EXERCISER' S BUYING DECISION OF WHEY PROTEIN IN BANGKOK

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Abstract- The purpose of this research is to compare whey protein buying decision behaviors of exercisers in Bangkok Metropolitan categorized by consumers' personal characteristics. Samples were Bangkokians who exercised and consumed whey protein for more than six months. A set of questionnaires was used as research instrument to collect data from 217 respondents. The data were analyzed using One-way ANOVA. Majority of respondents were male entrepreneurs, aged 18-30, who were single, with bachelor's degrees and with average income of 10,000-20,000 baht. Main reasons for taking whey protein were to build up muscles on parts of the body and to maintain good shape. The hypothesis testing result revealed that two independent variables, the educational levels and the occupations, were related to buying decision behaviors of the consumers who were exercisers in Bangkok Metropolitan with the statistically significant level at 0.05. Moreover, it was found that among the respondents, the decision to buy whey protein was mostly at the 'high level' with the average value of 3.92.

Key words- consumer buying decision, personal characteristics, whey protein

I. INTRODUCTION

Nowadays, we have seen such a great increase of enthusiasm regarding health improvement that it becomes a global trend. People living in big cities pay much attention to self-care and good health. They desire to remain strong and stay healthy. Food and dietary supplements have played major roles in maintaining good health, reducing extra weight, and preventing illness.

The purchase of dietary supplements for good health has become a consumer behavior that is changed over time. People in the urban areas are currently too busy to prepare food that is healthful with 5 nutritional food groups. Thus, dietary supplements have a role to play in the hectic life of the consumers who desire to maintain their good health. Due to a lot of pollution and little time to go exercising, the immune system of people in big cities is usually low and they become sick easily owing to poor health. Produced in the age of new technology, dietary supplements seem to be the solutions for these health lovers. They become an alternative way to preserve good health for the consumers. Therefore, with the increasing demand, the market is growing rapidly. Whey protein becomes popular since it is extracted from milk.

In this technology age, consumers' behaviors have changed tremendously from the past, so it is necessary to study their needs so as to understand their changed behaviors. This study investigated factors

concerning personal characteristics including sex, age, marital status, educational levels, occupations, monthly income, and reasons for taking whey protein. This information enables marketers to better understand their customers so as to better serve their needs and to better respond to the needs of global market more properly.

The global market value of whey protein was at $9.2 billion in 2015, and it is expected that in 2020 this will increase by 6.5% with the value of $13.5 billion. The biggest markets of this product are USA and Europe with 70% market share of the global sales USA and Europe accounting for approx. 80 % of global trade. Large export from the West to the East including China, Mexico and Russia. In the East South Korea, India, Thailand, and Indonesia are major whey importers, with continual increase in sales. This may be because whey protein can be used as ingredients in varieties of food such as pastry, desserts, milk, and ice cream.

At present, the target groups of whey protein include exercisers, athletes, body builders, as well as the fitness enthusiasts of the new generation. This increases the popularity of the whey protein business. The varieties of products related to whey protein have been released to serve the needs of various groups of its consumers and are available for sale through various channels. When consumed after vigorous exercise, whey protein stimulates protein synthesis of the body thereby immediately boosting muscle build-up and speeding body recovery. Exercisers do not need to waste time cooking heavy food after the gym time. This research aims to compare whey protein buying decision behaviors of exercisers in Bangkok Metropolitan categorized by consumers' personal characteristics. The results obtained should serve as useful information beneficial to the business owners or operators who are interested in offering whey protein as their dietary supplement products that suit the customers and boost its market values in the future.

II. LITERATURE REVIEW

Kotler (2016) states that buying decision of consumers comprises 5 steps as follows:

1. Problem recognition: It is the first step when consumers recognize their needs in the product.
2. Seeking solutions of the problem: After recognizing the problem, customers then search for solutions. It may start from trying to recall similar past events and to utilize the existing knowledge about the product and then do the searching for information about the product from two sources:

2.1. 'Internal search' concerns the process of seeing and recalling of the customers about the products. This process is motivated by personal beliefs, attitudes, and past experience. If information from internal search is not enough, then they search from the external sources.

2.2. 'External search' involves sources from people, trading centers, and communities. Sources from people include friends and family members. Trading centers refer to advertisements, employees, and trade fair booths or shops. Communities refer to media, the real use or the testing of products by various institutes.

3. The evaluation of choices: From the searching for information about the logos and brands in step 2, the next step is to consider potential choices from characteristics of the product, evaluating its brands and cost, its image, and prides.
4. Buying decision follows the evaluation of potential choices. This step leads to making decision to buy, which is the response to the stimulation of the product and its characteristics. The decision involves process of learning and establishing attitudes of the consumers. The desire to buy a product will be complete once it becomes action of buying the product. Thus, promotional campaigns can drive the buying decision.
5. After sale evaluation: the buying process does not end when the product is sold to customers. The brands usually receive the feedback for re-buying that may occur in the future. The analysis of the product, the learnt experience and the attitude towards the products create the possibility for re-buying if the customers are satisfied with the results, and if they are not, the possibility is none.

The buying decision may vary according to consumers' behaviors. If we understand consumers' buying decision process, we can then effectively set up marketing strategies that have competitive advantages because customers' needs and behaviors can determine the compliance marketing strategies.

Demographic theories

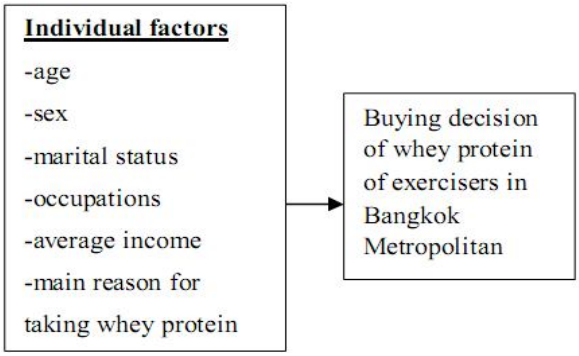
Defleur and Ball-Rokeach (1989) state that behaviors of the individuals relate to biographical or demographic characteristics. Thus, people can be categorized into groups of similar traits, who have similar needs and preferences. People in the same class or society usually choose to accept or respond to similar stimulants, which is known as the S-R theory (Stimulus-Response Theory). Individuals differ according to ages, sex, life cycle, family background, and economic status. All of these factors influence life style as well as their consumption of products and services. Important demographic variables include sex, age, education, and socio-economic status. In addition, there are three related research as follows;

Ozerc (2005) mentioned that it is very important for companies to be informed of customers' new product evaluation. This is because developing new products is a risky and uncertain business process. In order to reduce the risks and uncertainties, companies need to carefully evaluate their new product initiatives and make accurate decisions. Even though the outcome of a new product evaluation decision can be influenced by the environmental uncertainties that are beyond a company's control, companies can still successfully improve the accuracy of their new product evaluation decisions. A framework is presented on how various factors affect decision making in new product evaluation. It provides guidelines for reducing their negative impacts on new product decisions. The results indicate that the quality of new product evaluation decisions is affected by four major sets of factors, namely the nature of the task, the type of individuals who are involved in the decisions, the way the individuals' opinions are elicited and the way the opinions are collected.

Houng (2012) studied major factors that affect buying decision of the consumers in a case study research of vegetables grown for food in Ho chi min City, Vietnam. Findings showed that a large amount of insecticides used in growing these vegetables cause anxiety among consumers and factors that affect their buying decision include price and confidence in the product. With high price but without safety recognition, the consumers' confidence level is low, so is the desire to make purchase.

Bagchi (2015) explored the market positioning of whey protein in the study entitled "Whey protein supplement brand positioning: A multidimensional scaling approach" and found that brand positioning is regarded as an important weapon in any competitive market as it can affect brand recognition of the consumers. The purpose of this study was to investigate factors that influence consumer behaviors and to what extent brand positioning has an impact on brand recognition. It is a qualitative research of which the respondents were 20 INIPE weight lifters and body builders whose average age was 20.85. The data gained were used to compare whey protein purchasing behavior with a set of 8-point scale questions. It was found that brand image and price were the most important factors involving their buying decision.

IV. RESEARCH METHODOLOGY



The research samples

The research samples were Thai exercisers who exercised at fitness centers In Bangkok and have consumed whey protein for at least six months. The total population is unknown.

The scope of research

This study is a survey research in which a set of questionnaire was used to collect data from August to October 2016. With such a small size of population, based on W.G. Cochran's principle of sampling, 217 respondents were obtained using stratified sampling technique after selecting fitness centers in Bangkok using purposive sampling technique. The samples were Bangkokians who exercised and consumed whey protein for at least six months. The respondents volunteered to provide consumer-behavior information on their consent.

The research instrument

The data collection instrument was 217 questionnaires, which were tested with content validity using Cronbach for coefficient of alpha reliability. The questionnaire was divided into 2 parts as follows:

Part 1: A set of 7 questions on demographic characteristics and variables including sex, age, marital status, educational levels, occupations, average income, and reasons for taking whey protein.

Part 2: A set of 13 questions on whey protein buying decision behaviors of exercisers in Bangkok, which were close-ended response questions using five-point interval scale rating as follows.

4.50-5.00 refers to the highest level of importance
3.50-4.49 refers to the high level of importance
2.50-3.49 refers to the moderate level of importance
1.50-2.49 refers to the low level of importance
1.00-1.49 refers to the lowest level of importance

The questionnaire was tested for reliability before real data collection with 30 samples with similar characteristics. The reliability value of coefficient alpha was 0.745.

V. RESULTS AND DISCUSSION

Among 217 respondents, it was found that there were more male users of fitness centers than female with the age range between 18-30 accounting for 69.60% of the total users. This was followed respondents whose age range was 31-40 (20.70%). Most were single (73.30%) with bachelor's degree of education (71%), business owners (35.90%), and with average income of 10,000-20,000 baht (47.90%). The major reason of taking whey protein were to build up muscles on parts of the body and to maintain their good shape (56.20%).

As for the result on opinion rating scale regarding buying decision behaviors, the decision to buy whey protein was found mostly at the 'high level' with the average value of 3.92 An analysis of One-way ANOVA showed that among variables of sex, age, marital status, educational levels, occupations, average income, and reasons for taking whey protein, , there were only two independent variables: the educational levels and the occupations that affected respondents' buying decision with statistically significant level at $p < 0.05$. The significant values obtained were $p = 0.02$ and 0.03 respectively as shown in Table 1.

Table 1: Hypotheses testing results

Independent variables and individual groups	Samples	Average values of buying decision	Standard deviation	F value
Sex				
Male	192	3.75	0.32	0.38
Female	25	3.79	0.20	(0.54)
Age				
18-30	151	3.74	0.32	1.47
31-40	45	3.83	0.27	(0.23)
Above 40	21	3.73	0.24	
Marital status				
single	159	3.77	0.31	1.26
married	58	3.72	0.29	(0.26)
widowed	0	0	0	
Educational levels				
Below bachelor's degree	14	3.55	0.39	4.03
Bachelor's degree	154	3.76	0.29	(0.02) *
Above bachelor's degree	49	3.81	0.29	
Occupation				
Students	61	3.76	0.25	3.06
Government/ State enterprise employees	23	3.60	0.29	(0.03) *
Company employees	55	3.83	0.28	
Business owners	78	3.75	0.35	

Average income				
10,000-20,000 baht	104	3.73	0.27	0.60
20,000-30,000 baht	42	3.79	0.40	(0.62)
30,000-40,000 baht	34	3.78	0.33	
Above 40,000 baht	37	3.79	0.24	
Main reasons for taking whey protein				
As supplement for nutritional needs of 5 food groups.	44	3.81	0.32	0.86
To build up muscles on parts of the body and to maintain good shape	122	3.76	0.32	(0.42)
Convenience of consumption	51	3.72	0.27	

Therefore, the multiple comparison test was then used to find differential values among each variable with LSD (Least Significant Differences) technique for education and occupation. It was found that there are two pairs of variables that showed differences in whey protein buying decision including educational levels of higher and lower than bachelor's degrees. With the statistically significant level testing at 0.05, the average value of 0.21 and 0.26 were found for different reasons for buying whey protein among respondents with educational levels of higher and lower than bachelor's degrees respectively as shown in the Table 2 below.

Table 2: LSD testing for education level

Educational levels	Below bachelor's degree	Bachelor's degree	Above bachelor's degree
Below bachelor's degree	-	-	-
Bachelor's degree	0.21*	-	-
Above bachelor's degree	0.26*	0.05	-

Note: * p<0.05

In addition, It was found that there are two pairs of variables that showed differences in whey protein buying decision including three pairs of occupations: government officers, state enterprise employees, and students. With the statistically significant level testing at 0.05, the average value of differences was 0.16, while the average value of differences of 0.23 were found among company employees/ government officers/state enterprise employees, and the average value of differences of 0.15 were found among private business owners and government officers/state enterprise employees respectively as shown in Table 3.

Table 3: LSD testing for type of occupation

Occupation	Students	Government/ State enterprise employees	Company employees	Business owners
Students	-	-	-	-
Government/ State enterprise employees	0.16*	-	-	-
Company employees	0.07	0.23*	-	-
Business owners	0.01	0.15*	0.07	-

Note: * p<0.05

CONCLUSIONS

The purpose of this research was to compare whey protein buying decision behaviors of exercisers in Bangkok Metropolitan categorized by consumers' personal characteristics. The data were collected from 217 users of the fitness centers in Bangkok who exercised and consumed whey protein for more than six months. The decision to buy whey protein was found mostly at the 'high level'. Two independent variables were found to affect buying decision were the educational level of bachelor's degree and the occupations of government & state enterprise employees.

RECOMMENDATIONS

1. This study was limited to the investigation of only respondents in the Bangkok Metropolitan area, therefore, further research should be conducted to cover more population in all areas of Thailand to gain more complete picture of current business situations of whey protein consumers.

2. There should be studies on marketing mix of this product in order to gain information concerning buying decisions of the customers. This is important for marketing strategy planning that is suitable for consumers in each target group.

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