uses the quantitative method to get respondent information about this topic of research. The study population includes consumers who purchase fast food meals. The convenience sampling method is opted. Through the questionnaire, the researcher found impacts of nutrition information on consumer evaluation toward fast food meal. The finding shows that consumers still chooses to consume fast food restaurants because they have reference to nutritional information before making any purchase.

Keywords: Nutritional Knowledge, Nutritional Information, Fast Food, Purchase Decision

Introduction

Fast food is one of the food choices by today's consumers as dynamic market shifts have been witnessed by the fast-food industry. Along with this pattern, it can be seen that fast food consumption has risen rapidly and now occupies a significant portion of the region. According to Kinnuchan et al (1996), around 40 percent of the US household food dollar was spent outside the house on eating. They prefer to eat out due to certain factors. One of them is the constraint of time to cook at home. Nowadays both couples work every day and the time to be at home is less. So, they choose to eat out, and it is easier for them to choose fast food meal to enjoy. Ortega (2011), in their study revealed that some researchers found out that economic status is closely linked to the trend of consumer consumption of fast food meals, among other variables.

An additional, according to Faucheur et al (2018) problem, is the comprehension of nutrition facts. Technical terms may confuse some customers and miscalculate the intake of nutrients. After that as stated by Andrews et al (2011) some individuals do not know for example, what

the prescribed daily values mean or how to use them in dietary planning. Nutrition experts made similar choices in a product preference survey, although there was a difference between the choices of customers. Therefore, education plays a role in this situation. In addition, nutritional information is often taken lightly by some consumers until the disease attacks their body. Nowadays, many diseases such as diabetes, high blood pressure and heart disease attack consumers as a result of lack of control in consuming food Rana et al (2022), especially fast food.

The 'Westernization' of global eating habits made possible through food imports, fast food and rising consumption of sugar and animal fats is sometimes blamed for the rising epidemic of obesity and associated chronic disease. The fast-food industry in Malaysia had a sizzling growth throughout most of the 1990s (Noor, 2002). The estimated total was RM 1 billion (US\$ 263 million) in 1997 increase to RM 1.3 billion (US\$ 340 million) in 2000. According to Delvarani (2013) fast food intake has caused obesity to the consumer. Income and population growth, coupled with change in lifestyle to one of urbanization, have increase the demand for food and induced changes in food habits, food purchasing and consumption pattern.

Cause of obesity because the intake pattern of calories increases from 2430 kcal person per day to 2990 kcal per person per day in a year, protein from 49g person per day to 61g person per day and fat from 49g person per day to 87g person per day respectively (Apovian, 2016). The food balance research shown that through the year it decreases from 61% to 41% meanwhile, calories from meat, eggs and fish increased from 6.2% to 14.3%, sweeteners from 9.5% to 18% and oil and fats from 11.4% to 14.8% respectively (Ali, 2014). Excessive intake in each of the above-mentioned sections is the cause of obesity among current consumers.

According to the Malaysian National Health and Morbidity Survey 2017 Rodzalan et al (2012), for adult aged 18 and above, 33.3% (5.4 million) were pre-obese while 27.2% (4.4 million) were obese following the clinical practice guideline 2017 classification. Among children aged below 18 years old (based on weight for age status), 3.9% (0.3 million) were found to be obese. Additionally, the average Malaysian diet is not among the healthiest, as an estimated 92.5% of adults aged 18 and above consumed less than five servings of fruits and vegetables or alone per day. Malaysia has also been ranked the fattest country in South-East Asia, and the sixth in the Asia- Pacific region (Teng et al., 2020). Most nutritionists expressed that imbalanced nutrition intake not only leads to obesity but also contribute to chronic disease and shortens longevity. Obesity gives rise to heart disease, hypertension and diabetes. Thus, it has been reported that six of the ten leading causes of death were related to imbalanced nutrition (Din et al., 2012)

This study aims to investigate how fast food consumers use nutritional information before they decide to purchase fast food meals. In a previous study, researchers now found that many people do research on packed food but limited study on the restaurant menu. Therefore, this study has now emphasized fast food meals in fast food outlets. Despite that, it would be the purpose of this study to investigate the relationship of food nutrition knowledge on consumer purchase decisions towards fat food. Besides, this study analyzes the relationship of nutritional information on fast food restaurant menu on the consumer purchase decision.

Literature Review

Relationship between the consumer's level of education with the purchase decision of fast food by Consumers

Nutritional information is the most important thing for consumers who properly assess the nutritional level of a fast-food meal. Therefore, in this case the level of education is important in understanding a piece of nutritional information. According to Bhawara et al (2022) in the previous study mentioned that the degree of education was substantially correlated with dietary awareness. On the dietary awareness ranking, respondents holding a bachelor's or higher education degree achieved higher scores than their counterparts (Ge et al., 2022). These scholars also claimed that respondents with more education were more likely than those with less education to buy healthier food. As researchers know consumers with a high level of education are more aware of the nutrition information displayed in fast food meals. As we know, consumers with a high level of education are more aware of the nutrition information displayed in fast food meals (Almudaihimi et al., 2022). In addition, they also have a higher level of understanding of nutritional information. In addition, as stated by Reyes et al (2020) found that there has been a positive association between the degree of education and the intake of healthy food. Highly educated individuals were more likely than people with lower education to eat a selection of vegetables and fruits. On the basis of this previous study, we expected that their education level would affect their assessments of information relevant to fast food menu items when customers choose fast food meals. In other words, customers with a high level of education will present information related to fast food meals with more important judgments than their counterparts.

In addition, they also have a higher level of understanding of nutritional information. In addition, as stated by Robert et al (2022) found that there has been a positive association between the degree of education and the intake of healthy food. Highly educated individuals were more likely than people with lower education to eat a selection of vegetables and fruits. On the basis of this previous study, we expected that their education level would affect their assessments of information relevant to fast food menu items when customers choose fast food meals. In other words, customers with a high level of education will present information related to fast food meals with more important judgments than their counterparts.

Do purchase decisions of fast food was influence by nutrition knowledge?

Nutritional knowledge is an important factor in ensuring nutritious food intake. Therefore, consumers should be concerned about nutrition knowledge so as not to fall into unhealthy foods. According to Lee et al (2022) nowadays, understanding nutrition information is an additional issue to the average user who often consumes fast food meals. Therefore, they are often stuck with less nutritious food intake. For example, foods that are high in fat, foods that are high in sugar and foods that are high in calories. As stated by Yoon et al (2020) the restaurateur must to improve consumer welfare by providing nutrition information that will assist consumers in maintaining healthy dietary practices.

The underlying hope is that if customers have available accurate nutrition information at the point of purchase and understand how their diet influences their risk of various diseases, they will make food choices that minimise risks. With the nutrition information provided by the restaurateur, consumers can to some extent, increase their nutritional knowledge before taking a fast food meal. Previous studies have also shown that when consumers have a high level of nutrition knowledge, they present more reliable assessments of processed food items or restaurant meals than those with a low level of nutrition awareness.

The effect of eating less nutritious food will cause the body to be exposed to several diseases, such as high blood pressure, heart disease and diabetes, as well as affect the BMI of a consumer towards obesity (Kamyari et al., 2021). In the conclusion of these discussions, we hypothesized that the varying levels of objective and subjective nutritional awareness of consumers would influence their assessments of information related to fast food menu items. In other words, consumers with a high objective and subjective knowledge of nutrition will perform more critical assessments of information specific to fast food menu items than those with low objective and subjective knowledge of nutrition.

The relationship between consumer health awareness with the purchase decision of fast food by consumer

Nowadays, consumers have changed their way of eating-by-eating fast food compared to home-cooked food (Shaban et al., 2019). This is due to the time constraints consumers face as a result of various factors such as busy working and not having enough time to cook at home. By consuming various types of menus or types of fast food regardless of the content contained in the food, many consumers have now fallen into health problems such as heart disease, diabetes and excess calories in the body (Burgoine et al., 2018). In addition, abnormal BMI is one of the causes of unbalanced fast food intake.

According to Ostrom et al (2019), in the previous study, consumers with a high level of health awareness are concerned about their well-being and are highly motivated to maintain their health and improve their quality of life, as well as to avoid ill health through healthy behaviours. Espinosa (2018) states that health consciousness is related to healthful dietary behaviours. Some researchers have concluded that health-conscious shoppers are more likely to buy organic foods and are more inclined to eat healthy foods to improve their health. In addition, Chen et al (2018) in their study revealed that Consumers with high health awareness were more critical in terms of the ratings of fast-food menu items according to their health than those with low health awareness. In other words, consumers with high health awareness are more likely than those with low health awareness to conduct more critical assessments for fast food meals.

Therefore, consumers are beginning to realize the importance of nutritional information before taking any fast-food meal. One commonly suggested approach to nudging consumers toward healthier food consumption is providing clearer information about the nutritional content of food products (Ikonen et al., 2020). Nutritional information is very important to consumers to determine the food they eat is nutritious or otherwise. Based on these previous studies, we anticipated that customers' various levels of health knowledge will influence their assessments of fast-food meal information. Specifically, the assessment of knowledge related to fast food menu items will be more important for customers with high health awareness than those with low health awareness.

Methodology

Research Design

In this study, the researcher uses the quantitative method to get respondent information about this research topic. The quantitative approach is said to be more structured, has a very minimal degree of ambiguity, has a clear meaning and is very focused on the results obtained. In terms of the scope of the study, it can involve large respondents.

Sample and Population

According to Kerlinger (1973) sampling method is the taking of a fraction of a population or full constituent as representing that population or constituent. The sample in the sampling method is a subset of the population and the sample is able to represent the entire population. Samples or respondents selected in the questionnaire must follow several criteria and also be related to the issue either directly or indirectly. In this study, the study population is consumers 20 years old and above that have a level of education and purchase fast food meals. The study used non-probability sampling, which is a convenient sampling method. According to Krupnikov et al (2021), convenience sampling is a method of collecting samples by taking samples that are conveniently located around a location or Internet service. The sampling in this study uses social media platforms such as WhatsApp, Facebook and Instagram to send the questionnaire to the respondents. A questionnaire is used to send to the respondents through a Google Form.

Research Instrument

The instrument used is quantitative by going through a questionnaire to obtain more accurate data. Through the questionnaire, the researcher identifies the impacts of nutrition information on consumer evaluation of fast food meal. In this study, the researcher chooses to use the questionnaire form method to obtain primary information. This questionnaire was given to respondents in this group to obtain data. This questionnaire was constructed in accordance with the objectives of the study. This questionnaire consists of three parts, namely part a, part b and part c. An example of this question is taken from a previous study created by Li et al (2019) because it has the same title as the current study

Procedure for Data Collection

In this study, the researcher plan to collect data which is sent the online google form. We used social media platforms such as WhatsApp, Instagram to spread link of google form to consumer who want the Google form personally. We take estimate one month to complete the survey to get specific data.

Analysis and Results

Respondents Profile

A total of 181 questionnaires were usable and have been analysed. Respondent's demographic profile was analyse using frequency analysis. The profile included gender, age and educational level of respondents. There were 70 male respondents (38.7%) and 111 females (61.3%). The female respondents are very high depending with male respondents. The percentage of women was 22.8% more than that of female respondents. Respondent in age group of 20-30 years old leads the number (45.3%) followed by 31-40 years old (30.4%). Next is the age group 41-50 years old (19.3%) and the least age range is 50 and above which is only (5%). Respondents aged 20-30 years most participated in the questionnaire form conducted by the researcher. Respondents in level education group of degree are the highest which is (34.3%) followed by diploma holder which is (32%) and only different (2.3%) with group degree. After that, respondents in group SPM is (16%) follow by group STPM which is (11.6%). The least level of education is Master/PhD which is only (6.1%).

Table 1

Descriptive Analysis: Mean Score and Standard Deviation on Nutrition Knowledge

Items	N	Mean Score	Std. Deviation
I usually seen nutrition Information before I chose menu in a restaurant or food stall.	181	4.60	.584
I would like to see additional information such as calories and fat when I choose menu items in restaurant or place to buy food	181	4.52	.704
Looking at food information before eating fast food meals can discipline myself in adopting a healthy diet.	181	4.45	.636
Nutrition information matters to me when I buy menu items in restaurant	181	5.38	.105
Reading nutrition information can influence me in consuming healthy food in restaurants	181	5.28	.000
High carbohydrate intake can lead to diabetes.	181	4.93	.128
Always take high-fibre foods to help a good digestive process	181	5.04	.128
Excessive Monosodium Glutamate intake can disrupt the digestive system and adversely affect the heart.	181	5.05	.000
Consumption of fatty foods can Lead to obesity.	181	5.10	.074
Consumption of carbonated beverages can cause diabetes due to excessive sugar.	181	5.60	.000

The first dimension was the food nutrition knowledge influence on consumer purchase decisions. There are ten items that were used to examine the factor. The mean score of each item was showed in Table 4.3.1. It was illustrated that the first items showed the highest score (M=4.60) which they strongly agree the question 'I usually seen nutrition information before I chose menu in a restaurant or food stall' in term of their food nutrition knowledge. The second was item 2 (M=4.52) which showed the question 'I would like to see additional information such as calories and fat when I choose menu items in restaurant or place to buy food. Third, was item 3 (M=4.45) which showed the question 'Looking at food information before eating fast food meals can discipline myself in adopting a healthy diet.

The items 6 and 7 showed that high carbohydrate intake can lead to diabetes and always take high-fibre foods to help a good digestive process showed the same mean score (M=1.02). Next, item 4 and 9 shared the same mean which is (M=1.01) where respondents agree with the question nutrition information matters to me when I buy menu items in restaurant and consumption of fatty foods can lead to obesity. Lastly is item 5, 8 and 10 shared the same mean scored (M=1.0) with the respondents agree with question reading nutrition information can influence me in consuming healthy food in restaurants, excessive Monosodium Glutamate intake can disrupt the digestive system and adversely affect the heart and Consumption of carbonated beverages can cause diabetes due to excessive sugar.

Table 2

Descriptive Analysis: Mean Score and Standard Deviation on Nutrition Information

Items	N	Mean Score	Std. Deviation
The nutritional information available is now easy to understand.	181	4.65	.582
I think the nutrition information in fast food such as burger and fries are clear and correct	181	1.62	.920
In your opinion, advertising fast	181	1.00	.000
Nutrition information matters to me when I buy menu items in restaurant food can be healthy for consumers or not	181	1.01	.074
Nutritional information has now helped reduce the risk of disease to consumers.	181	1.00	.000
Consumption of fatty foods can Lead to obesity.	181	5.10	.074

Correlations of Nutrition Knowledge and Nutritional Information

Table 3

Results of hypotheses testing

Hypotheses	r-value	p-value	Result
H ₁ : Nutrition Knowledge > Purchase Decision	0.489	0.05	Supported
H ₂ : Nutrition Information > Purchase Decision	0.072	0.05	Supported

The relationship between nutrition knowledge and Purchase Decision

Objective one of the studies was to assess the relationship between nutrition knowledge and purchase decision. Correlation analysis was performed on the factor of nutrition knowledge and purchase decision. Result table 1 showed that nutrition knowledge were positively correlated at a medium level ($r=0.489$, p lower than 0.05). The independent variable explained of the variance in the dependent variable. Hypothesis one specified that nutrition knowledge has a significant relationship with the purchase decision. It was shown that the variance in purchase decision had been significantly explained by nutrition knowledge ($r=0.489$, p , lower than 0.05). Accordingly, there was no statistical evidence to support thru null hypothesis. Hence hypothesis one was accepted.

The relationship between nutritional information between purchase decisions

Objective two of the study was to assess the relationship between nutrition information and purchase decision. Correlation analysis was performed on the factor of nutrition information and purchase decision. Result table 1 showed the nutrition information was positively correlated at a medium level ($r=0.072$, p lower than 0.05). The independent variable explained the variance in the dependent variable. Hypothesis two of the study specified that the nutrition information has a significant relationship with the purchase decision. It was shown that the variance in purchase decisions had been significantly explained by nutrition knowledge ($r=0.072$, p , lower than 0.05). Since there was no statistical evidence to support the null hypothesis, hypothesis two was also accepted.

Discussion and Implication

The first research objective for this study was to assess the relationship between nutrition knowledge and purchase decision. Results showed that there was a significant relationship between the two variables and the hypothesis was accepted. As stated by Ikonen et al (2020) it is hypothesized that higher levels of nutrition knowledge are linked to improved accuracy when it comes to the recommended amounts of negative nutrients and higher perceived label understandability. After that, as stated by Laso et al (2022) education and information are also important for informed consumer choice, and there is a range of methods available, the most well-known and extensively used of which is product labelling. This could be a useful tool for modifying and influencing food habits and behaviour.

This second research objective is to measure the relationship between nutritional information and purchase decision. Results also showed that there was a significant relationship between the nutrition information and purchase decision and the hypothesis was accepted. A restaurant can gain profit from showing nutrition information at the point of sale in operations like this, where guests can read nutrition information while choosing menu items to eat (Shen et al., 2020). This study contributes to the academic and management perspectives.

From an academic perspective, it adds to the knowledge of understanding nutritional information before deciding to buy it, especially when it comes to healthy diet habits. Meanwhile, from a management point of view, it not only helps consumers in making purchases of fast food in restaurants but can help consumers in controlling their health from being trapped by the symptoms of unhealthy diseases such as diabetes, high blood pressure and so on. Therefore, knowledge related to nutritional information should be improved and nutritional information should be followed by consumers.

Conclusion

The results of this study may provide a basis for further research into this topic. Food is a physiological need that must be met for life. Unbalanced food intake or poor eating habits being unhealthy can cause a person to deal with all sorts of things diseases. But it should be understood, that different foods are a factor single that can cause harm or can cause disease. This is because the disease may be caused by various factors such as germs, problems and emotional stress. Studies show that the mortality rate problems by chronic diseases in today's society are rooted in the content of the food itself such as fat, sugar and salt content and attention from food additives let alone foods eaten uncontrollably.

Therefore, one needs to be meticulous in related matters with food and nutrition so that the food taken does not bring harm to oneself whether from a physical, mental and spiritual point of view. Then, one should change one's eating habits daily by consuming only nutritious and quality, balanced and moderate and varied, and adequate and controlled calories to suit the required diet. Finally, based on the study, consumers still choose to consume fast food restaurants because they have reference to nutritional information before making any purchase. Therefore, they can control their health of themselves and their families from suffering from any disease as a result of fast food.

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