FACTORS RELATED TO HEALTH FOOD CONSUMPTION BEHAVIOR OF UNDERGRADUATE STUDENTS IN RAJABHAT UNIVERSITY OF BANGKOK METROPOLIS

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Abstract- The purposes of this research is to study factors related to health food consumption behavior of undergraduate students in Rajabhat university of Bangkok metropolis. This resasearch was intended to investigate 1) To study the personal factors, family factors and marketing mix factors of undergraduate students in Rajabhat University of Bangkok metropolis. 2) To study health food consumption behavior of undergraduate students in Rajabhat University of Bangkok metropolis. 3) To study the relationship between personality factors, family factors and marketing mix factors, health food consumption behavior of undergraduate students in Rajabhat University of Bangkok metropolis. By using the questionnaire collects data from 400 sampled. The data were analyzed by frequency, percentage, mean, standard deviation, Chi-square and Pearson's Product Correration Coefficient define the statistical significance level .05 Most of respondents were females age between 18 – 20 years old, studying the first year of Food industry and service, faculty of management science, Most are residential style living houses for rent. Their monthly average incomes were in the range 3,001 – 5,000 Baht Family factors most parents graduating grade 6 or 7. General contractor with a career average monthly income of a family is in the range of 20,001 – 30,000 Baht and the number of family members is in the range of 4-5 people. Marketing mix factors found that products based on healthy food labels identify the product date clear. Health food with quality certificates and standards according to the requirements of the Ministry of public health and a health food-shaped luxury with the convenient packaging and consumption. Health food consumption behavior, healthy food choices for side consider buying from "FDA" food cleanliness and neatness of the food packaging. To study the relationship between personality factors, family factors and marketing mix factors, health food consumption behavior of undergraduate students in Rajabhat University of Bangkok metropolis. The results found that 1) For personal factors, their age and average income significantly related to health food consumption behavior. Form healthy dietary pattern 2) Disciplines and universities are significantly related to health food consumption behavior, the attitude to food health side. 3) A study of the father significantly related to health food consumption behavior,sided type of health food. 4) Dietary characteristics of the family,significantly related to health food consumption behavior, sided type of food for health: healthy food consumption patterns. Selection of food for health and food news,information,awareness health. 5) The marketing mix collateral overview of healthy dietary pattern,healthy food choices for sides,healthy food attitude towards the side,and cognitive health food news. Statistically significant at the .01

Index Terms- Personal factors, Family factors, Marketing mix factors, Consumption Behavior, Health Food, Rajabhat University

I. INTRODUCTION

At present, the trend of consumer behavior of the population changed by the emphasis of health care and security is getting more and more popular continuously. This is evident from the popularity of clean food and organic food, which is not limited to the elderly or working-class people, but also expands to cover new Generation Y and Generation Z. In addition, other factors in the distribution channels make it easier for consumers to make purchasing decisions. This result from new innovations in food production developed to be diverse and to suit the lifestyle of today's urbanites and the displayed nutrition information, these factors that encourage healthy food to grow. According to Euromonitor International's survey, the market value of healthy food and beverages is expected to grow at an average annual growth rate of 6-7 per cent per year, and it is projected that by 2017 the market value may reach 1 Trillion USD. The giants like China, Brazil, and the United States are in the top 1 in the list of health food consumers. While Thailand is ranked 19th after ASEAN countries, Indonesia is the only one. But interesting is the neighboring countries like Vietnam and Cambodia; it has a small market value of health foods from Thailand, ranked 20th and 21st. In addition, there are other countries, including India, Japan, South Korea and Saudi Arabia, the market value of healthy food is the top rank in Asia and is a very attractive market for Thai entrepreneurs. (Food and Beverage Industry Research Center, 2013)

On the part of the government, it is important to correct the health crisis by the Prime Minister. The National Health Act has been started since 2007 for the purpose of reforming the health system (The

National Health Commission, 2013), which can be regarded as the Thai Health Master Law. The direction of the health system; focusing on health promotion, disease prevention and reduction of illness; emphasizing the development of participatory health policies and strategies from all sectors, including the academic sector; concentrating on professions related to public health, politics and government which enhance the health of the Thai people; focusing on guaranteed quality health standard. According to the National Health Act BE 2007 is the first health law, because of the above, the researcher wanted to study factors related to healthy eating behavior of undergraduate students in Rajabhat Universities of Bangkok Metropolis. How are the healthy eating habits? And what factors have correlated with the behavior leading to the correction. Long-term health problems in the people focusing on the student group the reasons were because it was a learning age, new things in life start to mature, and a simple age to change behavior. This research will benefit the university to educate and to provide suggestions for food consumption through exhibitions and student project or develop a course related to healthy food. As well as within the university, the research will be developed into a health food business including the campaign for healthy eating habits as a community of well-being and transfer knowledge to the next generation.

II. OBJECTIVE

1. To study the personal factors, the family factor, and the factors of marketing mix of the undergraduate students in Rajabhat Universities of Bangkok Metropolis.
2. To study the healthy eating habits of the undergraduate students in Rajabhat Universities of Bangkok Metropolis.
3. To study the relationships between personal factors, the family factor, and the marketing mix factors and the behaviors of the healthy food consumption of the undergraduate students in Rajabhat Universities of Bangkok Metropolis.

III. RESEARCH METHODOLOGY

A. Population and Sample

The population used in this study was the students of Rajabhat University in Bangkok. There were students studying 103,154 people (information from the Information Society, the Office of the Higher Education Commission, 2015) which has sampled based on Yamalan's calculations. (Yamane, 1973), 400 people, then used the method of the Multistage Random Sampling.

B. Research Tools

The tools used in the research were divided into 5 sections as follows: Section 1 Personal Factors, Section 2 Family Factors, Section 3 Marketing Mix Factors, Section 4 Healthy Consumption Behaviors, Section 5 Open Questionnaire to collect the comments, problems and suggestions.

C. Data analysis

Data analysis used frequency, percentage, mean, standard deviation, Chi-square test statistic methods and the method of Pearson's Correration Coefficient.

IV. RESEARCH AND DRITICISM

The results of the study on factors related to the consumption behaviors of healthy food of undergraduate students, from Rajabhat Universities in Bangkok Metropolis. The research indicated as the following.

1) The personal factors information of the respondents.

Most of the samples were 271 females or 67.8%. They were 18-20 years old amounting to 213 females or 53.3% of them. They were the 1st year student amounting to 123 students, accounting for 30.8%. And a total of 42 people, representing 10.4 percent of the Faculty of management Science, 179 people, representing 44.8 percent. The residents were mostly residents of the dorm / house numbering of 197, representing a percentage of 49.2. A study of the average monthly income was in the range of 3,001-5,000 baht of 109 people, representing 27.2 per cent. Most of the respondents were females, this is in consistent with the research of, for example, Kriatiyot Kongprasert (2015) reviewed, who has studied the factors affecting the consumption behavior of healthy students in the undergraduate level at Naresuan University, he found that most respondents were female. The researcher has concluded that females have been more interested in eating healthy foods than males because of paying more attention to health care. At present, it is evident that the products available in the market are produced for the health of females rather than males such as skin care products, dietary supplements, cosmetics, and other products. This is consistent with the research of Naparat Wattana (2011) she has focused on the factors influencing the decision to consume salads of undergraduate students in the Faculty of Economics at Chiang Mai University, the research has found that students has been more concerned about shape and health, especially female.

2) Family Factors of the Respondents

A. General characteristics of the family

From the general characteristics of the father's family education, most of them had 95 or 23.8% of their parents graduated at grade 6 or 7. Their mother's educations graduated at grade 6 or 7 were 98 people or 24.5 percent. Their fathers' occupations, 122 people of whom were employed in general employment or 30.5 percent. Their mothers' occupations, there were 107 general practitioners working in the household, 26.8 percent. The average monthly income of the family

was between 20,001-30,000 baht, 116 people, or 29.0 percent. The number of family members was in the range of 4 - 5 people, 288 people, or 70.5 percent.

B. Characteristics of food consumption of the student family

Based on the sample of the food consumption patterns of the family members; there was a frequent cooking ($\overline{X}$ = 3.41, S.D. = .853); the family had dinner together, frequent practice ($\overline{X}$ = 3.01, S.D. = .915). Students who answered the questionnaire on the food characteristics of the student's family, there were the activity of cooking often and having dinner together. This is consistent with the research of Waraporn and Itsara (2010), states that the family is the smallest social unit influencing on behavioral determinants and dietary decisions. Emotional or repetitive behaviors are most easily started by families. Therefore, family members should focus on food consumption, cultivate good habits which families provided food, and the cooking should take into account the value of food. The family time for food consumption builds the relationship of the family, and it is a good time to give advice on how to transfer knowledge about healthy food to students.

3) Marketing Mix Factors of the Respondents

Table 1 Mean and standard deviation of marketing mix factors of undergraduate students in Rajabhat Universities of Bangkok Metropolis with each aspect and overview

Marketing Mix Factors of undergraduate students in Rajabhat Universities of Bangkok Metropolis	Level of Comments		
	$\overline{x}$	SD.	Results
1. Product	3.85	.598	Very much
2. Price	3.76	.710	Very much
3. Place	3.55	.575	Very much
4. Promotion	3.55	.720	Very much
Overall	3.66	.516	Very much

A. Product

The students who answered the questionnaire obtained the results of the analysis. Firstly, the healthy food was labeled with the date / month / year of the production. Secondly, healthy food had a quality label and international standards followed the guildelines of the Ministry of Public, in addition, healthy food looks good, and the packaging was convenient to consume. Lastly, the healthy food was well-known, and the brand was recognized for its quality. It could be seen that the importance of the date of the production was indicative of the freshness and cleanliness of the healthy food, because the healthy food consumers was quite emphasized. Moreover, there were quality assurance from the government or private sector also affects the decision to buy. This is in line with the research of, Kriatiyot Kongprasert (2015), who study the factors affecting the health behavior of undergraduate students at Naresuan University, the study find that the most importance is the date of production of fresh food, which this is consistent with Kotler (1997), it discusses the level of product that is associated with the condition or what the customer expectation (Expected Product) is the expectation of the customer to purchase that particular product or service such as expect to have a delicious taste, clean, hygienic, etc.

B. Price

The students who answered the questionnaire obtained. The first was to have the clear price tag followed by the appropriate price. Lastly, the price was right for the consumers. The results of the analysis are consistent with Kriangkrai Kuntatham (2010), which has investigated the factors influencing consumers' choice to the friendly restaurants in Chiang Mai Municipality.

The study indicated that consumers value the menu with a clear price. Therefore, the importance of having a clear price tag is because of consumers, when they see a clear food price, consumers can determine whether they should consume and consider the value for money. This is consistent with the marketing mix concept, Kotler (1997) states that the amount paid to obtain a product the customer compares the value of the service with the price. If the value is higher than the price, the customer decides to buy. Therefore, the pricing should be appropriate for the service level. Pricing is appropriate for the product.

C. Place

The students who answered the questionnaire obtained the results of the analysis. Firstly, it could be purchased from the mall / supermarket, and could be purchased from convenience stores such as 7-eleven, family mart, and retail stores. Lastly, it could be purchased by Mail order. The results of the analysis are in agreement with Sarakul Sukrotprommee, Sudaporn Kuntunbutr, and Kanokporn Chaimprasit (2007), which the study is conducted to study the behavior of dietary supplement for health of working people in Rajamangala University of Technology Thanyaburi. The study find it is important to have a lot of agents because of convenient and fast. So maybe it is because most of the students live in dormitories around campus. There are a lot of shops and operators in the area around the university there is a lot of trading, making it easy to buy. This is in line with the 6Ws 1H concept of consumer behavior, it is about the market to get the answers to the 7 O's. Chattayaporn (2007) states that the distribution of products to facilitate the purchase needs, customer do not have to travel far this save time and money on travel including the convenience of buying products quickly to eat.

D. Promotion

Students who responded to the questionnaire received the analysis. The first was to publish through media such as magazines, newspapers, media, television, radio and online media; and promoting health food product marketing. Lastly, promotional activities were included such as sample discount, give discount coupons. The results of the analysis were in agreement with Pimlak Sawasdee (2009), which has

studied on consumer behavioral habits of consumers in Lak Si district, Bangkok. The study has found that promoting marketing is the most important aspect of public relations. We can see that the communication regularly considered as a stimulus for buying needs. This is consistent with the concepts of Kotler (2006), argues that consumption behavior with promotional stimuli is activated by advertising, salespeople, giveaway, and price reductions reinforces good relationships with consumers.

4) The healthy eating behavior of the respondents

Table 2 Mean and standard deviation of the healthy eating behavior of the undergraduate students in Rajabhat Universities of Bangkok Metropolis with each aspect and overview

Healthy eating habits of undergraduate students in Rajabhat Universities of Bangkok Metropolis	The levels of practice		
	$\bar{x}$	SD.	Results
1. The type of healthy food	2.79	.457	Moderate consumption
2. The patterns of the healthy food consumption	2.89	.560	Moderate consumption
3. The choice of healthy food	3.13	.471	Moderate consumption
4. The attitude of healthy food	3.08	.453	Moderate consumption
5. The perception of health information	3.05	.498	Moderate consumption
Overall	2.97	.371	Moderate consumption

A. The type of healthy Price

The students who responded to the questionnaire obtained the result of analysis. The first was the consumption of green vegetables such as kale, morning glory, basil, basil, followed by fruit with high vitamin E, such as banana, mango, and jackfruit. Moreover, fruit with high beta carotene content was such as chopped cantaloupe orange. The last was to take lotus seeds, roasted oatmeal, and boiled corn. Students have the knowledge of nutritional value, this help them make sure how to buy healthy food and to know that it is useful or useless food. As a result, students choose to buy food properly.

B. The patterns of the healthy food consumption

The students who responded to the questionnaire obtained the result of analysis. Firstly, the pattern of the healthy food consumption was dinner. Secondly, it was followed by lunch, and snacks and desserts. The last was breakfast meal, moreover, the form of eating in the meal such as rice, coarse rice, brown rice, soy products such as tofu soup, tofu stewed with fresh vegetables or boiled vegetables, such as chili paste, and spicy minced meat salad. Food with vegetables is a component, such as gourd soup, Chinese vegetable stew. This may be due to the differences of each family which has reasons including racial, religion, and national traditions as well as physical condition for the treatment or the belief of the family.

C. The choice of healthy food

The students who answered the questionnaire received the analysis. Firstly, when considering the purchase from the mark of “FDA”. The second was to consider food cleanliness and to consider the suitability of food packaging. The last was to determine the value of each type of healthy food. It may be because students have knowledge about the value of food, therefore, it is a key reason for making a consumer decision. The student's preference for healthy food is due to the student's emphasis on nutrition. Product factors should be of good quality, safety packaging on the label "FDA", to consider the reliability for the students themselves that will be better health.

D. The attitude of healthy food

The students who responded to the questionnaire obtained the result of analysis. The first was to eat the right amount of healthy food is important and essential to the body. The second was to eat fruits and vegetables on a regular basis which was important to health, and eating a variety to fully five among each group that will keep you healthy without having to eat healthy food. Finally, the consumption of healthy food was a fashion because consumers were now aware of the importance of health itself. Health knowledge how to eat and the selection of all 5 groups of food, this is in line with the Podjanee Pueankham (2011), has studied the attitude towards health food consumption in Chiang Mai. It has found that attitudes decided to consume healthy food came from want to have good health, such as eating for beautiful skin and weight control etc..

E. The perception of health information

The students who responded to the questionnaire obtained the result of analysis. Firstly, getting information about healthy foods was from TV, radio, newspapers, and the internet. The second was to get the knowledge about healthy food consumption which had a positive effect on nutritional status of body, and to study the benefits of healthy food before making a decision. The last was to ask family members before buying healthy food. The concept of Kotler (2006) states that consumption behavior and promotional stimuli are activated by advertising, using salespeople, offering giveaways, and reducing prices. This creates good relationships with consumers.

CONCLUSION

Students in the questionnaire were aged 18-20 years, which the target population of the research was intended to collect information from the students. Therefore, the age of the target group was in the same range of age data, students who completed the first year of the department of the food and service industries, the Faculty of Management Science. This may be seen nowadays’ students who are beginning to pay more attention to health, based on a review that is not consistent with Naparat Wattana (2011), the study

find that most of the students are in the 4th year, so the different contexts result in the different results, such as the time of study, where to study, and the sample group. Most of the respondents lived in a dormitory / rental house. The average monthly income was in the range of 3,001 - 5,000 baht. Most students did not have their own income. It also required income from the support of the father and mother, so students did not earn a lot so they were careful to spend to use for living and paying student accommodation while studying at university. The prices of most healthy foods were higher than the prices of common foods, because the raw materials used in making the emphasis on nutrition and Non-Toxic Products. Therefore, if the price is clear, it gives consumers a comparison before making the purchase decision correctly.

Students who responded to the general questionnaire of the family, most of the parents studied, finished grade 6 or 7, engaged in general employment. The average monthly income of the family was in the range of 20,001 - 30,000 Baht. The family members were in the range of 4-5 people. According to the concept of factors related to food consumption, Napat (2008) states that family members are influenced by their thoughts and values which influence their family's consumption behavior. That is, the level of education affects the consumption behavior, different levels of education affect beliefs including individual attitudes, knowledge of food value comparing with the income and number of family members is one of the important reasons to decide on consumption, which people choose to consume food because of the importance of nutritional knowledge. Therefore, the parent's educations are important to the family's food consumption.

ACKNOWLEDGMENT

The authors of this research would like to thank you the Rajamangala University of Technology Phra Nakhon for funding this research and also assist the authors in every aspect. The author also needs to thank the Weenuttranon family and friends who are so encourage the author. Lastly, the author would like to thank you to the professionals and normal users which give their time to evaluate the system.

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