RELATIONSHIP BETWEEN MARKETING MIX OF WHEY PROTEIN AND CONSUMER BUYING DECISION IN BANGKOK METROPOLITAN

[1] NARUEBODIN VORAVUDHI, [2]CHALITA SRINUAN, [3]OPAL SUWANNAMEK

[1,2,3]Faculty of Administration and Management, King Mongkut Institute of Technology Ladkrabang, Thailand
E-mail: [1]naruebodin.v@gmail.com, [2]chalita.srinuan@gmail.com, [3]ksopal@kmitl.at.th

Abstract- This research study aims to investigate the marketing mix factors that affect consumer buying decision of whey protein among those who regularly exercise at the fitness centers in Bangkok Metropolitan. The research 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 the multiple regression technique. Research participants were obtained from probability sampling using the purposive sampling technique and stratified sampling technique. Results showed that the 'promotion factor' has most positively influenced the consumers' buying decision (promotion = 0.18) at the statistically significant level of 0.01 followed by the 'place factor' (place = 0.13), and then the 'price factor' (price = 0.11) at the statistically significant level of 0.05, while the 'product factor' did not show the statistically significant relationship with the buying decision at the 0.05 level. It was also found that the squared correlation coefficient value or R-square was 0.28 which means that factors of product, price, place, and promotion could be used to explain the variations of whey buying decision for 28 per cent. Another 78 per cent was related to other factors not investigated in this study

Key words- whey protein, marketing mix, consumer buying decision

I. INTRODUCTION

Nowadays consumers' life style has changed to a more health-conscious one. The trend is that people's expense increasingly involves purchasing health-related products for their healthier life. However, with the fast pace of busy life, consumers find that their time is too limited to maintain the balance of nutritional needs. As a result, we have seen a great increase in health-related business to meet the needs of the customers for stronger and healthier lives. Exercise enthusiasts are not only interested in good health and stronger life, they also desire to maintain a healthy weight and after-exercising recovery. Whey protein enters the market to serve such needs. Marketing mix factors can inform us about how consumers learn best about certain product features. Nowadays consumers increasingly do online research to learn about products before purchase, thus, it is important for business operators to study technology-impacted marketing mix to learn the real needs of the modern customers.

In 2015, the global market value of whey protein was at $9.2 billion and it is expected that in

2020 this will increase by 6.5% and the value can be up to $13.5 billion. The biggest markets are USA and Europe with 70% market share. During 2010-2015. The expenditure in this product has been up to 66 million pounds. In the US in 2015, more than 60% of new protein-related products were launched, 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.. In Thailand, in 2013 the market value was 4.8 billion baht, which is an increase of 1.8 billion baht from 2011. The continual increase is expected to be 6.2 billion baht in 2018 due to the fact that Thai people are increasingly interested in maintaining the healthy life and fitness. There are many more retailers, thus it is

a very competitive market with varieties of marketing strategies to attract more customers. The most frequently-used strategy is the direct sale in fitness centers. Due to its high price and brand credibility requirement, the direct sale seems to better serve the needs of the customers who want to learn about the product quality directly through the retailers. The product is also on sale on the internet and over the counter in retail stores. These two places require a great deal of promotional campaigns. A great amount of budget has been invested in advertising campaigns to increase sales among new target groups including teenagers, office staff, sportsmen, and health enthusiasts. The strategies also aim to maintain its market share in this strong competitive market.

The purpose of this research is to study the marketing mix factors that affect consumer buying decision of whey protein among those who regularly exercise at the fitness centers in Bangkok metropolitan. The result of the study will certainly benefit the business operators who are interested in whey protein to focus on the most useful marketing mix factors as to find the most effective promotion campaign that serve the right target groups and to increase its market value.

II. LITERATURE REVIEW

According to Kotler, (2016), marketing mix refers to a group of marketing tools that are commonly used to achieve market targets. The marketing tool is usually known as the 4 Ps or 'product', 'price', 'place', and 'promotion'.

1. 'Product' refers to an item that is built or produced and offered for trades to serve customers' needs and satisfaction. The product can be intangible or tangible as it can be in the forms of ideas, services, or properties, organization, people, and goods. A product must be valuable in the eyes of the customers to produce sales.
2. 'Price' refers to the amount money that a customer pays for to have the 'product' or its service. It is important for marketers to determine its prices and improve prices to show the values of the product that are actually higher than its price.
3. 'Place' refers to placement or distribution of the product. It consists of organizations and activities involved in the movement of commodities and services from the organizations to markets. Distribution comprises of 2 parts which are distribution channels and product distribution, warehouse, and inventory management.
4. 'Promotion' refers to communication of information between sellers and buyers in the way that can convince, can boost brand recognition, favorable attitudes, and reminders of sales. Tools for promotion includes advertising person selling, promotion campaigns, publicizing and direct sales.

Therefore, marketing mix or 4Ps are regarded as influential factors that can affect consumer behavior which can be created and controlled by marketers.

Kotler (2009) mentions the buying process of consumers or 5 steps in making buying decision of the consumers as follows:

1. Problem recognition which is the first step when consumers recognize their needs in the product.
2. Seeking solutions of the problem: It may start from recalling of the past events and the existing knowledge about the product and then do the searching from the internal search which related to customer attitudes and past experience and external search which involves sources from people, trading centers, and communities.
3. The evaluation of choices is the next step is to consider characteristics of the product, its image, and prides.
4. Buying decision which is the response to the stimulation about product characteristics. The decision becomes action once the customers buy the product.
5. After sale evaluation, the step of feedback and re-buying that can occur in the future if they are satisfied with it.

The buying decision may vary according to consumers' behaviors. If marketers understand consumers' buying decision process, they can then effectively set up marketing strategies that have competitive advantages.

Moreover, empirical studies related to this studies were reviewed as following

Issaac (2009) has introduced the idea of bringing marketing communication to analyze the consumer behavior and its impact. Findings showed that the use of marketing communication tools that offer full services have a significant impact on consumer buying decision and behavior in the way that induce memory about the product and the name of its company. Most questionnaire respondents, who were buyers, indicated that they could remember the product and the name of its company, so they make purchasing decisions. Also, the re-buying occurs due to the influence of marketing tools that offer full services. However, if they find the better offer, they may change to another brand. In addition, it is found that 50% of respondents reported that they have been impacted by the direct sale, which make them realize the caring in the customers. The marketing tools that offer full services seem to be able to attract customers, enhance company's growth and expand its marketing shares.

Nguyen (2015) investigated the impact of marketing mix elements on food buying behavior of supermarket consumers in Vietnam. Empirical evidence from 222 participants shopping at five supermarkets validates a theoretical model, indicating a significant positive relationship between marketing mix variables and food purchasing behavior. Results revealed that product factor exerts greatest influence on consumer buying decision, followed by shopping convenience, store atmosphere, price, promotion and personnel respectively. These findings contributed to the literature relating to retail marketing and have marketing implications for bringing traffic into supermarkets and increasing sales.

III. RESEARCH METHODOLOGY

The research samples

The research samples were Bangkokians who exercised and consumed whey protein for more than 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. Based on W.G. Cochran's principle of sampling, the calacualted sample sized is 217. Total 217 respondents were obtained from probability sampling using the purposive sampling and stratified sampling techniques. The samples were Bangkokians who exercised and consumed whey protein for more than six months. The respondents volunteered to provide consumer-behavior information on their consent.

The research instrument

The data collection instrument is 217 a well-structured 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 consisted of 39 close-ended response questions on the marketing mix factors involving 4Ps in the purchasing decision of whey protein of the exercisers in Bangkok Metropolitan area. Then, the 5 interval rating scale method was used in data computation.

Part 2 consisted of 13 close-ended response questions on the purchasing decision of whey protein of the exercisers in Bangkok Metropolitan.

Five point scale rating are:

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

Before data collection with real samples, the questionnaire was used with 30 samples with similar characteristics and the reliability value of coefficient alpha was 0.930.

IV. RESULTS AND DISCUSSION

According to the correlation analysis, it was found that the relationship between variables was not over 0.75 as shown in Table 1. It was indicated that no multi-collinearity problem among variables. Then, the multiple regression technique was used to determine the factors that relate to consumers' buying decision which were price, place, and promotion.

Table1: Relationships among variables

Variables	Buying	Product	Price	Place	Promotion
Buying	1.000				
Product	.254**	1.000			
Price	.363**	.233**	1.000		
Place	.405**	.275**	.382**	1.000	
Promotion	.475**	.414**	.476**	.508**	1.000

Note: ** Significant level of p < .01
* Significant level of p < .05

Estimated results showed that the 'promotion factor' was found to have most positive influence on the consumers' buying decision (promotion = 0.18) with the statistically significant level of 0.01 followed by the 'place factor' (place = 0.13) at the statistically significant level of 0.05. The 'price factor' was found to have positive influence on the consumers' buying decision (price = 0.11) also at the statistically significant level of 0.05, while the 'product factor' was found to have the least positive influence on the consumers' buying decision and it did not show the statistically significant relationship with the buying decision at the 0.05 level. This study shows that the marketing mix factors that affect consumer buying decision of whey protein among the samples were price, place, and promotion. It was also found that the R-square was 0.28 which means that factors of product, price, place, and promotion could be used to explain the variations of whey buying decision for 28 per cent. Another 78 per cent was related to other factors not investigated in this study as shown in Table 2. Thus, the estimated equation can be written as following.

$$\hat{Y} = 2.03+0.11(\text{Price})+0.13(\text{Place})+0.18(\text{Promotion})$$

Table2: The results of multiple linear regression analysis

Factors that affect buying decision	Coefficient B	Significant level
Constant value	2.03	
Product	0.03	0.45
Price	0.11	0.04*
Place	0.13	0.01*
Promotion	0.18	0.00**

R-square value = 0.28, Adjusted r-square value = 0.27, SEE value = 0.26, F value = 20.47, Significant level of F value = 0.00**

Note: * Significant level of p < .05
** Significant level of p < .01

CONCLUSIONS

The purpose of this research was to study marketing mix factors that affect consumer purchasing decision of whey protein among exercisers in Bangkok Metropolitan. The data were collected from 217 Bangkokians who exercised and consumed whey protein for at least six months.

Among the 4Ps, the respondents' buying decision was found to be mostly due to the 'promotion' factor, which should be given highest attention by marketers. The recommended promotional campaigns include building up product experience among the buyers, distributing product samples, giving discounts to loyal customers, selling discounted sets of products. This can also include providing advice and useful information to general consumers so that they have enough information to make buying decision. Marketers are also recommended to come up with sets of products that are categorized according to consumers' needs such as the product sets for those who desire to build up muscles and for those who are trying to lose weight. Others are collecting stamps so as to redeem premium goods, online marketing that provides easy access for customers to view the products, and the giving delivery service for consumer convenience.

REFERENCES

[1]. Achempong Isaac. (2009). Integrated marketing communication: A customer –

[2]. focused approach marketing modern businesses. Retrieved October 2014, from https://goo.gl/bPkNZz

[3]. The Ninh Nguyen (2015) The Impact of Marketing Mix Elements on Food Buying Behavior: A Study of Supermarket Consumers in Vietnam pp 206-215 September , 2015 from https://goo.gl/wQzUT2

[4]. Chris Schmidt. (2014). The rise of protein in the global health and wellness and supplement arenas examining the global protein surge .

[5]. from https://goo.gl/FmYomN

[6]. Judie Bizzozero. (2016). Global Whey Protein Market to Hit $13.5 Billion by 2020. on 25 January 2016, from https://goo.gl/YluqSy

[7]. Redazione Alimenta. (2016). Whey – a 13.5 billion dollar market in 2020. Posted on 17

[8]. February 2016, from https://goo.gl/2D82FB

[9]. Sports Nutrition in Thailand. .(2015)from https://goo.gl/lALq4Y.

[10]. Sports Nutrition in the US. (2016).from https://goo.gl/tqyP8z

[11]. Meal Replacement in Thailand from https://goo.gl/6Yb5kw

[12]. Sports Nusports Nutrition Bulks UP: UK Market Sales Rise by 27% in two years as one in four brits use the products. Published on 6 July 2016, from https://goo.gl/agnFHd

[13]. Whey Protein Market Analysis, Market Size, Application Analysis, Regional Outlook,

[14]. Competitive Strategies, and Forecasts, 2015 To 2022. From https://goo.gl/QwLXlJ

a. Kotler; and Keller. (2009). Marketing management.

[15]. Philip T. Kotler , and Gary Armstrong. (2016). Principles of Marketing 16th Edition.

[16]. D.C. Montgomery, and E.A. Peck, Introduction to Linear Regression Analysis, John Willy and Sons, New York,1992.

[17]. George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th ed.). Boston: Allyn & Bacon.

[18]. Kline, P. (2000). The handbook of psychological testing (2nd ed.). London: Routledge, page 13

[19]. DeVellis, R.F. (2012). Scale development: Theory and applications. Los Angeles: Sage. pp. 109–110.

[20]. Sports Nutrition Bulks Up: UK Market sales rise by 27% in two years as one in four brits use the products (2016) published on July 6th, 2016 from https://goo.gl/Ukrmc8

[21]. Tage Affertsholt. (2009). International Whey market overview ADPI/ABI Annual Conference. 3A Business Consulting from https://goo.gl/mJ0U1N

★★★