

Service Marketing Mix and Acceptance of Technology Affecting Consumers' Satisfaction through Food Delivery Applications

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ABSTRACT

Abstract— The growth of the food delivery is driven by a demographic structure with smaller household sizes and more convenient behavior. An effective service marketing strategy and acceptance of delivery application can be responsive to service behavior and customer satisfaction even more. This research aimed to study demographic factors, service marketing mix factor, and technology acceptance factor affecting consumers' satisfaction through food delivery applications. This research uses a quantitative research approach. The target population is consumers who have previously used food delivery applications services of 385 samples living in Bangkok by using multi-step sampling. The questionnaire was used as a tool for data collection. The statistics used for data analysis were percentage, mean, standard deviation, Independence sample t-Test, One-way analysis of variance, and Multiple regression analysis. The hypothesis testing results were found that consumers with different gender, age, education, occupation and monthly income exhibited the satisfaction through food delivery applications were different with statistically significant at .05. In addition, it was found that the factors of the service marketing mix in the aspect of place, promotion, process, and physical characteristics affected the satisfaction through food delivery applications. Moreover, the technology acceptance factors in the aspect of perceived benefit, and attitude toward using affected the satisfaction through food delivery applications.

Keywords— Food delivery application, Service marketing mix, Satisfaction, Technology Acceptance

INTRODUCTION

Nowadays, daily life patterns have changed due to the development of innovation and technology. The industrialized society is entering the era of globalization which has an influence on society, economy, culture and human behavior are constantly changing. As a result, businesses have adapted to meet the changing needs of consumers. Today's consumers tend to think about convenience and speed. Consumers are increasingly demanding to buy food via the Internet, whether through websites or apps, as well as easily accessible home delivery food businesses anywhere and anytime.

Food delivery business has a very high growth prospect. It was found that during the past 5 years, this business has continued to expand. The growth of the food delivery business is in line with a demographic structure with smaller household sizes and more convenience and time-saving consumer behavior. As a result, small and medium-sized food store can reach consumers more easily. There are online food ordering services through applications for consumers to make more choices, such as Grab Food, LINEMAN, Food panda, Now, Robinhood, etc. Each of which has similar usage characteristics but there will be differences in food delivery service fees, method of payment, method of application, menu of use service, area and service time in order to respond to the behavioral needs of diverse consumers (Kasikorn Research Center, 2020).

Electronic Transactions Development Agency (ETDA) has surveyed online behavior regarding the use of the online food delivery service of Thai people in order to analyze the information and support the information in planning and policy on online transactions. It has been found that Gen Y users (19-38 years old) use the online food delivery service the most at 51.09%. The reason for using the service at 80.37% was that they did not want to travel to sit and ate at the restaurant by themselves. As well as 57.63%. concerned about the situation of the COVID-19 epidemic which was also another important factor that affected the decision-making behavior of Thai people in choosing an online food ordering service. The group that chose to order food online the most because they worried about the spread of COVID-19 is Gen Y 40.2% (Electronic Transaction Development Agency, 2020).

Therefore, the researcher was interested in conducting a research study on the service marketing mix and technology acceptance factors that affects satisfaction of consumers in using the food delivery application. The research findings can be used as a guideline for creating a service marketing strategy and adjusting the efficiency of food delivery service application in order to be more response to service usage behavior and customer satisfaction as well as a good attitude towards the use of the application. As a result, the food delivery business will continue to grow in the future. The objectives of the research were to study the demographic characteristics, factors of marketing mix and factors of technology acceptance of food delivery application that affect the satisfaction of consumers using food delivery applications in Thailand.

LITERATURE & THEORY

Service marketing mix factors

A service marketing mix is a marketing strategy or marketing tool that is a controllable factor which businesses often use to meet the satisfaction and needs of their target customers. Originally, the marketing mix had only 4 variables (4Ps), namely Product, Price, Place, and Promotion. Subsequently, 3 more variables were invented to be applied to the marketing of service businesses consists of People, Physical characteristics and Process. Therefore, it can be called a service market mix 7Ps (Kotler & Armstrong, 2018). This study of food delivery business via application was based mainly on the service marketing mix consisting of 7 aspects as follows:

Product or service refers to what a business has to offer to consumers. A product or service in the service industry has a key component, i.e. the main product or service, characteristics, variety of services are available, service reliability, brand name, service benefits and service design. These elements will lead to marketing analysis in order for the vendor to develop the product or service more efficient.

Price in the service industry is different from the business that produces products for sale. The factors that affect the prices of the service industry are different from other types of businesses. Especially the quality of service is another thing that determines the service price. which business that provides good service acceptable and customers trust would inevitably make customers willing to pay a higher price. Because customers are confident that the services they receive are worth the money they pay.

Place or Distribution channel is a service channel to provide services to users. Each type of business may use different service channels. But the important thing is to distribute the products and services that are available to the target customers as much as possible.

Promotion is an activity related to advertising, sales by salespeople, promotion, and communication with customers. So that information about products and services can be delivered to customers in a comprehensive manner. The marketing promotion will be effective or not. It depends on the nature and effectiveness of the communication from the seller to the customer. As for whether the customer will accept the news or not. It depends on the credibility and reputation of the service provider. Marketers need to consider how to use the methods in order to deliver information to customers accurately, completely and efficiently.

Process is an algorithm for the operation of the service, which will have different processes and procedures to provide services to customers depending on each type of industry. Businesses should focus on the standardization of service processes. The process of providing good service must have clearly defined service standards. So that the operator can work properly and in accordance with the established standards.

6. *People* means all employees in different departments working in the service industry. Personnel is the most important factor in quality service management. The personnel must be qualified for the service which must be a person who has the knowledge, ability and skills to perform the service that is responsible.

Physical characteristics is physical evidence of the service industry are another important element that help motivate customers to make easier service decisions. Good physical appearance or pronounced physical appearance will help build credibility to customers that they will receive good service or not disappointed in the service.

Technology acceptance

A study on the technology acceptance is a study to understand and reach the final user in adopting the new technology. A concept was invented by Davis (1989) has created the Technology Acceptance Model (TAM) which makes the process of explaining the change in adoption of technology clearer. This creates a personal

benefit or changes related to behaviors, attitudes and simplified use of technology. This study examined the technology adoption variables, including perceived benefit, perceived ease of use attitude toward using, and intended to use (Davis, 1989; Fishbein & Ajzen, 2010; Kim, 2016).

Perceived benefit means the person's perception that the information system used is beneficial. If using a newly developed information system will make the work more efficient. The perception of benefits directly influenced the intention to use information systems.

Perceived ease of use refers to the process of recognizing that using the technology results in an easier use without much effort. Perceived ease of use will make Increase the efficiency of use and benefit in use.

Attitude toward using refers to the feelings, beliefs and tendency of a person's behavior towards a person or thing or any thought in the manner of assessing feelings, beliefs, and behavioral tendencies that will persist for a considerable period of time. The user's opinion of the technology is due to the perception of its usefulness and ease of use. Behavioral intent directly determines the user's future adoption of the technology or use of the system.

Intention to use refers to the readiness or possibility of a person to demonstrate a behavior the intention to attempt that behavior. Intention is the motivating factor that influences behavior and is an indicator that a person has made effort to perform the behavior. The more intent and effort a person has, the greater the likelihood that a person will commit a behavior.

RELATED WORKS OR DISCUSSION

The study was conducted on factors affecting service satisfaction and found that the service marketing mix factors which consists of product, prices, distribution channels, promotion, process, people and physical characteristics had affected the behavior of using food delivery services through food delivery applications (Boonthanapirat, 2017; Wiangta, 2017; Dhevakul, 2019; Kanokon Soonthornsawat, 2019). Moreover, the factors of technology acceptance that includes the perceived benefit, perceived ease of use, attitude toward using and intention to use which was the factor that affected the behavior of using food delivery services via applications as well (Petpradubsook, 2020; Chotigo & Kadono, 2021). The results of the study will enable food delivery drivers through the application know what factors influence consumers' satisfaction and could use the information to decide on marketing guidelines in order to meet the needs of consumers and to use the service repeatedly

The above theories and related works are used as a reference and as a guideline for determining the variables in the research conceptual framework as Figure 1.

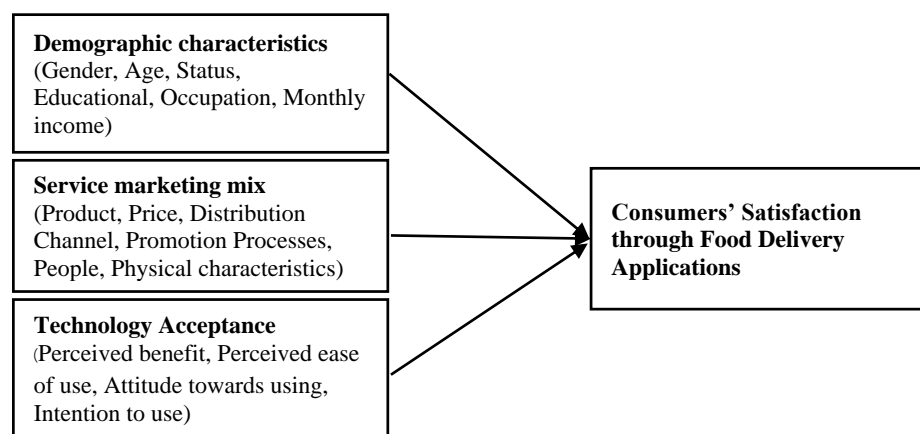


Figure 1

Conceptual framework of Service Marketing Mix and Acceptance of Technology Affecting Consumers' Satisfaction through Food Delivery Applications

From the research conceptual framework, the hypothesis of this research can be formulated as follows:

Hypothesis 1: Consumers who use food delivery application have different demographic characteristics comprising gender, age, status, education, occupation, and monthly income are different consumers' satisfaction through food delivery applications.

Hypothesis 2: Service marketing mix consists of product, price, distribution channel, promotion processes, people, and physical characteristics affects consumers' satisfaction through food delivery applications.

Hypothesis 3: Technology Acceptance consists of perceived benefit, perceived ease of use attitude towards using, and intention to use affects consumers' satisfaction through food delivery applications.

METHODS

Population and sampling method

The population used in this research was the people living in Bangkok where the researcher did not know the exact number of the population. Therefore, the method of determining the sample group used the table of Taro Yamane (1973) to determine the size of the research sample with an acceptable sampling at 95% confidence level. A total of 385 samples were conducted and probability sampling was selected by using a multistage sampling method. By the multistage sampling, the sample groups in Facebook were selected total of 6 groups that were expected to find people who use food delivery services via application. The questionnaire was distributed to collect data from members who use delivery service by hanging a link in the selected group and collect data until the total number of samples.

Research tools

Tools used in this research as a questionnaire which consisted of questions based on characteristics to be measured, divided into 4 parts: Part 1 Demographic characteristics, Part 2 Behavior of food delivery services via application, Part 3 Service marketing mix, and Part 4 Technology acceptance of food delivery application. The questionnaire is a 5-level rating scale of Likert. The researcher tested the validity and reliability of the questionnaire to obtain accurate research results and achieve the stated objectives. In this regard, the researcher will provide a preliminary questionnaire test of 40 sets. The results of checking the confidence of each question have a confidence value between 0.714-0.852, which is between 0.7-1.00 passed according to set criteria.

Statistics and Data analysis

The researcher used the statistical package to analyze the statistical data by using descriptive statistical analysis such as frequency, percentage, mean and standard deviation to distribute the properties of the variables. As well as the inferential statistical analysis was used to test research hypotheses by using Independent sample t-test), One-Way Analysis of variance and Regression analysis.

RESULTS

Descriptive data analysis

-The demographic characteristics was found that most of the respondents were females, aged between 21-30 years old, highest education was bachelor's degree, marital status was married, occupation was as an employee of a private company and had monthly income between 20,001-30,000 baht.

-The behavior of using food delivery services through application was found that the number of frequencies consumer used delivery service per month was 10 times, and the cost of food delivery service per time was about 193 baht, preferring to order savory food who affects the decision to use the service was himself, the reason for choosing the service is because it was not convenient to go out to buy food, most of time to use the service was 11:01-14:00 and most of the places to deliver was home.

-The characteristic of variables used in this research were service marketing mix and technology acceptance of food delivery service application. The results found that most of the consumers have opinions on the service marketing mix overall at a high level. The aspect that consumers paid the most attention to was the aspect of distribution channels, followed by people, marketing promotion, product, process, physical characteristics and price, respectively, were at a high level in all aspects. For the technology acceptance of food delivery service application, overall opinion was at the highest level. The aspect that consumers paid the most attention to was the perceived benefit, followed by the aspect of perceived ease of use, attitude toward using and intention to use, respectively, were at the highest level in all aspects.

Hypothesis testing

Hypothesis 1: Consumers who use food delivery application have different demographic characteristics comprising gender, age, status, education, occupation, and monthly income are different consumers' satisfaction through food delivery applications.

The results of the comparison of the satisfaction of using the food delivery application service classified by demographic characteristics to test the hypothesis 1, it was found that service users with gender, status, educational level, and different monthly income had different satisfaction in using the food delivery application service. While service users with different occupation and income had satisfaction in using the food delivery application service with indifferent with the statistically significant at the .05.

Hypothesis 2: Service marketing mix consists of product, price, distribution channel, promotion processes, people, and physical characteristics affects consumers' satisfaction through food delivery applications.

The results of analysis by using multiple regression analysis to test the hypothesis 2 was shown in Table 1

Table 1
Regression of service marketing mix factors (7Ps) affecting consumers' satisfaction

Variables	B	β	SE	t	Sig.
Constant	0.96		1.158	4.584	.000**
Product	0.017	1.444	.062	1.630	.067
Price	-.095	-1.02	.776	-1.481	.121
Place	0.354	0.341	.784	3.930	.000**
Promotion	0.212	0.217	.767	2.430	.023*
Process	0.226	0.232	1.161	2.522*	.019*
People	-.128	-.134	.695	-1.199	.231
physical characteristics	0.302	0.314	.814	3.558	.009**
R=.726 Adj R ² =.061 R ² =.527 F=4.217 SE=.058 Sig.=.000					

** Significant level at .01, * Significant level at .05

Table 1 shown the analysis of the influence of service marketing mix factors on the satisfaction of using food delivery service via application was found that the aspect of distribution channel, marketing promotion, process, and physical characteristics affected the satisfaction of using the service which was consistent with the research hypothesis. While the aspect of product, price and people did not affect the satisfaction of using the service which is inconsistent with the research hypothesis. When considering the weight of the effect of the independent variable determined by the multiple regression coefficients in the form of a standard score, was found that the predictor with the highest multiple regression coefficient was the aspect of distribution channel, followed by physical characteristics, process, and promotion, respectively. All variables could be predicted together with statistically significant at F=4.217, S.E.=.058 and could explain the variance in service satisfaction at 52.7 percent.

Hypothesis 3: Technology Acceptance consists of perceived benefit, perceived ease of use attitude towards using, and intention to use affects consumers' satisfaction through food delivery applications.

The results of analysis by using multiple regression analysis to test the hypothesis 2 was shown in Table 2.

Table 2
Regression of technology acceptance of food delivery application affecting consumers' satisfaction

Variables	B	β	SE	t	Sig.
Constant	1.140		.954	5.517	.000**
Perceived benefit	0.422	0.431	.685	4.562	.000**
Perceived ease of use	-.155	-.158	.776	-.325	.135
Attitude towards using	0.265	0.273	.532	2.950	.014*
Intention to use	0.176	0.182	.421	2.084	.085
R=.722 Adj R ² =.057 R ² =.521 F=4.356 S.E.=.056 Sig.=.000					

** Significant level at .01, * Significant level at .05

Table 2 shown the analysis of the influence of technology acceptance of food delivery application affecting the satisfaction of using the service of food delivery application was found that the aspect of perceived benefit, perceived ease of use, and attitude towards using affected the consumers' satisfaction which was consistent with the research hypothesis. While the aspect of intention to use did not affect the consumers' satisfaction which is inconsistent with the research hypothesis. When considering the weight of the effect of the independent variable determined by the multiple regression coefficients in the form of a standard score was found that the predictor with the highest multiple regression coefficient was perceived benefit, followed by perceived ease of use, and attitude towards using, respectively. All variables could be predicted together with statistically significant at $F=4.356$, $S.E.=.056$ and could explain the variance in service satisfaction at 52.1 percent.

CONCLUSION AND FUTURE WORK

Conclusion and Discussion

From the results of the study, there were important issues that were discussed in the study results as follows:

1. The results found that service users with different gender, status, educational level, and monthly income had different satisfaction in using the food delivery application service. This is consistent with the concept of Schiffman & Kanuk (1994) that the behaviors expressed by consumers in the pursuit of purchasing, using, estimating and spending. The products and services he expected will satisfy his needs. As well as the research of Klaengkla (2018) and Phongsupat (2018) stated that consumer behavior was the action of a group of people in purchasing goods and services for personal consumption and demographic characteristics such as age, income, religion, culture, educational level etc. result in different consumer behavior and satisfaction towards products. This may be due to the fact that mobile applications are now a communication tool that is accessible to everyone regardless of gender, status, education level, age, occupation and income. Moreover, consumers with different monthly incomes affected their decision to use the application differently because ordering food through the application is economical in terms of time, so that consumers can have time to do other things. High-income people are more likely to opt for food delivery services via the application.

2. The results of the study revealed that the service marketing mix in the aspect of distribution channel, promotion, physical characteristics and processes affected service satisfaction. This is consistent with a similar research as of Dhevakul (2019) found that the marketing mix factor in the aspect of distribution channel and marketing promotion affected the decision to order food through the application of consumers in Bangkok. Including the research of Petpradubsook (2020) found that the marketing mix factor influenced service usage behavior in terms of service usage frequency and the average maximum amount to use the service. As well as Wangta (2017) found that the promotion affects the decision to use the food ordering service via the application. This may be due to online food ordering and food delivery services through the application was a distribution channel that facilitated customers, save time and the cost of traveling to buy at the store, including the shop often has a variety of marketing promotions to attract customers to use the service. As well as the application has an easy-to-understand and service process are accurate, reliable and effective. However, the results showed that the service marketing mix in the aspect of product, price, and people did not affect the satisfaction of using the application. This may be due to the fact that food delivery services are often tied to online food sales which the user cannot see or touch the product especially new customers who have never ordered before. As well as they did not sure about the quality of the food, including selling food online often costs more from delivery services which increase the cost of the product. As well as personnel may have limitations in communication with consumers if there is no good communication management.

3. The results showed that the technology acceptance factor of food delivery service applications in the aspect of perceived benefit, perceived ease of use, and attitude towards using affected the satisfaction of using the service. This is consistent with similar research of several researchers such as the research by Ohk et al. (2015). The research found that the aspect of perceived benefit, perceived ease of use, and interaction to use influenced the satisfaction of service and has a positive influenced on intention to use. Including research by Petpradubsook (2020) found that technology acceptance factors influence behavior in frequency of service use. This may be due

to the use of food delivery applications could benefit to consumers and it is a trend that is popular in the present, including the epidemic of COVID-19 must avoid confrontation with others. This makes the use of delivery services to meet the needs of today's consumers which was comfortable and quick to use, as well as it can calculate cost and distance quickly and know the time and cost instantly. However, the results showed that technology acceptance factor of food delivery service applications in the aspect of intention to use did not affect consumer satisfaction positively. This may be due to the application was a relatively recent technology which consumers may not be familiar with or not have enough technology knowledge to use it. According to Davis (1989) technology acceptance model, perceived ease of use also affects intent to use (Kim, 2016).

Recommendation and Future Work

The researcher has the following suggestions:

1. The businesses related to food delivery service should pay more attention to demographic characteristics by increasing the variety of services that can meet consumers of all genders, status, age, education level, occupation and monthly income. Moreover, there should be a main target audience to store a customer behaviors database in order to build good relationship and create satisfaction for customers.
2. The businesses related to food delivery service should focused the service more efficiency and reliable. It should also focus on service marketing mix in the aspect of physical characteristics, people and processes such as increasing vehicle maintenance costs, improving the staff's uniforms to be more modern clean and more safety to create credibility and memorable for consumers.
3. Application providers should improve their applications to provide more functionality, easier to use and more security including creating a better corporate image through various social media to encourage consumers to have a more positive attitude towards using the application and encourage consumers to want to use the service repeatedly.

Suggestions for further research, there should be a study of variables in other factors affecting such as the factor of marketing innovation, socioeconomic, electronic marketing etc. Furthermore, the scope of the study should be broader and more comprehensive, such as surveys to provincial areas to more closely compare opinions from different demographic characteristics. As well as other statistics should also be used in the analysis for more causal correlation analysis results and can be utilized even more.

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