

## A Conceptual Model of Healthy Food Consumption Pattern among Malaysian Consumers

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### ABSTRACT

Healthy foods refer to foods that are safe for consumption, fine in quality and are nutritious in meeting the principle for sustainability of health. Recently consumption of healthy food has emerged as alternative approach for preventing form obesity and chronic diseases, that affecting Malaysia with high threat, in which unhealthy food consumption is now the leading cause of morbidity and mortality in low and middle-income social classes. The aim of this paper is to investigate on effect of the variable price on the consumption pattern of healthy food with mediating effect of consumer lifestyle. Based on that, this conceptual framework is constructed of three variables price as independent variables, consumption patterns of healthy food as dependent variable. Moreover, this research also proposed consumer lifestyle as mediator. Based on the arguments in the article, three major hypotheses were developed to refine our understanding of the consumption patterns.

**Keywords:** Consumption Pattern; Healthy Food; Consumer Lifestyle; Price; Malaysian Consumers

### INTRODUCTION

A healthy diet is primarily about dietary diversity consuming a variety of foods across and within food groups to meet energy and essential nutrient requirements. Consumption of a wide variety of whole foods, especially vegetables, fruits, legumes, whole grains and nuts, is particularly important [1] (Bereuter & Glickman, 2015).

According to [2] Kessler (2009) in his fascinating book “The End of Overeating” provides an interesting aspect behind the good food design, to have strong cravings for different kind of foods such as plain vegetables, fruits, meats or dairy products. Accordingly, Eat well, Live well, it’s just with few chews with “hyper palatable” foods which are designed to go down easily [2] (Kessler, 2009).

Nowadays, healthy diet is mainly variety of consuming a different foods group get the important required nutrient and energy. Therefore, consumption of a wide different food groups, particularly vegetables, fruits, legumes, whole grains and nuts, is important [1] (Bereuter & Glickman, 2015).

The rapid growth of fast food industries in Malaysia during the last decades has added another dimension to the change in food consumption pattern among

the Malaysian consumers. Moreover, in Malaysia, the availability of variety of food especially in crowded area may be facing implications out of the eating behaviour [3] (Ali & Abdullah, 2012a).

This study is attempting to suggest a construction model on consumption pattern for Malaysian consumer on healthy food. Subsequently, the main factors to be studied are price with its effect on consumption pattern with mediation of consumer lifestyle.

### LITERATURE REVIEW

#### Consumption Pattern

In economic studies the term “consumption” are defined as purchased food, or some a form of sales data of analysis, relatively to actual dietary intake. Additionally, [4] Piana (2001) definition of consumption as “the use by human individuals of goods and services to satisfy some of their needs and wants. ‘Goods and services’ are often referred to as ‘commodities’” and [5] Castellari (2016) defined consumption as “any activity involving the selection, purchase, use, maintenance, repair and disposition of any product or service” as well as [6] (Boullanger, 2007).

Food consumption and health habits, in current years have been the main focus of policy makers

and researchers to establish healthy and continuous living communities [7] (Coomarasamy, Wint, Neri & Sukumaran, 2014).

### Healthy Food

Healthy food defined as low fat, reduced sugar, high fibre, containing fruits and vegetables, and being prepared using appropriate cooking methods [8] Kim, Lee, Gon Kim, & Kim, 2013).

### Consumer Lifestyle

Consumer lifestyle refers to the entity that purchases and uses products and services for the purpose of individual or household consumption [9] (Bin & Dowlatabadi, 2005).

### Price

Price includes issues such as discounts, list prices, credit, repayment term and conditions. The price is included in the price; product or service offered for sale and will determine the level of benefits. Price is the only element that does not include costs charged to the customers to buy products they take [10] (Konopa & Gordon, 2016).

### Price and Consumer Lifestyle

Among the studies that highlighted the relationship of the price and consumer lifestyle studies like [11] Grunert (2006) noted that price has significant relationship with consumer lifestyle as the price of these food items (chicken and eggs) might be a reason to why chicken and egg products were consumed more frequently in the urban areas and among men, As well as in the urban areas, the lifestyle of the population is usually more hectic in comparison to their rural [11] Grunert (2006) and [12] He et al (2010), who focus on positive direct relationship between price and lifestyle of Chinese consumers. Furthermore [13] Bruns, Scholderer and Grunert (2004) mentioned about the increased of women's time cost rises the consumption of non-traditional food like 'fast food' in many countries. Eating-out are working mothers, working away from home, and the variety of local and international has changed the consumer lifestyle of urban workers, students and even families. This has induced to the lack of consideration of nutriment contents with low food calories [14] (Ali & Abdullah, 2012b). Based on the previous discussion, it is hypothesised that:

H1: Price has a positive and significant relationship with consumer lifestyle

### Consumer Lifestyle and Consumption Pattern

There are few studies examined the relations between consumer lifestyle and consumption patterns. The study of [15] Mori, Lowe, Clason & Gorman (2000), similarly the work of [16] Kumar (2015) who examined the consumer lifestyle and consumption patterns. According to [14] Ali and Abdullah (2012), the new living environment and changes of lifestyles have resulted in new arrangement in eating, which was not the case two decades ago. As well as, food businesses grow as the individual capacity to cook and to eat food at home is no longer expected, and it goes that traditional values expecting women to prepare food for the family is not compulsory anymore. As a result, the practice of eating-out has helped families and individuals to meet their food needs, biologically and socially. Accordingly, the consumer lifestyle has significant relationship with consumption patterns. In light of the above discussion, the researcher postulates the following hypothesis:

H2: Consumer lifestyle has a positive and significant relationship with consumption pattern

### Price and Consumption Pattern

There are many studies dressed the importance of price and consumption pattern in food choices which always shaped by what consumer can afford for his healthy food particularly in low incomes, as some people afford to pay a high price for better food, meanwhile, poor low income consumers cannot sustain for healthy food quality, hence the price is considered an important factor for the consumption pattern of healthy food, [17] (Australian Institute of Health and Welfare, 2012).

Similarly, [18] Othman, Karim, Karim, Adzhan & Halim (2013) pointed that price has significant relationship with consumption pattern of healthy food. Recent studies in India fruits consumption in both areas rural and urban was very low, because of their high cost but consumption of seasonal fruits like guava and mango was high especially in rural areas [19] (Pandey, 2014). Similarly [20] Ahmad and Judhi (2010) confirmed that consumers in the Klang Valley, Malaysia, were willing to pay a higher price for organic food products to reflect the value of the products [21] (Valley, Nor, & Ahmad, 2010).

Hence, according to the previous literature price is found significant link between price and

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consumption pattern of healthy food, thus, from the previous research, we draw the following hypothesis:

H3: Price has a positive and significant relationship on consumption pattern

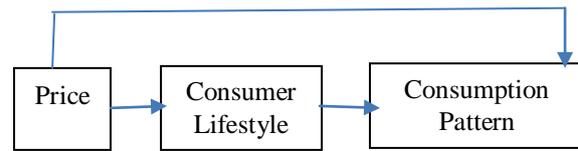
### Consumer Lifestyle as a Mediator

In this study a series of hierarchical multiple regression analyses will be using to investigate the mediating effect of consumer lifestyle towards healthy food on the relationship between the independent variable, price on consumption pattern. [22] Goyal (2007) introduces the concept of the “conditional indirect effect” as a quantification of the contingent nature of a process or mechanism and provide techniques for estimation and inference. As recommended by Hayes the significance of the indirect effects was based on boot-strapped (5,000 runs) confidence intervals around the unstandardized parameter estimate. When the confidence interval for an indirect effect does not include zero, a statistically significant mediation effect is inferred [23](Rebecca, 2013). It was estimated the bootstrap results of the indirect effect ( $a*b$ ) under bootstrapping method on the basis of t-value of  $a*b$  as shown in , if t- value of  $a*b$  is  $> 1.96$ , mediation is said to exist, otherwise not [24] (Kumar, 2015; and [25] Preacher & Hayes, 2008).

Thus, it will estimate the direct effect on consumption pattern as dependent variable and direct effect as simple slopes on consumer lifestyle as a mediator. Therefore, it is hypothesized that:

H4: Consumer lifestyle mediates the relationship between price and consumption pattern

### CONCEPTUAL FRAMEWORK



### RESEARCH METHODOLOGY

The population of this study includes Kedah, Perlis, Perak and Penang states regardless gender, age, education, designation and years of service. The current population estimated in Malaysia in 2016 is researching 31.7 million people, with growth of 0.5 million people as comparing to the previous year 2015 was 31.2 million individual with growth rate 1.5 % for the same period[26] (Department of Statistics Malaysia, 2016).The labour work force in Malaysia is defined as for aged group 15 to 64 years.

The unit of analysis in the present research is individual consumers aged 18 years 59, around the selected malls. Subsequently, the recommended sample size is 384 according to [27] Krejcie and Morgan, (1970). Then, the total population is 6.570 million people for the fourth states in 2016: Kedah 2.120, Perlis: 0.250, Perak: 2.480 and Penang 1.720 [26] (Department of Statistics Malaysia,2016)

**Table1:** Sampling Size

States	Population in 2016 (Million)	Required Sample size Krejcie and Morgan (1970)
Kedah	2.120	384
Perlis	0.250	384
Perak	2.480	384
Penang	1.720	384
<b>Total</b>	6.570	1536

Source: Krejcie & Morgan (1970)

### CONCLUSION

The findings of this study can be generalized for Malaysia because it will conducted in the malls that representing shopping centers. This model will show some interesting findings which could be applied for utilization in research on a bigger scale to include the whole of Malaysia especially those who actively involved in consumption patterns of Malaysian food habits. Thus, this research study aims to enhance in the different numbers of the studies on healthy food to

provide a model of consumption patterns that contribute to Malaysian consumers.

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