The impact of marketing mix on consumer preference towards supplement product

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ABSTRACT

Nowadays, we can see the entrepreneurs of supplements and cosmetics are also expanding rapidly. Various traditional plants commercialized and adapted to market needs. Supplement product marketing activities in Malaysia showed significant growth over the past few decades. This strong growth has led to questions about the true potential of marketing to further improve the reliability of the product on the consumer preferences of supplements among university students. Therefore, this study aimed to study the relationship between the consumer preferences with the marketing mix (product, price, promotion and distribution) towards supplement products. Research conducted at Universiti Utara Malaysia (UUM) and sample size in this study is 397 samples. The study used SPSS 22.0 to analyse the data. The methodology used in this research is method descriptive and inferential statistical analysis that involves the use of frequencies and percentages for analysing the demographics of respondents, independent t-test samples, test the connection one-way ANOVA, Pearson correlation analysis and multiple regression analysis. Overall findings based on the analysis of the Pearson correlation test found the analysis shows the three hypotheses were supported and all independent variables named product, promotion and place distribution, is significant, while the hypothetical price is not significantly associated with elections with consumer to purchase the supplement products. The next discussion is provided in this study.

Keywords:
Consumer preferences, marketing mix (4Ps), supplement products, Student university

1. Introduction

There are a lot of successes have been achieved by Malaysia and received recognition from the international community, particularly in the economic sector. With the advancement of technology today, Malaysia's economic progress can be further extended to various sectors such as the services sector in Malaysia. Malaysia market's ability to compete with the overseas market in view of the serious need for various initiatives has been undertaken by the government in Malaysia as a country

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not only able to compete at the international level but even produce healthy and productivity citizens towards ensuring accelerated development of the country. A healthy lifestyle is very important in life to face the days ahead. The World Health Organization identifies health as a state of physical, mental and social well-being and freedom from disease. This, definitely confirms that, the three aspects are important in living a healthy and prosperous. Improved health product industry, we can see today it become popular among the public in line with the requirements of the supplement itself in accommodating the requirements necessary in our body. The emergence of various types of products gives users the option to choose a product that meets their tastes and needs. Therefore, taking a supplement that has become a trend to the extent that people affected indirectly because it is said to appear in all kinds of products that supposedly able to cure chronic diseases. Users need to be wise in making the choice to understand the holistic supplement products, namely, whether through its own studies or reading about something related products. Based on the [1] Euromonitor, consumer health in Malaysia experienced slower Gross Domestic Product (GDP) growth of 5% in 2015 compared with a 6% increase in 2014. The slower economic growth resulted in cautioning spending, especially in OTC (Over-the-counter) product. Moreover, when the rising cost occur, this also caused consumers to be more price sensitive when purchasing consumer health products. In Malaysia, the top ranking direct selling consumer health companies such as Amway and Herbalife Product benefited from the consumer high confidence in the quality of their product due to long brand history in the market. Nevertheless, the segmentation by product and analysis of the health supplement market share of around 49% during 2014 and is expected to lead the market by the end of 2019. However, consumers will be still selective when purchasing consumer health products as they are unlikely to spend on OTC drugs when they are not needed. Although, the demand for vitamin and dietary supplement will remain strong as consumer perceive to be important for maintaining good health and lowering the risk of developing chronic illnesses.

Consumers may express their needs and desires and still may act in a totally opposite way, at times, it’s possible that they aren’t even aware of the true motivations behind their buying behaviour, or they could react to factors determining last minute changes to their buying decision. Although the consumer decisions are relatively easy to notice and quantify, the physiological processes behind them are very difficult to consider. Therefore, the features of the consumer’s preferences mark the conducted studies with certain specific features in this sense, which we must take into considerations when elaborating and conducting these studies. In view of observation the essence of this dimension of the consumer behaviour itself. University life is an overflow challenging, especially for students who are far from where they live with their parents and families where different environment for them. Unfamiliar environment affects personality, attitude and behaviour, particularly on their food choices that influence by their nutritional status. The dietary pattern of young adults has been extensively studied and reported in the literature as associated with obesity, frequent snacks, and skipping meals [2]. Furthermore, about their nutritional status, students themselves can make a bad choice on preliminary studies at the university and this may continue throughout the life of the university [2-3]. This has been studied by previous researchers from their observation of the daily routine of students such as busy class schedules, peer pressure, some female students tend to buy fast foods from different food joints around the university while others eat from the university cafeteria as others can afford to cook in their hostels. In these food outlets, same kind of foods is prepared daily, therefore students tend to consume same diet repeatedly and thus denies them a variety of choices [2-3].

Some female students have reported to skip meals in order to achieve and maintain their desired body size. In these circumstances, these routines can give impacts on nutritional status since they feel safe or not for their healthy lifestyle [4]. Therefore, it was necessary to investigate their dietary
patterns, assess their nutritional status and how dietary patterns influence nutritional status. There was prevalence of physical signs of malnutrition, which indicates that the students were unhealthy and could impact negatively on their academic performance [4]. So, for this impact of their living in university, consume product health bring responsibility for food preparation to avoid affect their dietary habits. Busy with everyday tasks to prevent the students to pick up food for a balanced result in consumers taking vitamin or mineral supplements to replace the lack of nutrients in their daily lives. This is because, according to Isa and Masuri [2], most of the students who study in the city to take supplements on factors such as air pollution, work pressure as well as pesticide contamination around. Nowadays, the quality of the food is also not what it used where the chemicals used in food is high in comparison with the past. For example, fast food all the rage, especially youth and children as a cheap and affordable price.

According to the State of Food and Agriculture (SOF A) showed that 12.5 percent or 868 million people in the world face the problem of malnutrition. Even more so when the majority of whom are children and 70 per cent are children in Africa. From SOFA (2013), report proves the child also has the potential for a lack of nutrients and substances as experienced by adults. Strategies to improve household food security in Malaysia's National Nutrition Action Plan (NPANM) as stated by the Minister of Agriculture and Agro-Based Industry, Dato 'Sri Ismail Sabri bin Yaakob shows that the issue of food security and nutrition in the country cannot take lightly. According Yetley [5], supplement the security issues such as bio-availability (bioavailability), bio-equivalence (bioequivalence) and confirmation in vitro and animal studies it is appropriate to reflect the limited human condition. When used in supplements may involve exposure to excessive nutrients or chemicals to normal individual needs. This because, potentially beneficial supplement product or harm to the user interaction. People now believe that lifestyle and poor diet pattern require them to seek the help of nutritional supplement products to meet the needs of the body. It is also a way to maintain health. However, many argue that taking supplements is said to restore and enhance the prevention of illness while getting advice from a qualified doctor. However, according to Ghazali [6] supplements are not always healthy for the body and always have side effects that need to be taken into account. Therefore, nutritional supplements are taken in every important for us to know and is very important for us to ensure that they comply with the standards of supplements Recommended Nutrient Intake (RNI) Malaysia 2005 and received approval from the Ministry of Health (MOH).

2. Literature Review
2.1 Consumer Preferences

Preference is a person’s feeling of pleasure, of disappointment resulting from comparing products perceived performance (or outcome) in relation to his or her expectation [7-9]. Many companies are aiming for high satisfaction because consumers who are just satisfied still find it easy to switch when a better offer comes along. Those who are highly satisfied are much less to switch. High satisfaction or delight creates an emotional bond with the brand, not just a rational preference. The result is high consumer’s loyalty. The key to generating high consumer’s loyalty is delivering high consumer value. Moreover, in delivering profitable value, a company must develop a competitively superior value preferences won’t change easily towards the product. The brand must represent a promise about the total resulting experiences that consumers can expect. Whether the promise is kept depend upon the company ability to manage its value delivery systems includes all the communications and channel experiences the consumer’s will have on the way to obtaining the offering. Moreover, preferences can be triggered by the features related to the material substances of the goods (shape, size, print, taste, colour, consistency, package, and etc).
2.2 Supplements

According to the Dietary Supplement Health and Education (DSHEA) of 1994 defines supplements as products other than tobacco are expected to complete food containing one or more of the food ingredients such as vitamins, minerals, herbs, amino acids, the feed to increase nutritional concentrate, substance metabolite, extract, or combinations of these ingredients. However, according to Devla, et al., [10] each country has a different call to the term of supplement. For example, Health Food (China), Health Food Supplement (Korea), Dietary Supplement (United States), Nutraceutical (Canada). Even though, the average Australian used the term complementary product while the Food Supplements [11] practiced in Indonesia. The term does not distinguish the various internal functions supplement itself generally help users improve the health of the body. In addition, according to the Food and Drug Administration (FDA) stating that the supplements consist of a variety of forms, including tablets, capsules, powders, energy bars and liquid. Ghazali, Mutum and Lee [6] argues pleased to supplement available from pharmacies, health shops, clinics, Chinese medicine shops, supermarkets or from agents selling directly to customers. It is not directly encouraging the purchase and use of supplement products because of its simplicity to be found by users. Moreover, now, up to date technology at their fingertips, where the widespread use of technology allows various products or items purchased on-line.

2.3 The Concept of Marketing Mix

The concept of marketing mix is an activity that can be done by companies to influence the demand for and supply of a product either products or services. Thus, McCarthy has inspired the concept of the marketing mix, known as the "4Ps" of the product, price, promotion and place. The concept is popular among marketers to identify shortcomings and strengths of the factors existing in the marketed product. The objective of the marketing mix is continuing to perform actions that affect consumer purchasing decisions [12] and the role of the market itself is to align supply and demand in the market. Similarly, Kotler and Keller [13] defines marketing as a social process that helps the flow of products and services in an economy from the producer to the consumer and at the same time to be able to meet consumer demand and enhance the organization’s goals. Similarly, multinational companies, they need to know how to adjust your marketing strategy and how they are to adjust elements of the marketing mix in the market for universal [14]. They need to know the need to adapt the product, price, promotion and location to take into account all the variables of marketing mix [13] However, the marketed product will fail if one element in the marketing mix cannot be reached indirectly will affect the profitability and performance of the company that produces the product.

2.4 Product

The first element in the marketing mix is the product. There any combination of the goods and services offered to satisfy the needs and wants of consumers. Thus, a tangible product is the one that consumer can actually touch, such as a computer, but for an intangible product is a service that cannot be touched, such as computer repair, income tax preparation or an office call. Products can be classified into two main categories that can be touched and cannot be touched. Products that can be touched are the items that can be held like a book, chair, television and so on while the product is not visible to the naked eye categorized as a product that cannot be touched, which can only be measured through delivery, credit and collateral [15]. According to Kotler and Keller [13] the product
is something that can be offered to a market for attention, owned and worn or taken in order to meet the wishes or needs of the user. Users will inevitably find a product to suit their own tastes to get self-satisfaction. Various aspects and elements of the product must be taken before they decided to purchase to ensure satisfaction after buying any product. According to Kotler and Armstrong [16], the factors to be taken into account by the manufacturer before producing a product which includes diversification of products, product design, product features, product brands, product size, packaging, service and warranty after purchase products.

2.5 Price

The second element in marketing mix is price. Price is simply the amount of money that consumers are willing to pay for a product or service. In price setting, companies should estimate customer reactions to possible prices. Companies should also estimate the preferable profit margin and possible discounts in the future. Companies must be aware of legal restrictions on pricing. The price is the amount charged for a product. Factors to keep buying, suspend or cancel the purchase directly influenced by the price of a product. Generally, all grades given by customers to benefit from owning or using a product. The price is a marketing aspect which is flexible in where it can be changed quickly. According to the researchers [17-19], they said the price is a factor influencing customer satisfaction. However, users also use price as a gauge to see the quality of a product. For those who want more expensive product quality and reliability. Similarly, Hawkins, Best, and Coney [20] stated price is a service to the quality of the signal. Depending on the product, consumers prefer to buy products at a cheaper price with the quality and the criteria that they need. In this case, employers should be more sensitive products because of the competition, competitors will lower prices cheaper than what is sold by the producers. Lupiyoadi [21] say that the pricing is very significant in providing value to the consumer in making and influencing decisions.

2.6 Place

Place refers to having the right product, in the right location, at the right time to be purchased by consumers. This proper placement of products is done through middle people called the channel of distribution. The channel of distribution is comprised of interdependent manufacturers, wholesalers, and retailers. These groups are involved with making a product or service available for use or consumption. Goi [22] defines it as any way in which consumers can get the products or services. Location factors also play a role in influencing consumer purchasing decisions in buying a product. It is important to ensure the functioning of product distribution channels to deliver products to target consumers. Among the criteria for the location of choice among consumers and is close to them go. Accordingly, the selection of appropriate locations need to employers because a wrong decision can lead to failure in business. A good location can guarantee the arrival and attract many users to change the shopping patterns and purchase [23]. tasks of distribution.

2.7 Promotion

Promotion is a communication process that takes place between a business and its various publics. In order to be effective, businesses need to plan promotional activities with the communication process in mind. The elements of the communication process are: sender, encoding, message, media, decoding, receiver, feedback, and noise. Promotion is the element in the marketing
mix of organizations that serve to inform, persuade and remind the market of the product in the hope of influencing the feelings, beliefs and behaviour of consumers [24]. The promotional activities include advertising, sales promotion, public relations, direct marketing and word of mouth (word-of-mouth). Through the campaign, marketers can attract the attention of consumers and give them information about products to enhance consumer buying interest. Promotion is important in sales, as a way to reach consumers with information about products. It is also an alternative to bring awareness to the users of the existence of a product. When the product is known, is increasing consumer demand for products and increase product sales.

5. Methodology
5.1 Conceptual Framework

Figure 1 below depicts the research framework of this study based on the discussion of variables in literature review section.

![Fig. 1. Research framework](image)

5.2 Sampling Design

Sample refers to the subset of population which is part of members from a population. Sampling method can be referred as a technique or by process that analyse the characteristics of the identified population which by selecting a sufficient number of the right elements from the population. Probability sampling was adopted when elements in the population have a known chance of being chosen as subjects in the sample. Then, the researcher can use sample that is obtained randomly to achieve this probability, and this sampling has least bias and offer more general. According to this research, the researcher has been decided students in Universiti Utara Malaysia were chosen to participate in this study. To answer the research questions through data collection and subsequent analysis, survey method is powerful and useful in finding the answers. If the population is not correctly targeted, they can do more harm than good in the study. Besides that, the survey would be in vain if data are not collected from the right people that can provide the correct answer to solve the problem. Based on Krejcie and Morgan [25] table to determine the sample size, if the size of population 27,945 students then the sample size will be 379 students. The sample sizes for this study will focus on to the students in UUM, Sintok. In this study, the population has been determined in which students at UUM and the sample size is 400 respondents. Of the 400 respondents, a total of three hundred and ninety-seven randomly selected to answer a questionnaire about this study. The respondents were selected through the class schedule issued obtained from Student Affairs and Academic Affairs UUM and they are selected based on the time of learning for some time has been set. All selected respondents were given a period of thirty (30) minutes to complete this questionnaire. Meanwhile, of the 400 questionnaires distributed, only 397 were returned and 3 were incomplete and did not respond according to the required specifications.
6. Finding and Discussion

6.1 Pearson Correlation Analysis

The correlation analysis describes a relationship between the dependent variable and the independent variable whether exist or not. The purpose of this test is to determine whether the objectives are stated in chapter one can be reached. In addition, these tests can prove the hypothesis that has been established in studies either had a significant relationship (significant) with the consumer preferences. According to Cohen (1988) as cited in Utah (2013), where r is 0.50 to 1.00, it shows the value of r is strong and large. However, if the value of r is 0.30 until 0.49, it is considered moderate. While if the value of r is 0.10 to 0.29, it shows the value of r weak or small. The results of the test are shown in Table 4.9 below:

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Result of Pearson Correlation Analysis</th>
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<tr>
<td></td>
<td>Product</td>
</tr>
<tr>
<td>Product</td>
<td>1</td>
</tr>
<tr>
<td>Price</td>
<td>.553**</td>
</tr>
<tr>
<td>Place</td>
<td>.559**</td>
</tr>
<tr>
<td>Promotion</td>
<td>.497**</td>
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<tr>
<td>Consumer Preferences</td>
<td>.545**</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)

Based on the test results of correlation analysis as in Table 4.25 above, all the independent variables price, place, and promotion demonstrate the value of r is less than 0.5 in which the price of the variable r is 0.381 and the place is 0.494 while the promotion is 0.445. These three independent variables have a moderate relationship with consumer preferences. Meanwhile, with products with a r value of more than 0.5 which is 0.545, which has a strong correlation with consumer preferences.

6.2 Multiple Regression Analysis

To test the effect of the relationship between independent variables and the dependent variable, multiple regression analysis test (Multiple Regression Analysis) was used. The results of multiple regression analysis can determine the strength of the relationship between an independent variable which is more significant (significant) towards consumer preferences. Table 2 and Table 3 shows the results of multiple regression analysis tests that have been carried out.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Model Summary</th>
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<td></td>
<td>Model</td>
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<td></td>
<td>1</td>
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<tr>
<th>Table 3</th>
<th>Regression Analysis</th>
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<tbody>
<tr>
<td></td>
<td>Unstandardized Coefficients</td>
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<tr>
<td>Model</td>
<td>B</td>
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<tr>
<td>1</td>
<td>(Constant)</td>
</tr>
<tr>
<td>Product</td>
<td>.250</td>
</tr>
<tr>
<td>Price</td>
<td>-.031</td>
</tr>
<tr>
<td>Place</td>
<td>.154</td>
</tr>
<tr>
<td>Promotion</td>
<td>.113</td>
</tr>
</tbody>
</table>

Note: R² =0.40; F= 56.433; Sig.= 0.00; **p<0.01, p<0.05
The results of multiple regression analysis of Table 4.28 showed the product, price, place and promotion of consumer preferences only affect as much as 36.5%. This value is indicated by the variance of R2 (0.365) as factors that affect the independent variables on consumer preferences. In summary score R2 by 63.5% representing other factors not analysed in this study. Moreover, the overall results of the test results of multiple regression analysis showed that not all independent variables have a relationship with the dependent variable, namely the F = 56.433 (p = 0.000). The results of this test also found that there are only three independent variables, namely dependent variable product (β = 0.355) and place (β = 0.229) and promotions (β = 0.161) had a positive beta coefficient value. For the dependent variable price rates beta coefficient indicates a negative value which is at β = -0.033. From the test results of multiple regression analysis, the independent variables for the product (p = 0.000) and place (p = 0.000) and promotion (p = 0.002) showed a significant relationship (significant) and the dependent variable as the three variable has a value of p <0.01 and p <0.05. However, another independent variable, were the price did not show any effect and influence on consumer preferences for value p> 0.05, were 0.547.

7. Conclusion

During this study, there are some limitations to be difficult for researchers to complete the study so perfect. The first limitation is the lack of cooperation from some quarters of the respondents in the data collection process. The main focus is on the student at Universiti Utara Malaysia from undergraduate and postgraduate. However, the assistance given is simple, especially in answering the questionnaire. This is evident when the form is not returned questionnaires completely. The second limitation is the lack of updated information in respect of the issue of supplement products among students. This is quite difficult for researchers to get the latest information on issues that arise in order to strengthen the research problem, especially in the aspect of the marketing mix 4P. The problem seems to get less attention and impact entrepreneurs who are not responsible for selling supplement products without the approval of the Ministry of Health. Without realizing it pose a danger to consumers and bring down the good name of the product itself. The results of this study found that the 4P marketing mix and the impact of consumer preferences in using supplements is 40 percent.

This suggests that there are other factors that can improve the methodology of the study so the results of studies. Therefore, the researchers suggested that studies be made in the future to study other aspects such as perception, attitude, culture and others. In addition, this study is limited in the northern region of Malaysia only, at Universiti Utara Malaysia. Thus, the decision is limited in the range of respondents in the north only. Therefore, researchers are encouraged that so enlarged the scope of the study to other countries so that the consumer preferences of supplements can be identified more precisely. Overall this study, have found that robust health product marketing supplements is at an average level either in terms of management of marketing and consumer preferences. However, the results of this study prove that there is a significant and positive relationship between marketing mix 4P and the consumer preferences in using the health supplement products. This shows that the marketing of health products supplements is to support the concept of the marketing mix 4P. The analysis results showed that the theoretical framework developed by the researchers was successful where the consumer preferences in using supplements is influenced by the marketing mix 4P. Thus, the operators and the consumer should take a lesson from this study to support and improve the marketing of supplement products in addition to marketing health products may continue to be marketed more aggressively in the local and international levels.
References