

Marketing Mix Affecting Consumers in Purchasing at Refill Shops in Mueang Chiang Mai District

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(Received: 28 June 2022, Revised: 20 September 2022, Accepted: 17 October 2022)

<https://doi.org/10.57260/remrj.2022.259873>

Abstract

Refill shop refers to a shop where customers bring their own containers to fill and purchase products with a purpose of preserving the environment by reducing waste. The purpose of this research was to study the marketing mix that affects consumers in shopping at refill shops in Mueang Chiang Mai District. This research is quantitative research. A questionnaire was used to collect data. The samples included 158 customers who had shopped at any refill shop located in Mueang Chiang Mai District. The data collection took place in the 5 selected refill shops in Chiang Mai. The researchers applied descriptive statistics. The study revealed that most respondents were female, single, age range 20-30 years old, graduated with bachelor's degree, worked as company employees, average monthly income of 10,000 - 20,000 baht, shopped at a refill shop 1-2 times per month. Regarding the marketing mix factors, the respondents ranked all marketing mix factors at high to the highest levels. The ranked factors included product (4.21), price (3.98), place (3.94), and promotion (3.53), respectively.

Keywords: Marketing mix, Mueang Chiang Mai District, Refill shop

Introduction

The growing of plastic waste has been a crucial problem in Thailand. The Ministry of Natural Resources and Environment presented a draft of plastic waste management plan to initiate cooperation and public relations among related organizations. The Ministry has proposed a comprehensive waste management approach including “reduce, reuse, and recycle” practices (Pollution Control Department, Ministry of Natural Resources and Environment, 2018). In 2020, Chiang Mai possessed the second highest amount of waste in the country, and most of it was non-biodegradable. Unfortunately, waste sorting plants located in Chiang Mai were still insufficient to cope with the rising waste volume in the upcoming future (Naewna, 2020). Plastic waste is a type of waste that is particularly difficult to decompose. If not being disposed of properly, plastic waste will lead to toxic particles in the atmosphere. In sum, plastic particles would affect people's health in the long run (Prince of Songkla University, 2018). Moreover, since 2020, the outbreak of coronavirus disease 2019 has stimulated more people to order food online, resulting in a 15% increase in plastic waste from food deliveries, or 6,300 tons per day (Na Ranong, 2020).

Due to such issue, business sectors paid significantly more attention to environmental protection. Many of them run their businesses while applying zero-waste life concept into practice. The zero-waste activities were, for instance, using cloth bags instead of plastic bag; using packaging made from natural materials; promoting packaging that can be composted naturally within 1-2 years, to name a few. Besides those common practices, some businesses came up with the idea of a shop where customers must bring their own containers or packaging to refill the products themselves. This creative business idea is called a refill shop business. This kind of shops usually sell products for household consumption such as rice, as well as consumer products such as shampoo, soap, and dishwashing liquid. An advantage of buying from a refill store was that customers could make a purchase in the amount they want without having to pay for more than necessary (Kanchanakit, 2018).

Refill shop business is popular in European countries. The first shop that brought this type of business to open in Thailand was Refill Station. The shop operators saw that there were several ways to reduce waste. They eventually chose a refill model to start with because it was the most viable concept. Customers can bring their own containers to refill the products themselves. In the beginning, this shop was only known to a small group of people who were interested. Later, the shop owners began to hold talks and meet up events to provide opportunities for people who are interested in preserving the environment to meet and exchange their thoughts and experiences. They also discussed ideas of small details to run refill shop, such as how to prepare containers to serving the customers and how to design and run the businesses. Since then, other entrepreneurs began to gradually open up this type of business (TCDC, 2019). The goal of refill shop business was to provide products and services to meet

demand of customers interested in environmental protection. At present, there is an increasing number of refill shops in Bangkok and other provinces in Thailand. In Chiang Mai, there has been a growing trend of entrepreneurs starting this type of business. The shops in Chiang Mai are small and aim for environmental conscious customers (Methanupap, 2019).

Hence, the researcher was interested in studying the marketing mix that affects consumers in shopping at refill stores in Mueang Chiang Mai District. The results of the study would benefit entrepreneurs in creating a marketing strategy for their business in the form of a refill shop to meet consumer needs and achieve environmental goals.

Objective

To study marketing mix affecting consumers in purchasing at refill shops in Mueang Chiang Mai District.

Literature Reviews

Marketing Mix (4Ps)

This research applied Marketing Mix Concept or 4Ps to answer the research objective. The marketing mix refers to the marketing tools a business uses to achieve its marketing objectives. Marketing Mix consists of the following components: 1) Product which refers to objects that is offered for sale to meet the needs of customers. Products could either be tangible or intangible. Product features consist of benefits, quality, shape, packaging, and brand. 2) Price refers to value of the product in monetary terms. In general, consumers tend to compare between the value and the price of the product. If the value is higher, the price will influence the consumer's purchasing decision. 3) Place or distribution channel means a channel to move goods and services from the organization to the customer. It also means a channel that will allow customers to access sales. 4) Promotion is the communication between buyers and sellers to exchange information about products and customers' needs. Its purpose is to create a positive attitude and encourage purchase. Some of the popular promotion tools used are advertising, personal sales, and public relations (Sereerat, 2017).

Waste Management Theory

Waste Management Theory is based on the consideration that waste management is to prevent waste causing harm to human health and the environment. In addition, when mention about waste management, the practice of resource conservation comes along. One way to minimize waste was to optimize resources usage and ensures that resources are effectively circulated within the ecosystems (Pongrácz, Phillips & Keiski, 2004).

Refill Business

The Pollution Control Department of Thailand has prepared an environmental quality management plan by 1) Promoting the reduction of solid waste from the source 2) Refraining or reducing the use of Styrofoam boxes, plastic bags, and hard-to-decompose materials and 3) Develop bioplastics including other materials that are environmentally friendly to be able to

be recycled as much as possible and 4) Set waste management goals for the entire production process with 3R goals (Reduce, Reuse, Recycle) (Pollution Control Department, Ministry of Natural Resources and Environment, 2018). From this idea, there became a group of people who are interested in protecting the environment along with doing business. One of them is the refill business to reduce the amount of packaging waste in the form of consumer goods store management. The main concept was that customers must bring their own containers to refill with the products at the shop where customers can limit the quantity they would like to buy. The refill shop staff will charge according to the weight of the product in the container (Bangkok bank SME, 2020: online). It was notable that most of the refill shops sell products made from natural extracts that are safe from chemicals (Methanupap, 2019).

Methodology

1. Research framework

1.1 Content

This study is a quantitative study. It focuses on the marketing mix that affects consumers in their purchases at refill stores in Mueang Chiang Mai District. The marketing mix in this study include product, price, place or distribution channel, and promotion factors.

1.2 Population and sample

The population in this study included people who had shopped at any of the refill shop in Mueang Chiang Mai District from November 2020 to November 2021. It was found that there were 5 refill shops in Chiang Mai. The authors then interviewed each of the 5 entrepreneurs. It was found that there were approximately 250 customers bought products from each store per month. The researcher applied Taro Yamane formula to identify the proper size of sample group at 95% confidence level using 5% randomization error. From the formula, the result showed that 158 samples were suitable for this study (Silpjaru, 2007). To collect data, the researcher used a screening question by asking “Have you bought anything at a refill shop during November 2020 to November 2021?” If answered “No,” the researcher would end the questionnaire and not counted as a sample. However, if answered “Yes,” the researcher would continue to collect data.

2. Research methodology

2.1 Research tool

The research instrument used in the study was a questionnaire which was divided into 4 parts as follows:

Part 1 General information about the respondents. This part is a multiple choice. The questions consist of gender, age, marital status, highest level of education, occupation, and average monthly income.

Part 2 Shopping behavior at the refill shop. This part is a multiple-choice question. The questions consist of frequency of purchases at the refill shop, reason for the purchase, reason for buying from refill shop, and satisfaction in shopping from the refill shop.

Part 3 The marketing mix factors that affects consumers in their purchases at refill shops in Mueang Chiang Mai District. This part applied rating scale questions.

Part 4 Information, opinions, and suggestions for refill shops in Mueang Chiang Mai District. This part is an open-ended question.

2.2 Questionnaire development

The researcher developed questionnaire in 4 steps as follows:

Step 1: Study and research related documents and research

Step 2: Take the questionnaire to the 3 experts to check for content validity and to find the Index of Item Objective Congruence (IOC). Based on the criteria for determining IOC, to accept the content validity, the index must be greater than 0.5 (Rovinelli & Hambleton, 1996). From the analysis IOC in this study, it was found that all IOC values of the entire questionnaire were greater than 0.5 and the overall compliance index was 0.97. This indicated the consistency between the questions and the objectives of the questionnaire, and all questions were eligible for use.

Step 3: The researcher measured confidence or internal concordance with Cronbach's Alpha Coefficient, using the expert-recommended questionnaire tested on 30 informants by the selection criteria questions with an α value of 0.70 or higher were considered confident (Tirakanant, 2012). The analysis obtained Cronbach's alpha coefficient of product factor 0.73, price factor, 0.86, place or distribution channel factor 0.76, promotion factor 0.83, and overall, 0.90. Therefore, all questions are considered confident and can be used.

Step 4: Create an online questionnaire and collect data.

2.3 Data analysis

Data collected from the questionnaire were analyzed by using descriptive statistics consisting of frequency, percentage and mean. In terms of marketing mix that affects consumers in purchasing at refill stores in Mueang Chiang Mai District, the criteria were divided into 5 levels according to the Rating Scales Method. The scores were interpreted for each level as follows: 4.21-5.00 means factors having the greatest effect; 3.41-4.20 means factors having a high level of effect; 2.61-3.40 means factors having moderate effects; 1.81-2.60 means to factors that affect at a low level and 1.00-1.80 mean factors that affect at a lowest level. In the Problem Solving and Suggestions section, synonymous answers were grouped together, and the frequency of responses was indicated.

Results

From the results of the study, it was found that most of the respondents were female (72.15%), aged 20-30 years (62.03%), single (62.03%), bachelor's degree (75.95%), working as employees of private companies (36.08%), and average monthly income between 10,000-20,000 baht (53.16%). In terms of shopping behavior at the refill shop, it was found that the majority of the respondents shopped at the refill shop 1-2 times a month (61.39%), most of them bought shower gel (79.11%), and they bought the product to use in daily life (82.28%). They shopped at the refill stores because they wanted to be part of contributing to the environment (85.44%). They often decided where to shop by themselves (72.15%) and searched for the shop information via internet (72.15%). Most of them were satisfied with shopping at the refill shops (72.15 percent).

Regarding the marketing mix affecting consumers to purchase at refill shops, the respondents ranked all marketing mix factors at the highest and high levels. The ranked factors included product (mean 4.21), price (mean 3.98), place or distribution channel (mean 3.94), and promotion (mean 3.53), respectively. The results are shown in table 1.

Table 1 Mean and interpretation of marketing mix affecting consumers in purchasing at refill shops in Mueang Chiang Mai District

Order	Marketing Mix	Mean	Interpretation
1	Product	4.21	Highest
2	Price	3.98	High
3	Place or distribution channel	3.94	High
4	Promotion	3.53	High

The top five sub-factors at the highest level included: the price was calculated based on the quantity purchased (Mean 4.53), the customers could limit the amount of product to be purchased (Mean 4.49); the unit price was clearly labeled (Mean 4.45); the products were made from natural ingredients (4.44); and the shop's product containers were clean and hygienic (Mean 4.42), respectively. All sub-factor results are shown in table 2.

Table 2 Mean and interpretation of sub-factors of marketing mix affecting the use of refill shops in Mueang Chiang Mai District

Order	Sub-factors of Marketing Mix	Marketing Mix	Mean	Interpretation
1	The price was calculated based on the quantity purchased.	Price	4.53	Highest
2	Customers could determine the amount of product to be purchased.	Product	4.49	Highest
3	The unit price was clearly labeled.	Price	4.45	Highest
4	The products were made from natural ingredients.	Product	4.44	Highest
5	The shop's product containers were clean and hygienic.	Product	4.42	Highest
6	The products were of high quality.	Product	4.41	Highest
7	Convenience of adding products to the packaging	Product	4.41	Highest
8	The containers were clean.	Product	4.34	Highest
9	The prices of the product were appropriate.	Price	4.27	Highest
10	The process of calculating the weight of the product was easy to understand.	Place/Channel	4.25	Highest
11	The manufacturing and expiration dates as well as ingredients were clearly shown on the product label.	Product	4.22	Highest
12	The products in the shop were well organized.	Place/Distribution channel	4.18	High
13	The sale persons were willing to provide information about the products.	Promotion	4.18	High
14	There was a wide selection of products.	Product	4.00	High

Order	Sub-factors of Marketing Mix	Marketing Mix	Mean	Interpretation
15	The shop provided “refill concept” such as promoting the reduction of plastic waste from packaging.	Promotion	3.99	High
16	Bringing packaging to fill products helps customers to save costs.	Price	3.78	High
17	The containers were reusable.	Product	3.73	High
18	There are advertisements of the shop and its refill concept in various media.	Promotion	3.68	High
19	The shop used recycled materials.	Product	3.60	High
20	There were “environmentally friendly” or “green product” symbols on the products or in the shop.	Place/Distribution channel	3.58	High
21	The shop provided promotions such as giving discounts or price reduction.	Promotion	2.85	Moderate

The informants provided opinions and suggestions to the refill shops in Mueang Chiang Mai District, which could be summarized as follows: 1) the shops should advertise itself to the wider public since not many people know about refill shop and its concept 2) the shops should provide wider range of products 3) as the products in the shops were priced higher than general products and causing people to hesitated to buy, therefore, the shops should insist on the concept of refill shops and explain about the benefits of such concept which made the product worth the price 4) the unit price of some items that were not clearly labeled could confuse the customers, and 5) the shop should provide accurate and appropriate weighing and measuring tools to develop trust from the customers.

Discussions

From the analysis of the study results, the important findings were discussed as follows. Regarding the general information of the sample group, it was found that the majority of respondents who used to buy products at a refill shop in Mueang Chiang Mai District were female, aged 20-30 years, single status, bachelor's degree, worked at private company, earned average monthly income of 10,000 – 20,000 baht, which were consistent with the results of a study by Infang (2014) whom studied the behavior of working-age consumers in Mueang Chiang Mai District towards purchasing of environmentally friendly products in the household cleaning products group. Infang (2014) found that the respondents in her study held a bachelor's degree and worked in companies. In addition, the result also aligned the results of a study by Rammasoot (2015) who studied consumer behavior in Mueang Chiang Mai District in purchasing environmentally friendly packaging and found that the respondents were under 30 years of age, single, had a bachelor's degree, earned an average monthly income of 10,000 – 20,000 baht. Furthermore, the results also correlated with the results of the study Poomwichuej (2016) who studied about factors affecting the decision to use natural health products in Wiang Sub-District Municipality, Mueang District, Chiang Rai Province. He found that most of the respondents were female, single, had a bachelor's degree, earned monthly income not more than 15,000 baht. It could be observed that the group of customers of shops that focusing on environmental protection and natural products tended to possess similar demographic characteristics.

In terms of shopping behavior at the refill shop, the results of this study indicated that the most popular item that the respondents purchased at the refill shop was shower gel. This finding was consistent with the study on key success factors for refills in beauty industry applications, by Valdez and Maria (2019) who found that respondents tended to buy refillable consumer products such as detergents, shower gels, soaps, body care, perfumes, and shampoo. The main reason to buy was to take part in environmental conservation. This finding was consistent with a study by Rammasoot (2015) who studied on the behavior of consumers in Mueang Chiang Mai District in purchasing environmentally friendly packaging and found that consumers purchased environmentally friendly packaging because they would like to be a part of environmental conservation as well.

In addition, the results showed that the respondents usually made their own decision to purchase products with environmentally friendly packaging. This finding was consistent with the results of Poomwichuej (2016) which revealed that people usually made decision to buy natural health product on their own. In terms of the frequency of shopping at the refill shop, this study indicated that people usually buy things at the refill shop around 1-2 times a month. This result contradicted to the results of a study by Rammasoot (2015) who found in his study that people usually purchase at the alike-refill shop of 1-5 times per year, which was less

frequent than the result of this study. The source of information that led most respondents in this study to buy things at the refill shop was internet. This result was consistent with a study by Ruadriew (2016) who studied on marketing mix affecting female consumers in Mueang Chiang Mai District in purchasing environmentally friendly cosmetic products and found that the respondents bought the product because they followed online-reviews from the previous customers.

Regarding the marketing mix factors, the respondents in this study ranked all marketing mix factors from the high to the highest level. The ranked factors included product, price, place, and promotion, respectively. It was noted that the results differ from the results of the Valdez and Maria (2019) study on the key success factors for refill shops in the beauty industry. The result showed that the respondents prioritized the marketing mix in descending order: price (highest effect), followed by distribution channels, marketing promotion, and products. The results also differed the study by Rammasoot (2015), who studied the consumer behavior in Mueang Chiang Mai District in purchasing environmentally friendly packaging and found that the consumers paid attention to the marketing mix in descending order: price, product, distribution, and marketing promotion. The respondents in Rammasoot's study rated high priority to all four factors.

Furthermore, the sub-factors that were important to using the refill shop include: the price was calculated based on the quantity purchased; the customers could determine the amount of product to be purchased; the unit price was clearly labeled; the products were made from natural ingredients; and the shop's product containers were clean and hygienic, respectively. These findings differed from Rammasoot (2015) study, who found that the top three most important sub-factors were price that was appropriate for the benefit that would benefit both for the environment and the consumers. Products were safe for health and convenient to purchase. Although the results of the study differed in the prioritizing order, it shall be noted that what consumers paid attention to were similar in terms of quality and safety of products, the ease of access to the distribution sources, and to set the appropriate price.

Conclusion and suggestions

From the results of the study, it could be concluded that most of the informants who shop at refill shops were women, age at the start of work, no family, had a bachelor's degree, worked at private companies, and earned an average monthly income between 10,000-20,000 baht. They usually purchased products at the refill shop 1-2 times a month. Most of them bought products for daily use. The main reason they purchased at the refill shop was because they would like to be a part of contributing to environmental conservation. They often made their own purchasing decisions. The informants received information about the refill shop mainly from the Internet. Most of the informants were satisfied with buying from the refill shop. They prioritized the importance of the marketing mix from highest to lowest in this order:

products, prices, distribution, and marketing promotions. The informants also provided the following suggestions:

1. Suggestions for operators of refill shops in Mueang Chiang Mai District and interested entrepreneurs

1.1 From the results of the study, it was found that consumers pay attention to participating in environmental conservation. Therefore, the shops should focus on making consumers understand the concept of the store on environmental protection and waste reduction. In addition, since the consumer group was a new generation who cares about the environment and knows the shop from the internet, therefore, the shops should do a wide public relation. The public relations could be contents through various social media such as Facebook, Instagram, YouTube, to name a few.

1.2 The shops should focus on the products that consumers prefer. Most of the consumers bought shower gel products, followed by shampoo, and paid great importance to quality, safety, and reasonable prices. Therefore, the shops should pay attention to choosing good quality, safe, natural ingredients. They may also consider adding product variations, such as scents, to be more diverse.

1.3 Because the refill shop has a distinctive point that consumers could determine the amount of product to buy according to their need. In addition, many of the customers brought their own containers to fill products from the shop. Hence, the refill shops should always put in the cleanliness and hygiene of the containers used for packing and transferring products to a good standard.

1.4 The results of the study revealed that consumers pay a lot of attention to the location where they can easily access. Consequently, the shops should choose the easy-access location to reach the new generation of consumers, such as in department stores, or a location near the school of the target customer group to increase the opportunity for customers to buy more.

The researcher would like to suggest that the marketing strategy for the business in the form of refill shop as well as other business alike shall be focused on the benefit of sustainability which includes environment, social, and economics in order to meet the trend of consumer needs and achieve environmental goals.

2.Suggestion for future research

2.1 There should be a study of the success factors in marketing a refill shop business or a business with an idea of environmental protection.

2.2 There should be a study of the factors that cause failure in marketing the refill shop business or the business with the idea of protecting the environment.

New knowledge and the effects on society and communities

This research generated new knowledge about the marketing mix that affects consumers in shopping at refill stores in Mueang Chiang Mai District. The shop owners in Chiang Mai and other provinces can apply the results of this study to develop business marketing strategies. In addition, the growth of the refill shops and the alike businesses such as green hotel and low carbon manufacturing will help the society to realize the importance of stakeholder participation to protect the environment in the long run. In addition, the research result would be a good information for the government to apply in its policy on BCG model.

Acknowledgement

This research publication was funded by the Faculty of Business Administration, Chiang Mai University. The researcher deeply appreciated the generous support.

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