

Marketing Factors Influence Consumers' Buying Products from Vending Machines in Muang District, Chiang Mai Province.

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Abstract

This research studies marketing factors influencing consumers' buying decision-making process products from vending machines in Muang district, Chiang Mai province. The purposes of this research are (1) To study consumer behavior in purchasing products from vending machines, (2) To study the marketing factors that influence purchasing decisions, (3) To study the buying products decision-making process from vending machines, and (4) to forecast consumer's buying decision making products from vending machines. The group was 385 samples using descriptive statistical analysis, including percentage, frequency, mean, stand deviation, and inferential statistics, including the Pearson correlation coefficient and Multiple regression analysis to create equations to predict the decision-making process of buying products from vending machines.

The study found that most of the sample were female, aged between 26-35 years old, working as private employees, education in a bachelor's degree or equivalent with an average monthly income of not more than 15,000 baht. The consumers decide to buy products from vending machines at department stores. Popular drinking menus include fruit, juice, water, and milk. The reason for buying is personal preference, and the price is more affordable than general stores. Most of which have the purpose of choosing to buy for personal consumption once a week, 1-2 pieces per time. And consumers will compare prices before buying decision-making.

Hypothesis testing using the Pearson correlation coefficient. It was found that marketing factors were related to purchasing decisions. at the significance level of 0.01, and the results of the multiple regression analysis showed that four independent variables were process and personnel, price, place, and product. Influencing the purchase decision process from vending machines with statistical significance at the 0.01 level. Another one variable influencing the decision-making process of buying products from vending machines. With statistical significance at the 0.05 level, equations can be written to predict the decision-making process for purchasing products from vending machines as follows: Consumers' purchase decision-making process from vending machines (Y) = 0.303 + 0.248 (Process and personnel) + 0.220 (Price aspect) + 0.166(Place aspect) + 0.191(Product aspect) + 0.037(Marketing aspect)

Keywords: Marketing factors, Vending machine, Buying decision-making process

Background and Rational

The vending machine is the sale and delivery of goods by bringing the vending machine to consumers. It can be considered another sales channel often distributed in closed areas such as factories, schools, hospitals, office buildings, and places where consumers cannot go out to buy products through the system of vending machines. It is designed to allow executives to use such information for various

management services regarding stock management, sales analysis, and real-time temperature monitoring. Vending machines are another important technology role in increasing distribution channels for retail business operators. Retail businesses today have used technology to increase convenience in consumer buying decision-making. At present found that consumers need quick service and convenience to respond to customer needs by increasing and variety of vending machines at the service points (Carrillo-Alvarez et al., 2020).

Currently, the situation of epidemic of COVID-19 affecting the lives of everyone, causing a current of alertness and prevention, including healthy awareness, doing health-related businesses in line with the new normal lifestyle (New Normal), such as social distancing, food self-reliance, and prevention of other health care are attention, therefore causing SME entrepreneurs to consider investing, monitoring the situation to make investment decisions, whether investment must be similar to the original business, low investment and competitive advantage (Kasikorn R. C., 2020). The situation of the epidemic of COVID-19 is more violent. There are more infected people and it has spread out to many provinces. As a result, the Center for COVID-19 Epidemic Situation Management considers lockdown throughout the country. They invested in new branch expansion and focused on expanding small branches near communities to reach more target customers (Government Savings Bank Research Center, 2021). As a result, sales of modern retail stores dropped by a record 10.00% to 12.00% as a result of (1) stagnant purchasing power following the economic contraction of 6.40%, in line with the Consumer Confidence Index decreased to an average level of 52.60 percent, a record low. While foreign tourists contracted by more than 80.00 percent, this pressure on retailers whose locations rely on income from foreign tourists, especially from China. In addition, the worst drought in 40 years put pressure on the purchasing power of middle and lower-income consumers relying on income from agricultural products. (2) The government issued a close the city (Lockdown policy), temporarily closing stores. Business groups that are unnecessary or less necessary, such as department stores, shopping centers, supermarkets, and convenience stores, have limited opening hours. Entrepreneurs are accelerating their adaptation by reducing costs, for example, by lowering branch expansion or reducing the size of stores, and increasing sales channels in various forms (Krungsri R. C., 2020). This conforms to the number of consumers interested in relying more on technology, especially in terms of saving time and labor. It leads to habituation, also known as "Lazy" and "Lazy economy," which can be considered as a new economy that is driven by the new generation who need convenience to reduce the workload that customers will have more critical work hours where consumers are willing to pay if the products or services make them feel more comfortable. The customer behavior changes led the business to respond to such needs as logistics, online business service, and ready-to-eat food products (Marketoop, 2019).

The epidemic crisis of COVID-19 affected consumer behavior, which changed modern retailers to adapt to find a variety of sales channels and services. The vending machine business in Thailand has existed for more than 20 years, and it has become prominent in the past five years. This is reflected in the growth of the vending machine businesses. Present in Thailand has vending machine businesses, more than ten brands, and more than 30,000 kiosks. The vending machine business structure consists of 60% of beverage vending machines and 40% of other vending machines. These businesses have continued to expand continuously during the COVID-19 pandemic because it is a business that can generate real-time income 24 hours a day, and it covers many products, especially dairy products. The factors that are

significant and lead the vending machine business to be the star, and rapid growth are as follows; the lifestyle of consumers who need convenience, the wide of products, and the development of an online payment system that includes cash, Prompt Pay, scan to pay and digital wallets. These are the alternative for the retrial business costing, especially renting cost, employees by putting kiosks in some condominiums. The renting of vending machine cost about 10,000 baht per month, which is considered a low cost, and being able to sell products 24 hours. These are the advantage over the other stores.

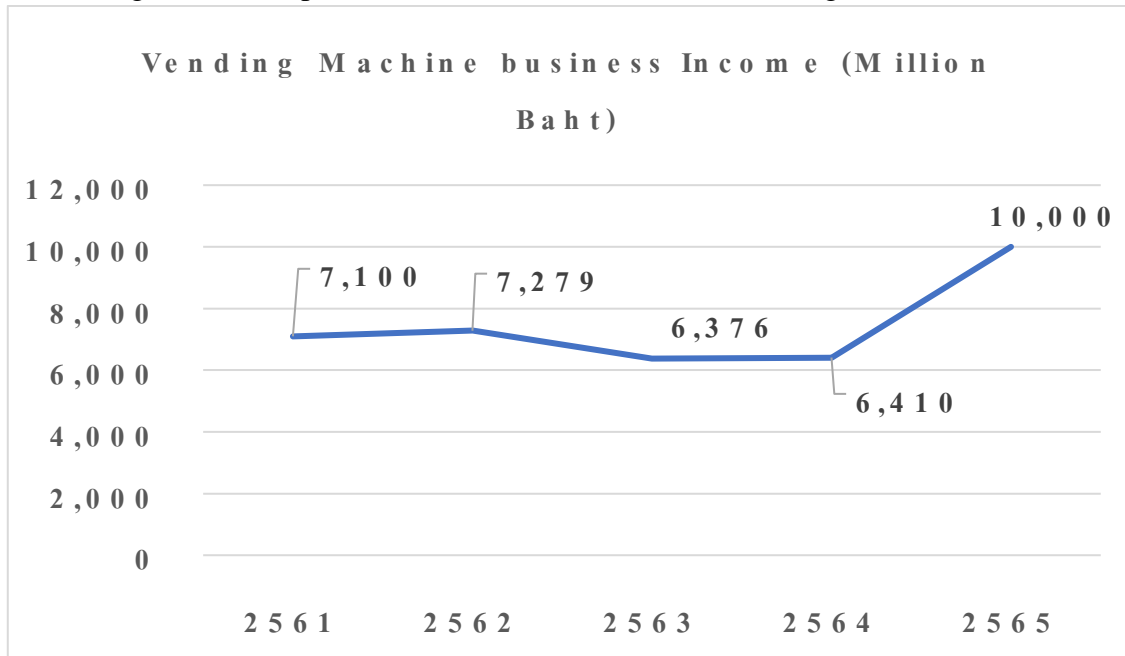


Figure 1: Vending Machine business Income (Million Baht)

Source: Department of Business Development, Ministry of Commerce and ttb analytics
 From the above data, Chiang Mai is regarded as the Northern economic center influenced Chiang Mai has a population density, and a lot of businesses, offices, hospitals, and educational institutions.

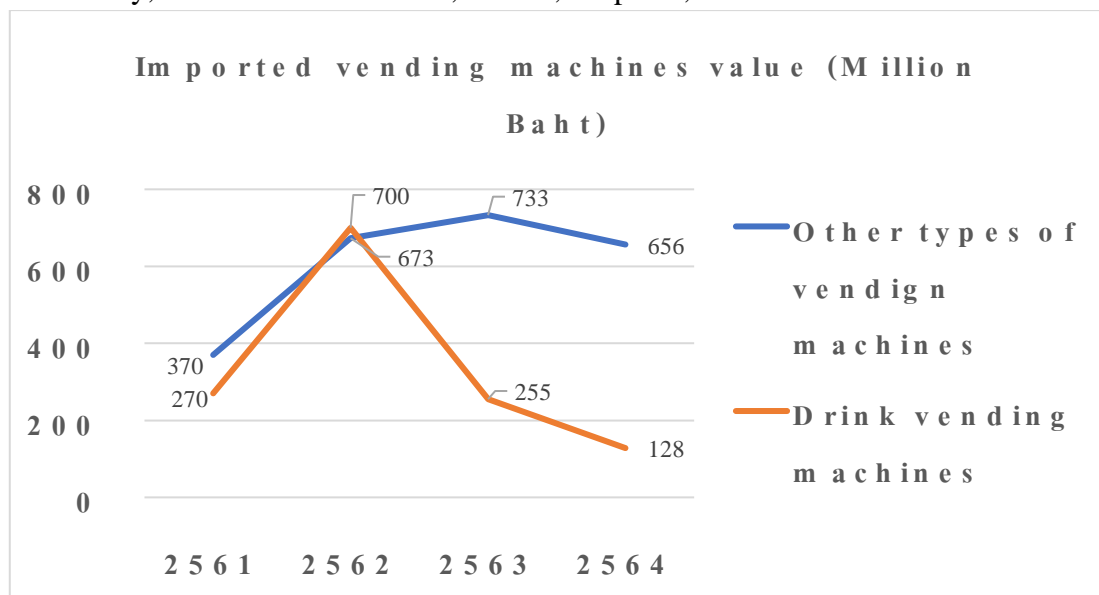


Figure 2: Imported vending machines value (Million Baht)

Vending machines are suitable for places where consumers cannot go out to buy products or want a quick and convenient purchase. As a result, the researchers are interested in studying the subject "Marketing factors influencing consumers' decision to purchase products from vending machines in Muang District, Chiang Mai Province". However, for the reason of this research, vending machine operators can use it to increase sales and awareness of consumer needs. Entrepreneurs can use the result obtained as a guideline for adjusting business planning, and developing a marketing strategy, in order to be able to meet the consumer needs to achieve the greatest satisfaction and develop vending machines more efficiently.

Objective of Study

The following were the research objectives.

1. To study consumer behavior in purchasing goods from vending machines in Muang district, Chiang Mai.
2. To study the marketing factors influencing consumers' buying products from vending machines in Muang district, Chiang Mai.
3. To study the consumer's purchasing decision-making process from vending machines in Muang district, Chiang Mai.
4. To investigate and predict equations of the consumer's buying decision-making from vending machines in Muang district, Chiang Mai.

Literature Reviews

Marketing Mix concepts and theories

A service marketing mix is a marketing tool for hospitality businesses that differ from manufacturing businesses, where the service is typically intangible. Therefore, it is necessary to use service marketing tools (7P's) that concern consumer satisfaction, which must focus on the service process in the physical environment is an essential factor in service delivery (Kaewsiri U., 2017).

Concepts and theories related to the consumer buying decision-making process

Consumers find information on many aspects before deciding to buy a product. Marketing mix factors are external factors that stimulate the consumer buying decision-making process. The consumers will mainly evaluate the choice of buying products from the marketing mix (Sukkam C., 2017).

Concepts and theories related the consumer behavior.

The consumer buying decision-making behavior means the consumers who aware of the problems from various alternatives available by searching for more information from various sources and determining the criteria used to evaluate alternatives make a buying decision making, which consumers have a make decision from products, branding, influencers, places, time, buying methods, buying frequency, budget, and buying volume (Sancharoen K., 2014).

Related Previous Research

Thamrongsuwanit (2019) studied technology acceptance and factors affecting the consumer buying decision-making process to use a new innovative supermarket service in Bangkok. The research objectives are to study domestic and international supermarket innovations, technology acceptance, and factors

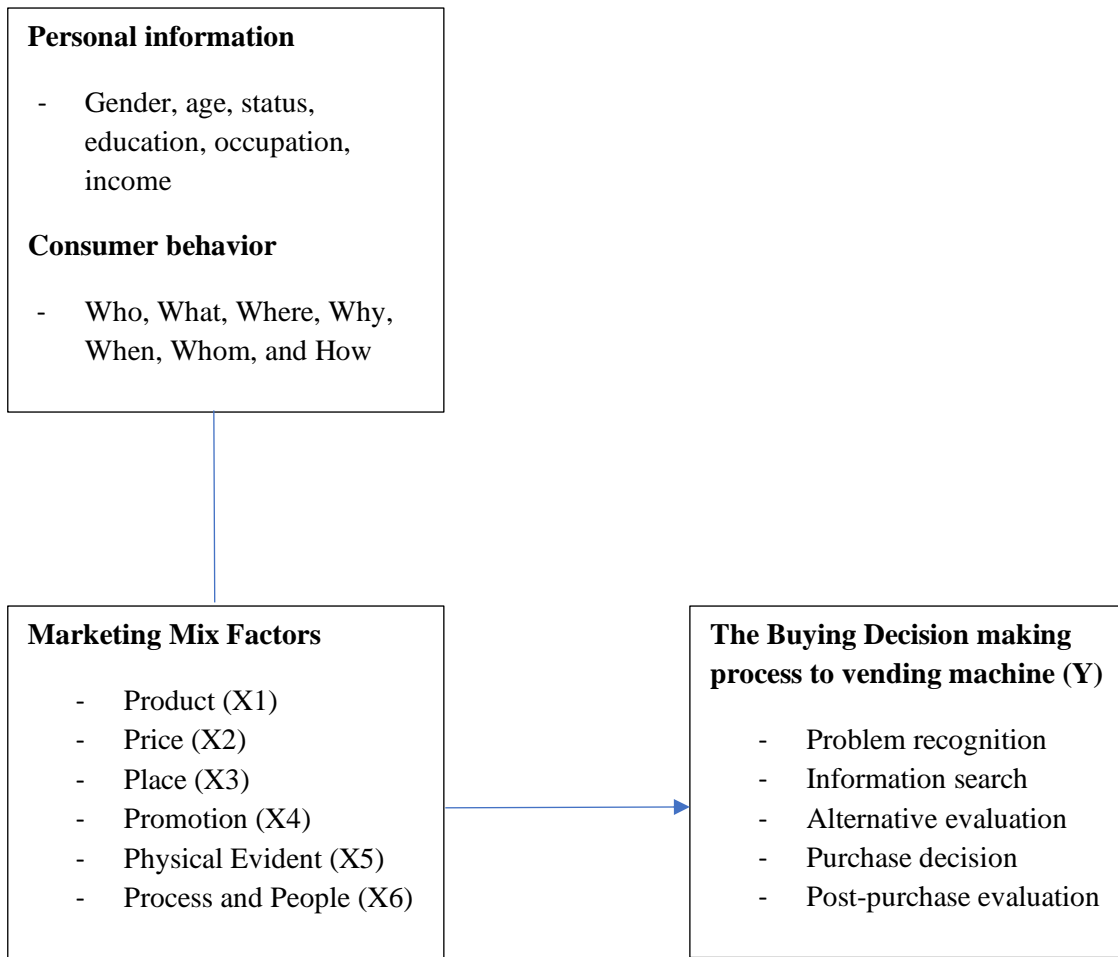
affecting the decision to use. The research used 214 respondents from the sample. The results found that the consumer behavior used supermarket service 1-2 times a month and 3-4 times a month most of the time. The average cost per time is 500-1000 baht; most products are household cleaning products, drink products, health and beauty products, snacks, dry foods, fresh foods, and frozen foods. Most payment methods are cash and credit cards. At the same time, payment from the application portion is very lower. Phawanaviwat N. (2018) studied the factors affecting the acceptance of those who use vending machines among millennials and the Z generation in Thailand. The research aims to study factors affecting the acceptance and use of vending machines among millennials and the Z generation in Thailand. The factors to be studied are performance expectation, effort expectation, social influence, facilities, liking, pricing, and habit factors. This research aims to be a guideline for operators to develop vending machines more efficiently and meet customer needs. The population of this research was millennials or customers aged 20-39 years old, and Z generation aged 9-19 years old in Thailand and with experience using vending machines at least once. Especially the millennials group focuses on the speed of service; then the price is low than other stores, while the Z generation also pays attention to the speed of service; as for other behaviors, both generations are not different, that is, in terms of purchase frequency. Both generations buy products through vending machines less than once a month and 1-2 times a month. The type of vending machines both generations use cash payment vending machines, then use application payment vending machines. The products most purchased through vending machines are soft drinks and bottled water. The place where vending machines are most likely to be purchased is made is at educational institutions, train stations, and underground stations, respectively. At last, regarding the average purchase expense per time, both generations tend to buy an average of 15-30 Baht per time and less than 15 Baht, respectively.

Juliana et al. (2022) studied the effect of the marketing mix and technology acceptance patterns on purchase intention through vending machines as mediated by attitude to study the significant positive effect of TAM on attitude. Attitude affects purchase intent, and attitude is the mediated effect of TAM on purchase intent. This research will be helpful to researchers who will research to increase the purchase intent and retailers. It is one of the strategies to increase revenues through vending machines. Purchase intent refers to the likelihood that a consumer will purchase a product or service in the near future. Purchase intent is the result of an individual's subjective decisions after evaluating a product or service, i.e., a situation in which a consumer is likely to purchase some products under conditions; it reflects how purchase intent validates the consumer's purchase intent and subsequently purchase intent as well as repurchase. It has many factors that affect the customer's intention to buy a product. Ultimately, the buying decision depends on the consumer's intentions with several external factors. Purchase intent can measure the likelihood of consumers buying a product and the higher the purchase intent. Purchase intention can measure the likelihood of consumers buying a product. If the higher the purchase intent affected the consumer's willingness to buy the products, the more likely it is.

Conceptual Framework

Independent variables

Dependent variables



Result and Discussion

From the study of marketing factors influencing the decision-making process of buying products from vending machines. Most of the results were female, aged between 26 and 35 years old, working as private employees, having a bachelor's degree or equivalent, and having an average income of not more than 15,000 Baht, purchasing the most products from vending machines at department stores. It is popular to buy products from vending machines such as drinking water, juice, and milk, which is consistent with the study of Phawanaviwat N. (2018). The reason for choosing to buy products from vending machines is personal preference. It is not compatible with the study of Chaengpong D. (2020) to purchase goods from vending machines, i.e., buy products for yourself/privately once a week will select products from vending machines 1-2 pieces per time and compare prices before making a purchase decision that it isn't consistent with the study of Supornpaiboon S. (2017).

An overview of the marketing factors consumers pay attention to marketing mix factors; a process and personnel factor found that consumers have priority of accurate and precise checking, such as payment, and change of money, which is consistent with the study of Chaengpong D. (2020).

Consumers pay attention to Marketing factors are price - the price is suitable for the size and quantity of the product, which is consistent with the study of Chaengpong D. (2020).

Marketing factors in terms of location, it was found that consumers focused on the location of the vending machine is well-lit and easily accessible to customers, which is consistent with the study of Chaengpong D. (2020).

Marketing factors in terms of product, it was found that consumers pay attention to the cleanliness, taste, and quality of the product are reliable, which is consistent with the study of Chaengpong D. (2020) and marketing factors in terms of promotion, it was found that consumers pay attention to collecting points to redeem benefits in the future and also apply for membership to get benefits or receive special promotions. The buying decision-making process from vending machines in the Muang district. Chiang Mai found that consumers pay more attention to wanting to buy products because they can get the product quickly, it can meet the convenience of living and is worthwhile meet the convenience of living. This is consistent with the study of Thamrongsuwankit A. (2019) and Phawanaviwat N. (2018).

The relationship between marketing factors and buying decision-making process from vending machines using Pearson's Correlation Coefficient at a significance level of 0.01 was shown that marketing factors were product, price, place, marketing promotion, physical evidence, process, and the buying decision-making have a relationship with buying decision-making process which is consistent with the study of Supornpaiboon S. (2017). Stepwise multiple linear regression analysis found that four independent variables influenced the decision-making process for purchasing goods from vending machines, with statistical significance at the 0.01 level. The independent variables that strongly influenced the buying decision-making process were process and personnel, followed by price, location, and product. One independent variable influenced the decision-making process of buying items from vending machines. A promotion was statistically significant at the 0.05 level, which is consistent with the study of Chaengpong D. (2020).

Suggestions and Recommendations

Suggestions on marketing factors

Product factors: Entrepreneurs should pay attention to the variety of product types to meet the consumer's needs so that consumers can choose from a wider variety or add fashionable products to attract demand and make vending machines attractive, including the cleaning, taste, and product quality to make the product reliable, attractive, such as the sale of condoms from vending machines, because they did not dare to buy from the salesperson feel embarrassed when having to buy with a salesperson.

Location factors: Entrepreneurs should pay attention to the place of installation of vending machines. It should be installed in a well-ventilated location; the vending machine should be well-lit so that consumers can see the product and price clearly. It should also be set in place. that can make consumers easily accessible, such as educational institutions and shopping malls.

Price factors: Entrepreneurs should pay attention to the fact that the product's price is suitable for the size and quantity that the consumer receives. product quality that consumers receive when compared to buying products from other channels to meet the needs of consumers at that time. In addition, the price should be very affordable and in accordance with the advertisement.

Promotion Factors: Entrepreneurs should focus on accumulating points to redeem the privileges in the next purchase, apply for a membership to receive benefits, or receive special news. It attracts consumers

to be more interested in buying products from vending machines than choosing to buy through other channels.

Physical evidence factors: Entrepreneurs should pay attention to the clean, beautiful, and clearly visible buttons to catch the attention of consumers who look through the vending machine.

Process and personnel factors: Entrepreneurs should always pay attention to regularly replenishing goods in the vending machine; fast replenishment; clean the vending machine quickly, clearly categorize products, and have a variety of payment channels to support payments currently increasing.

Therefore, the equation for predicting the buying decision-making process (Y) from consumer vending machines can be written as follows:

$$\text{Purchasing Decision Process (Y)} = 0.303 + 0.248 (\text{Process and Personnel}) + 0.220 (\text{Price}) \\ + 0.166 (\text{Place}) + 0.191 (\text{Product}) + 0.037 \\ (\text{Marketing Promotion})$$

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