

# Consumer Decision-Making Behavior of Dietary Supplements in Manorom District, Chainat Province

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**Abstract:** This research aimed to study consumers' decision-making behavior in purchasing health food supplements in Manorom District in Chainat Province in order to study the marketing mix that affected factors consumers' purchasing behavior of dietary supplements in Manorom District in Chainat Province and to compare the marketing mix that affected the purchasing behavior of health food supplements of consumers classified by demographic characteristics. The sample group used in the study was 200 consumers who used to consume dietary supplements who lived in Manorom District in Chainat Province. A structured survey questionnaire was used as the main research instrument to collect quantitative data. The statistic used to analyze the data were frequency percentage, mean, standard deviation, t-test statistic and One-Way ANOVA.

The results showed that most consumers would buy dietary supplements once a month with a purchase cost of 500 to 1,000 Baht. Opinions of parents and relatives had influence on purchase decision making of dietary supplements. The points of purchase were mainly leading department stores, shopping centers or supermarkets. The consumers took into consideration the health benefits for sickness prevention as well as weight control when they purchased the dietary supplements.

Comparing marketing mix affecting purchase decision making behavior of dietary supplement of consumers in Manorom District in Chainat province classified by demographics. The research result revealed that: difference in gender was not related to difference in product, price, distribution channel and marketing promotion; and difference in age was not related to difference in product, distribution channel, marketing promotion and price. There was not any difference between marital status, education level and average monthly income. As for occupation, it was discovered that difference in occupation was related to difference in price and promotion but not related to product and place.

**Keywords:** dietary supplements, decision-making behavior, consumers

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## 1. Introduction

The past 5 years have seen the growth of beauty supplement market in overall at high rate. Most of them come from consumers under the age of 30. However, at present, this group has decreased and has the potential to spend on dietary supplements. This means the beauty supplement market has to face more challenges in doing business. The beauty supplement market is showing signs of slowing down. After outstanding growth in the past 5 years, the food supplement market consisting of health food, medicine beauty and the nutritional supplements have been seen to increase physical performance. Currently, the beauty supplement market in Thailand is worth about 14 billion Baht or accounted for 21% of the total food supplement market value. Between 1911 and 2015, this market experienced remarkable growth with an average annual growth rate of 12%, with bestsellers in the skincare and weight loss products segment.

However, it is expected that the average growth of this market is likely to continue to decline from 2016 to 2017: it will only drop to 8-9% per year. Due to the saturation of products in the main consumer groups, most teenagers and young people (under 30 years old) purchase beauty supplements for clear skin or white skin. This is mainly due to the fact that the media or current trends focus on promoting the image of young people who are in good shape or have white skin which is seen to represent a healthy person. In addition, the behavior of spending on food supplements of young consumer group at present has reach their limit which is around 1,000 Baht per month. This is because their income is not very high and benefit of good health does not gain any interest in nutritional supplements. However, the number of consumers in this group is likely to continue to decline. In 2011, the proportion was 40% of the Thai population structure, but in 2020, it will stay at 35%. Therefore, the growth opportunity of the supplement market in the future may be limited by the declining demand (Penetrating the beauty supplement market and future challenges, 2016: online).

From the above reasons, there is a need to study the marketing mix that affected the purchasing behavior of health food supplements of consumers. And Manorum District in Chainat Province was selected because it is a province with a large population and a large economy. The results of the study would be useful for entrepreneurs and those who are interested in doing this type of business. They can use the result as a guideline for decision making, planning and formulating marketing strategies, while various organizations can get involved in setting guidelines. For health, it can be disseminated to educate consumers on the proper use of dietary supplements.

## 2. Research Objectives

1. To study the purchasing behavior of health food supplements of consumers in Manorum District in Chainat Province
2. To study the marketing mix that affect consumers' purchasing behavior of dietary supplements in Manorum District in Chainat province
3. To compare the marketing mix that affects the purchasing behavior of health food supplements of consumers in Manorum District in Chainat province classified by demographics.

## 3. Research Method

### Research Model

Consumer decision-making behavior of dietary supplements in Manorum District in Chainat province used quantitative research method only.

### Population and Sample

**Population:**The population of this study is consumers who consumed some food supplement products in Manorum District (i.e. Kha Samphao Subdistrict, Wat Khok Subdistrict, Siladan Subdistrict, Tha Chaan Subdistrict, Hang Nam Sakhon Subdistrict, Rai Phatthana Subdistrict and U-Tapao Subdistrict) in Chainat province.

**Sample:** The sample used in this study was people who consumed or used to consume dietary supplements in Manorum District in Chai Nam Province including both males and females. The sample of 400 respondents were randomly selected from an unknown population with 95% confidence level, classified by Taro Yamane's Tolerance Level (Yamane, 1973).

## 4. Research Instrument

A structured survey questionnaire was used to collect data. The questionnaire is divided into 3 parts as follows:  
 Part 1 Personal Data of respondents by demographic characteristics;  
 Part 2 Marketing Mix Affecting Consumer Buying Behavior of Dietary Supplements in Manorum District in Chainat province; and  
 Part 3 Consumer Behavior of Dietary Supplements in Manorum District in Chainat Province.

## 5. Research Results

1. The demographic characteristics of the respondents were gender, age, marital status, educational level, occupation and average monthly income. By using the frequency and percentage techniques, it was found that most of the respondents: were female (134 respondents, representing 67.25%); aged between 20-30 years (133 respondents, representing 66.75%); were single (157 respondents, representing 78.75%); were students/students (92 respondents, representing 46%); had an average monthly income of less than 10,000 Baht (79 respondents, representing 39.25%); had a bachelor's degree (103 respondents, accounting for 51.50%).

2. Consumer decision-making behavior of health food supplements in Manorom District in Chainat province can be described as follows:

Most consumers bought dietary supplements once a month (82 respondents accounting for 40.8%) and bought the products every 3 months (73 respondents accounting for 36.8%). For quantity, the consumers purchased: 2 bottles/boxes/time (72 people, equivalent to 36%); 1 bottle/box/time (70 respondents, equivalent to 34.80%). The purchase cost was: 500 – 1,000 Baht (85 people, accounting for 42.80%); and less than 500 Baht (73 respondents or 36.30%). As for people whose opinions influenced the consumer purchase decisions, it was the parents, relatives, siblings and friends to help them made the decision to buy the dietary supplements (78 respondents, representing 38.80%) and then salespeople (24 respondents accounting for 20.80%). As for places to buy, most respondents purchased the supplements from leading department stores, shopping centers and supermarkets amounting to 87 people representing 43.50%. About reasons for choosing to buy dietary supplements, most of the respondents selected benefits of prevention and treatment of various diseases amounting to 84 people representing 42%, followed by choosing to consume dietary supplements based on the benefit of losing weight amounting to 75 people or 37.50%.

3. Comparing marketing mix (including product, price, place or distribution channel and promotion) classified by demographics, it was found that differences in gender, age, marital status, average income per month and education level influence consumers' decision-making behavior in purchasing dietary supplements in Manorom District in Chainat province. The independent sample (t – test) and One – Way ANOVA (F – test) test statistics were used. If each hypothesis differed at the .05 level, the pairs were tested using Scheffe statistics which can be described as follows.

The marketing mix affected consumers' purchasing behavior of dietary supplements in Manorom District in Chainat Province in all aspects were at high level ( $\bar{X} = 4.20$ , SD = 0.50). Product was selected at the highest level ( $\bar{X} = 4.35$ , SD = 0.57) followed by price ( $\bar{X} = 4.18$ , SD = 0.60), promotion ( $\bar{X} = 4.17$ , SD = 0.64), distribution channels (place) ( $\bar{X} = 4.13$ , SD = 0.64). When considering the marketing mix by each aspect, it can be described as follows.

In terms of products in overall, it was selected at the highest level ( $\bar{X} = 4.35$ , SD = 0.57). All items are arranged in the following order at the highest level: "Dietary supplement products that you choose to consume are certified by the Food and Drug Administration" ( $\bar{X} = 4.40$ , SD = 0.72); "Dietary supplements that you choose to consume clearly state the expiration date" ( $\bar{X} = 4.38$ , SD = 0.75); "Consumption clearly stated the consumption method and precautions" ( $\bar{X} = 4.37$ , SD = 0.75), "The dietary supplement that you choose to consume looks clean and safe" ( $\bar{X} = 4.35$ , SD = 0.67); "Produced clearly" ( $\bar{X} = 4.33$ , SD = 0.70); "Dietary supplements come in many formulations and many sizes which meet the requirements" ( $\bar{X} = 4.25$ , SD = 0.71) respectively.

In terms of price in overall, the level was at a high level ( $\bar{X} = 4.18$ , SD = 0.60). At high level, all items are arranged in the following order: "Dietary supplements that you choose to consume are reasonably priced and

worth the money spent" ( $\bar{x} = 4.24$ , SD = 0.70); "Dietary supplements that you choose to consume are available at various price levels" ( $\bar{x} = 4.17$ , SD = 0.75); "Supplements you choose to consume is suitable for the quantity" ( $\bar{x} = 4.27$ , SD = 0.75). The dietary supplement you choose to consume is appropriate for the quality ( $\bar{x} = 4.14$ , SD = 0.72) respectively.

In terms of distribution channel (Place) in overall, it was selected at high level ( $\bar{x} = 4.13$ , SD = 0.64). At high level, all items are arranged in the following order: "Dietary supplements that you choose to consume are available at leading department stores, shopping centers or supermarkets" ( $\bar{x} = 4.20$ , SD = 0.74); "Dietary supplements that you choose to consume can be purchased online via Facebook, Line and www" ( $\bar{x} = 4.18$ , SD = 0.83); "Dietary supplements that you choose to consume are available at Boots/Watson stores" ( $\bar{x} = 4.14$ , SD = 0.83); "Dietary supplements that you choose to consume are available at general pharmacies" ( $\bar{x} = 4.13$ , SD = 0.74); and "Dietary supplements that you choose to consume are available at convenience stores and can be purchased 24 hours a day" ( $\bar{x} = 3.98$ , SD = 0.92) respectively.

In terms of distribution channels (Place) in overall, it was selected at high level ( $\bar{x} = 4.13$ , SD = 0.64). At high level, all items are arranged in the following order: "Dietary supplements that you choose to consume are available at leading department stores, shopping centers or supermarkets" ( $\bar{x} = 4.20$ , SD = 0.74); "Dietary supplements that you choose to consume can be purchased online via Facebook, Line and www" ( $\bar{x} = 4.18$ , SD = 0.83); "Dietary supplements that you choose to consume are available at Boots / Watson stores" ( $\bar{x} = 4.14$ , SD = 0.83); "Dietary supplements that you choose to consume are available at general pharmacies" ( $\bar{x} = 4.13$ , SD = 0.74); "Dietary supplements that you choose to consume are available in convenience stores and can be purchased 24 hours a day" ( $\bar{x} = 3.98$ , SD = 0.92) respectively.

In terms of marketing promotion (Promotion) in overall, it was selected at high level ( $\bar{x} = 4.17$ , SD = 0.64); "Dietary supplements that you choose to consume are promoting a good corporate image to give consumers confidence" at the highest level ( $\bar{x} = 4.25$ , SD = 0.75); followed "Dietary supplements that you choose to consume are packaged at a special price" ( $\bar{x} = 4.1$ , SD = 0.80); "Dietary supplements that you choose to consume are advertised through television, radio, the Internet and various media" ( $\bar{x} = 4.16$ , SD = 0.78); and "Dietary supplements that you choose to consume are discounted" ( $\bar{x} = 4.08$ , SD = 0.81) respectively.

Consumers of different genders had different behaviors in purchasing dietary supplements. The test was statistically performed with independent sample (t – test). Marketing mix influenced the consumption behavior of dietary supplements (Product) of males more than females with statistical significance at the 0.05 level.

Consumers of different ages had different behaviors in purchasing dietary supplements. From the statistical test using One - Way ANOVA (F - test), it was found that marketing mix affected dietary supplement consumption behavior of consumers in Manorom District in Chainat province significantly at the 0.05 level. Therefore, the test was performed individually by using Scheffe statistics as follows:

In terms of products, it was found that consumers aged 31-40 years affected dietary supplement product consumption behavior significantly higher than consumers aged 20-30 years which is statistically significant at

the 0.05 level. As for the distribution channel (Place), it was found that the distribution channel significantly affected the dietary supplement consumption behavior of consumers aged 51 years and over and significantly lower than those under 20 years old at statistical significance level at 0.05.

In terms of promotion, it was found that consumers under the age of 20 pay more attention to the marketing mix in terms of marketing promotion which is believed to affect dietary supplement consumption behavior than consumers aged 51 years and over, statistically significant at the 0.05 level. Consumers with different marital status had different behaviors in purchasing dietary supplements. From the statistical test using One-Way ANOVA (F-test), it was found that the marketing mix affected dietary supplement consumption behavior of consumers in Manorum District in Chainat province classified by marital status were not significantly different. Consumers with different educational levels had different behaviors in purchasing dietary supplements. From the statistical test using One - Way ANOVA (F - test), it was found that marketing mix affecting dietary supplement consumption behavior of consumers in Manorum District in Chainat province, classified by educational level, did not differ significantly at the 0.05 level.

Consumers with different occupations had different behaviors in purchasing dietary supplements. From the One-Way ANOVA (F-test) test with marketing mix affecting food product consumption behavior of consumers in Manorum district in Chai Nam Province classified by occupation, price and marketing promotion differed statistically at 0.05 level. Therefore, the test was performed in pairs using Scheffe statistics as follows

In terms of price, it was found that lecturers or teachers focused on product affecting dietary supplement consumption behavior higher than consumers who were self-employed with statistical significance level 0.05.

In terms of marketing promotion (Promotion), there were no statistically significant differences among consumers with different average monthly incomes and had different behaviors in purchasing dietary supplements. From the statistical test using One - Way ANOVA ( F - test ), it was found that there was no difference in marketing mix that affected dietary supplement consumption behavior of consumers classified by average monthly income.

## **6. Conclusion and Discussion**

To provide research on consumer decision-making behavior of dietary supplements in Manorum District in Chainat province according to the research objectives and assumptions, the research results were discussed as follows:

1. Personal factors. It can be seen that the majority of respondents were female (134 people, representing 67.30%); aged between 20-30 years (133 people, representing 66.80%) and 31-40 years (26 people, representing 13%). Most consumers would buy dietary supplements once a month (82 people accounting for 40.8%). The cost of purchasing dietary supplements was 500 - 1,000 baht (65 people accounting for 42.80%) and less than 500 Baht (73 people, representing 36.30%). Reasons for choosing dietary supplements were based on the benefits of prevention and treatment of various diseases (84 people, representing 42%), which is consistent with the research of Roddamrong (2016) who studied the decision to buy collagen beauty supplements via Facebook. It was discovered that most of the sample groups were female, aged between 30-40 years old, and had behavior in purchasing collagen beauty supplements via the Internet.

2. As for decision behaviors of health food supplements of consumers in Manorum District in Chainat Province, most consumers would buy dietary supplements once a month. The purchase quantity is usually 2 bottles/box/time with an expense of 500-1,000 Baht. Influencers would use the opinions of their parents, relatives or friends to help them decide to buy dietary supplements. Most of the places to buy are usually in leading department stores, shopping centers, or supercenters. The reason for choosing to consume dietary supplements is determined by their preventive and curative benefits.

3. The analysis of relationship between demographic characteristics and purchasing behavior of health food supplements of consumers in Manorum District in Chainat province showed that the relationship between consumer behaviors affecting consumers' decision to purchase dietary supplements in Manorum District in Chainat Province was not statistically dependent on gender. The relationship between consumer behavior that influenced the decision to purchase supplementary products of consumers in Manorum District in Chainat province. Most of them bought dietary supplements for 2 bottles/box/ time. The cost of buying dietary

supplements was about 500 - 1,000 Baht because they used the opinions of their parents and relatives to help them decide to buy dietary supplements. And dietary supplements were mainly purchased at leading department stores.

The relationship between consumer behavior affecting consumers' decision to purchase dietary supplements in Manorum District in Chainat province showed that all items were not statistically dependent on marital status.

Relationship between consumer behavior affecting consumers' decision to purchase dietary supplements in Manorum District in Chainat province. In relation to occupational status, most of them bought dietary supplements once a month using the opinions of their parents and relatives when deciding to buy dietary supplements.

Relationship between consumer behavior affecting consumers' decision to purchase dietary supplements in Manorum District in Chainat Province and income showed that most of them bought dietary supplements for 2 bottles/box/time. The cost of buying dietary supplements was 500 - 1,000 Baht. They made a purchase decision based on the opinions of parents and relatives. They bought at leading department stores. Most of them choose to buy dietary supplements because they were concerned with the treatment of diseases and weight loss.

Analysis of relationship between consumer behavior affecting consumers' decision to purchase dietary supplements in Manorum District in Chainat province showed that all items were not statistically significant depending on education.

4. Analysis of marketing mix that affect consumers' decision-making behavior in purchasing health food supplements in Manorum District in Chainat province classified by demographic characteristics found that on the product side, it can be seen that the majority of respondents gave the overall importance of the product at the highest level. When considering each item, it was found that "The dietary supplement you choose to consume is certified by the Food and Drug Administration", "Food supplements that you choose to consume clearly indicate holidays", "The dietary supplement you choose to consume clearly tells you how to consume it and what precautions you should take", "Food supplements that you choose to consume are clean and safe", and "Food supplements that you choose to consume clearly state the ingredients in the production". This is consistent with the research of Wongprasit (2012) who studied dietary supplements (collagen) behavior. From the research, it was found that consumers paid attention to the product in terms of production date/month/year, expiration date, production ingredients that were clearly stated. This is to increase trust and make consumers feel safe from buying products for consumption.

In terms of price, it can be seen that most respondents focused on price in overall at high level. When considering each item of the questionnaire, it was found that "The nutritional supplements you choose to consume are priced appropriately for the quality" were selected at high level. This is in line with the pricing theory of Sereerat et al. (1998) who said that if the value was higher than the price, he would decide to buy as follows: the perceived value in the eyes of the customer must consider that the customer's acceptance of the product value is high. This is in line with the research of Wongprasit (2012) who studied the behavior of dietary supplements (collagen), it was found that consumers paid attention to the price of the product that was appropriate for the quality received.

In terms of distribution channels (Place), it can be seen that most of the respondents focus on the overall distribution channel at high level. When considering each item of the questionnaire, it was found that "Dietary supplements that you choose to consume are available at leading department stores, shopping centers or super center", "Dietary supplements that you choose to consume can be purchased online via Facebook, Line and www", and "Dietary supplements that you choose to consume are available in convenience stores that can be purchased 24 hours a day" were selected at high level. This is in line with the research of Wongprasit (2012) who conducted a study on dietary supplement consumption behavior (collagen). According to the research, it was found that consumers focused on asking for general availability, making it easy and convenient for consumers to access products.

As for promotion, it can be seen that most of the respondents give a high level of overall importance to marketing promotion (Promotion). When considering each item of the questionnaire, it was found that "Dietary supplements that you choose to consume are promoting a good corporate image to give consumers



confidence”, “Dietary supplements that you choose to consume have a set of products at a special price”, “The dietary supplements you choose to consume are advertised through TV, radio, the Internet and the media”, and “The dietary supplements you choose to consume are discounted” were selected at high level. This is in line with the pricing theory of Seireerat (2003) which states who is involved in buying and when consumers buy. The most popular strategy is marketing promotion strategies. For example, When to promote marketing are relevant to the purchase opportunity; Advertising and public relations are also done in accordance with the purpose of making a purchase decision.

## 7. Recommendation

### Research Suggestion

- 1. Product.** The results of the research show that most consumers are interested in the product the most. Therefore, the supplier should add more value and trust to the product, such as advertising projecting the strength of the product that is different from the general competitors. Clarification of product safety should be certified by any organization or after using the product for a period of time, one can see results without side effects, etc.
- 2. Price.** The price of the product also affects the purchasing decision of consumers. Vendors should allocate quantities that match the price and quality, for example, the trial kits should be made affordable. For consumers with low purchasing power, they can try the product and buy it gradually.
- 3. Distribution Channels.** From the past, it may be selling through dealers or social media such as Facebook and Line including addition of payment channels or purchase channels.
- 4. Marketing promotion (Promotion).** There should be a continuous development of marketing strategies such as offering various privileges in addition to the price gradient.

## 8. Suggestion for Future Research

1. There should be a study how dietary supplements are selected by a specific group such as dietary supplements for health maintenance, dietary supplements for the prevention and treatment of various diseases, dietary supplements that can help lose weight, products with beauty enhancement benefits such as skin care and anti-aging.
2. There should be a study of a specific target group such as dietary supplements, health maintenance groups and dietary supplements for the prevention and treatment of various diseases for elderly and dietary supplement with beautifying properties for teenagers.

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**How to cite this article:** *Mana Wivatanasak, Wang Ji Run, Consumer Decision-Making Behavior of Dietary Supplements in Manorom District, Chainat Province, Asian. Jour. Social. Scie. Mgmt. Tech.2022; 4(2): 225-232.*