

**HEALTH INVOLVEMENT, FOOD CHOICE MOTIVES,  
AND ATTITUDES TOWARD HEALTHY EATING  
AMONG ACADEMIC STAFFS AT MAIN CAMPUS  
UMS**

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## DECLARATION

I hereby declare that the material in this thesis is my own except quotations, except, equations, summaries and references, which have been duly acknowledged.

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'My Special Sense of Appreciation'

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## ABSTRACT

### HEALTH INVOLVEMENT, FOOD CHOICE MOTIVES, AND ATTITUDES TOWARDS HEALTHY EATING AMONG ACADEMIC STAFFS AT MAIN CAMPUS UMS

Health becomes very important and has been a matter concerned to consumers. The research aimed to investigate health involvement toward attitudes of healthy eating that is mediated by food choice motives in a random sample of 255 academic staffs in main campus Universiti Malaysia Sabah (UMS) in Kota Kinabalu. The research used the model which adopted from Roininen *et al.* (1999) and Steptoe *et al.* (1995). Questionnaire consisted of three parts, such as self-perceived dietary behavior (Kearney *et al.*, 1999), health involvement (Roinen *et al.*, 1999), and food choice questionnaire (Steptoe *et al.*, 1995) were used to obtain attitudinal information regarding health. Regression analyses tested the mediator and predictor relationships for each motives respectively. Health involvement did statistically associated with all food motives, except for convenient motive and ethical concern motive. Interestingly, nutritional content motive (weight control and natural content) and price motive were statistically associated with attitudes of healthy eating. As a result, only nutritional content motive were statistically mediated between health involvement and healthy eating attitudes. The study was essential to nutrition educators in promoting the nutritious products regarding the motives of individual food choices.



## **ABSTRAK**

### **PENGLIBATAN KESIHAAN, MOTIF-MOTIF PILIHAN MAKANAN, DAN SIKAP-SIKAP KE ARAH PEMAKANAN SIHAT ANTARA PEKERJA-PEKERJA AKADEMIK DI KAMPUS INDUK UMS**

*Kesihatan menjadi amat penting kepada pengguna-pengguna. Kajian ini membincangkan penglibatan kesihatan ke arah sikap-sikap tentang pemakanan sihat diantarakan oleh motif-motif pilihan makanan dalam satu sampel seramai 255 pensyarah di kampus induk Universiti Malaysia Sabah (UMS), Kota Kinabalu secara rawak. Kajian ini menggunakan model yang diperolehi daripada Roininen et al. (1999) dan Steptoe et al. (1995). Soal selidik mengandungi tiga bahagian, seperti self-perceived dietary behavior (Kearney et al., 1999), penglibatan kesihatan (Roininen et al., 1999), dan soal selidik pilihan makanan (Steptoe et al., 1995), untuk memperolehi maklumat sikap mengenai kesihatan. Kaedah regression menganalisiskan penghubungan antara pengantaraan dengan peramal untuk setiap motif. Penglibatan kesihatan mamang secara statistik dikaitkan dengan semua motif-motif makanan, kecuali motif kesenangan dan motif kebimbangan beretika. Motif kandungan pemakanaan ((kawalan berat dan kandungan semula jadi) dan juga motif harga yang dikaitkan dengan sikap-sikap pemakanan sihat secara statistiknya. Keputusannya, hanya terdapat satu-satunya motif kandungan pemakanan secara statistiknya diantarakan antara penglibatan kesihatan dan sikap-sikap pemakanan sihat. Kajian ini adalah penting kepada pakar nutrisi dalam mempromosikan produk-produk yang berkhasiat mengenai motif-motif makanan individu.*



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## CHAPTER 1

### INTRODUCTION

#### 1.1 Background

World Health Organization (WHO) defined health as “state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity”. This definition has been further defined that “the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition” (WHO, 2008).

Healthy eating means having a balanced diet or eating proper meals which more in fibre and less in fat. The awareness of diet-health link and “healthy eating” are becoming a familiar concept. Although people do have knowledge on the relationship between diet and health, eating attitudes was still remaining unhealthy and the consumption of fruits and vegetables were still remain below the standards of sufficiency (Brown, McIlveen, and Srugnell, 2000). Besides, ‘perceptions of healthy eating’ considered as one of factors influencing people’s eating habits were generally based on food choice which defined as health professionals’ meanings, understanding, views, attitudes, and beliefs about eating for health (Paquette, 2005).

Obesity is a major growing global health concern. Overweight and obesity typical resulted from over-eating unhealthy diet and lack of enough exercises. In 2008, 1.5 billion adults were overweight, while over 200 million men and nearly 300 million women were obese (WHO, 2008). Moreover, WHO had also projected approximately 2.3 billion adults will be overweight and more than 700 million will be obese by year 2015. Obesity linked to several serious medical conditions and increases the risks of getting cardiovascular disease, type 2 diabetes, musculoskeletal disorders, and some cancers, including endometrial, breast, and colon cancer.



According to Abood, Black, and Feral (2003), diseases such as coronary heart disease, cancer, stroke, and diabetes mellitus, are directly related to nutrition which causes of death in the American adult population. Their choices in selecting foods determine the kinds of nutrients enter their body. For those who are stressed and concerned on nutritional information increased the willingness in consuming foods which good for them and low in fat. Their consciousness and involvements in health are the issues to be concerned and aware of (Wadolowska, Babicz-Zielinska, and Czarnocinska, 2008).

The rapid growth of the food market indicates a shift in factors involved in consumer selection and the inclusion of health benefits with traditional indicators, for example, *taste*, *price*, and *convenience*, in determining the value of a food product. Also, demographic variables, for instance, gender, age, education, social class, and their effect on attitudes about food, nutrition, health, and food choice behavior, are significant predictors of importance of *taste*, *nutrition*, *cost*, and *convenience* to individual (Glanz, Brazil, Maibach, Goldberg, and Snyder, 1998) in explaining food cognition, as well attitudes or food consumption (Rappoport, Peters, Downey, McCann, and Huff-Corzine, 1993). Personal attitudes and beliefs, as well cultural context, do influence the food choice motives for consumers (Kearney & McElhone, 1999).

Prescott, Young, O'Neill, Yau, and Stevens (2002) found that *health*, *natural content*, *weight control*, and *convenience* are the most important factors among the consumers in Malaysia out of nine factors in food choice motive. Whereas, *familiarity* was rated as the least important for Malaysian, and *ethical concern* was rated as unimportant for them as well. Among Chinese community in Malaysia, promoting foods according to the *natural content* is the proper strategy in the food markets. Besides *natural content*, the combination of the knowledge and sensory properties are essential in product development for variety of foods. Hence, realizing the different types of

knowledge regarding the consumer's value is the strong approach to the new development of new food products for the promotion purposes.

## **1.2 Problem Statement**

Health becomes very important to consumers, and they are very concerned about safety and risk-related issues, and functional qualities of foods. Hence, one's health of eating a specific food is much depending on trust seldom is ascertained after consumption.

Several past studies (Tudoran, Olsen, and Dopico, 2009; Hearty, McCarthy, Kearney, and Gibney, 2007; Eertmans, Victoir, Notelaers, Vansant, and van de Bergh, 2006) attempted to focus on the relationship between socio-demographic, lifestyle and health concerns, food choice motives, attitudes toward healthy eating and eating behavior. However, there were few studies (Fotopoulos, Krystallis, Vassallo, and Pagiaslis, 2009; Honkanen and Frewer, 2009; Prescott *et al.*, 2002) studied regarding the motives for food choice in healthy eating. None identified the interrelationships among the predicting variables as role of food choice in motivating the attitudes toward healthy eating because of the reason of health involvement (Ares and Gambaro, 2007; Lake, Hyland, Rugg-Gunn, Wood, Mathers, and Adamson, 2007; Croll, Neumark-Sztainer, and Story, 2001). Therefore, the choices of food play a role as mediator in mediating the attitudes of eating healthily with the health involvement among academic staffs was investigated in this study.

## **1.3 Research Question**

The main research questions of this study are:

1. What is the relationship of health involvement toward healthy eating attitudes?
2. What is the relationship of health involvement on the motives of food choice factors?
3. What is the relationship of food-choice motives toward healthy eating attitudes?





4. Does role of food-choice motives mediate the relationship between health involvements toward healthy eating attitudes?

#### **1.4 Research Objectives**

The objective of this study is to evaluate the food choice motives as mediating role of health involvement toward healthy eating attitudes.

- a. To identify the relationship between health involvement toward healthy eating attitudes.
- b. To identify the relationship between health involvement on the food choice motive factors.
- c. To identify the relationship of consumers' motives underlying food choice in their attitudes toward healthy eating.
- d. To evaluate the food choice motives as mediating role of health involvement toward healthy eating attitudes of academic staffs at UMS.

#### **1.5 Scope of Study**

The scope of the study was being limited to academicians in main campus Universiti Malaysia Sabah (UMS), Malaysia's ninth public institution of higher education located in Kota Kinabalu, the capital city for the state of Sabah in East Malaysia (UMS, 2011) with target to obtain a valuable local data.

In addition, the study focused on the attitudes of healthy eating among academicians due to the importance of health issues, as well motivated by the choices of foods.

#### **1.6 Significant of Study**

Healthy eating is the hottest topics in food industry, as well as food and beverage restaurant. In respond to the rising obesity levels within the Malaysia population, government has pledged to improve the health problems of the nation. Many of these initiatives have focused on the food manufacturers; with the spotlight on fat, sugar

and salt in processed foods, and the activities of the food advertising industry (Brown *et al.*, 2000).

If individual does believe on the nutritional value of a food is essential for them in making decision of what food to consume, so he or she will choose the food which is highly nutritious (Glanz *et al.*, 1998). Hence, food choices are basically important for food product development, marketing and influence consumers' nutrient intake as it is a good chance of what foods consumers will choose to buy and eat (Furst, Connors, Bisogni, Sobal, and Falk, 1996). Understanding the determinants of food choice can help the health professionals in providing an effective nutrition education and counseling, developing food plans which are satisfied their clients and patients (Thomas, 1991). Health professionals and food marketers will have the idea in developing and producing foods according to the customers' preferences. Perhaps, it may create a successful advertisement and promotional campaigns in generating high sales of foods and increase the awareness of the brand-name products.

It is essential of the study that nutrition educators are aware of the proportion of subjects in the population who are concerned about nutrition, both in terms of health maintenance and in terms of food at the outset of campaigns for the promotion of healthy eating. Furthermore, they should consider of being tasty and inexpensive for designing and promoting the nutritious products.

## **1.7 Definition of Key Terms**

The study is to evaluate the mediating role of food choice motives onto health involvement toward healthy eating attitudes.

### **1.7.1 Health Involvement**

Health involvement is defined as consumer behavior which a person's perceived relevance of the importance attached to health matter based on individual inherent needs, values, and interests (Solomon, 2004).



### **1.7.2 Mood**

Mood motive whether positive or negative emotions found to be potentially influenced the food choice (Honkanen and Frewer, 2009).

### **1.7.3 Natural Content**

Relate to foods that are free of additives, artificial ingredients, coloring and flavoring agents (Wadolowska *et al.*, 2008).

### **1.7.4 Convenience**

Relates to availability for consumers to purchase and prepare foods (Steptoe, Pollard, and Wardle, 1995).

### **1.7.5 Health**

Relates to variation of diets consists both general that is good for consumers and specific that is high in nutritional information (Steptoe *et al.*, 1995).

### **1.7.6 Weight Control**

Relate to weight controlling in diet which is low in calories and fat (Roininen and Tuorila, 1999).

### **1.7.7 Sensory Appeal**

Relates to the taste of the food whether it tastes good, nice and attempting in making choices between less healthy and healthier foods (Roininen and Tuorila, 1999).

### **1.7.8 Price**

Relates to the food purchased is cheap, value for money (Steptoe *et al.*, 1995).

### **1.7.9 Familiarity**

It relates to persons onto food which is familiar to them due to the food taken is they usually had since their childhood or usually eat (Eertmans, Victoir, Vansant, and van den Bergh, 2005).

### **1.7.10 Ethical Concern**

Ethical concern motive is related to the choice of organic foods (Chen, 2007; Honkanen, Verplanken, and Olsen, 2006).

### **1.7.11 Healthy Eating Attitudes**

Fundamental assumption which underlying the availability of information on personal attitudes and beliefs in some way guide, influence, direct, shape, and predict actual behavior (Kraus, 1995). This information can also ease the conception of the essential of factors which influence the food choice (Kearney and McElhone, 1999; Saba and DiNatale, 1998).

## **1.8 Summary and Research Outline**

Chapter one had outlined the overview of current health issues, problem statements, research questions, research objectives, significant of study. The definition of key terms had been discussed too.

As for the chapter two discussed on past studies of their findings on health involvement, food choice motives toward attitudes of healthy eating. Moreover, this study discusses on the literature of previous studies in fulfill the gap among those variables and factors.

Chapter three outlines research methodology used in this study. The sample sampling, theoretical framework, research hypotheses, research questionnaires, and analytical statistic used to analyze the collected data were discussed.

While for the chapter four reviewed of the result of this study. The collected data were analyzed by using SPSS version 17.0 and the results were interpreted and reported.

Chapter five discussed of the finding that regarding the results which had been discussed in chapter four whether the hypotheses were being accepted or rejected. This chapter also discussed on the conclusion, limitation of the research, and implication and suggestion for this study.



## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter reviewed the past studies which had been conducted on the relationship between health involvement and healthy eating attitudes, relationship between health involvement and food choice motives, and relationship between food choice motives and healthy eating attitudes. The aim of the study is to evaluate the food choice motives as mediating role of health involvement toward healthy eating attitudes.

#### 2.2 Theory

Although previous studies tried to investigate relationships between demographic profile and health concerns, food choice motives, healthy eating attitudes and behaviors, none identified relationships among the mediator factors mediating health involvement and attitudes toward healthy eating (Ares and Gambaro, 2007). According to Rudd and Glanz (1990), people analyzed messages with existing values, beliefs, and behaviors are categorized as cognitive theories of psychology.

Value-attitudes-behavior hierarchy model, a comprehensive theoretical approach was tested to understand consumers' behavior influenced by their personal values orientation which is effective to be used to evaluate consumer behavior toward food objects. (Vaske and Donnelly, 1999). According to Doran (2009), personal values served as behavior decisions in consumption behavior in order to achieve desired end states or values. Value-attitudes-behavior hierarchy has been developed and validated in healthy food consumption.

Value initially referred as enduring belief that extent to which health is a specific mode of conduct or end-state which personally preferable to its opposite (Rokeach, 1973). While attitudes defined as a state of mind or feeling (Allport, 1935), learned predispositions (Fishbein and Ajzen, 1975), psychological tendencies (Eagly and Chaiken, 1993), evaluative judgments (Aikman, Crites, and Fabrigar, 2006) with regard to some matters and then guide behavior, response of an individual toward those matters. Williams and Hammit (2001) suggested values become criteria for judgment, preferences, and choice which influence on following behaviors. Moreover, difference values had shown significant difference in attitudinal and behavioral outcomes.

This study proposed a model relating consumers' health involvement value to their attitudes toward healthy eating that mediated by the motives of food choice according to the value-attitudes-behavior approach (Vaske and Donnelly, 1999). This sequence called the value to attitudes to behavior hierarchy as the flow is start from health value to healthy eating attitudes to specific motives in food selection behaviors.

### **2.3 Health Involvement**

The concept of involvement as "a person's perceived relevance of the object based on inherent needs, values, and interest" has represented consumer behavior (Solomon, 2004). Health involvement was defined by Solomon (2004) as personal relevance and importance is attached to health matter, which related to their inherent needs, values, and interests.

People who concerned about health were consumed more fruits and vegetables and dairy products, but lesser consumption of saturated and Trans fats (Zandstra, de Graaf, and van Staveren, 2001; Wardle, Parmenter, and Waller, 2000; Drewnowski and Hann, 1999). However, consumers who were not interested in the food intake and care of their health chose what they like to eat which compatible with their preferences (Wadolowska *et al.*, 2008).



## 2.4 Healthy Eating Attitudes

Healthy eating behavior means getting well-balanced between different foods, which are low in consumption of saturated fat, refined sugar, and salt and higher consumption of complex carbohydrates, oily fish, and fibre from fruits and vegetables (WHO, 2003). Health of a person greatly affected by personal eating habits, were the major cause of poor health which triggering to serious illness, for example, coronary heart disease, cancers, strokes, and diabetes (WHO, 2003). Therefore, healthy eating plays an important role in good health, in the prevention of such illnesses, as well for healthy growth and cognitive development especially for children and young people (Boumtje, Huang, Lee, and Lin, 2005).

Boutelle, Birkeland, Hannan, Story, and Neumark-Sztainer (2007) evaluated the relationship between maternal concern for healthful eating and maternal eating behaviors and home food availability. Hereby, mother plays an important role in concerning about their children's eating behaviors. There is a positive relationship shown between these variables that mothers are very concern of the behaviors toward healthy eating, and prefer to prepare foods that high in fruits, vegetables, and dairy products and serve at home. The improvement of how was maternal eating behavior and home environment is highly associated with the concern of maternal eating healthfully.

Female with high educated and increasing in age were more concern about nutrition and health, thus, they had the highest probability in selecting diet as their health priority compared to the male (Kearney, Kelly, and Gibney, 1998). However, male with tertiary level education were more likely concern about nutrition and health. This study shown that education level is positively and strongly associated with the attitudes and beliefs regards eating a healthy diet actually is good for health.



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