

DECISION-MAKING FOR USING FOOD ORDERING APPLICATIONS ON SMARTPHONES BY PEOPLE IN THE PROVINCE OF RATCHABURI

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Received 13 December 2022

Revised 24 June 2023

Accepted 27 June 2023

ABSTRACT

The research sought to accomplish the following goals: 1) To examine the demographic factors influencing the decision of people in Ratchaburi province to use smartphone applications for food ordering, and 2) To study the marketing mix factors, as perceived by consumers influencing customers' decisions to use smartphone applications for food ordering in the province of Ratchaburi. This study employed a quantitative research methodology and collected a convenience sample of 313 participants. The statistical analysis included a variety of methods, such as percentage calculation, determination of mean and standard deviation, t-test, one-way ANOVA, and application of the Multiple Indicators and Multiple Causes Model (MIMIC model). The decision of consumers in Ratchaburi province to place their food orders via smartphone applications was influenced by a variety of demographic factors, including gender, age, education level, and average monthly income. At the 0.05 level of statistical significance, these factors were found to be significant. In addition, the opinions of customers regarding the aspects of the marketing mix that were considered in the decision-making process were taken into consideration. These aspects of the market were referred to as Consumer Wants and Needs (CWN), Convenience to Buy (CTB), Communication that Connects (CTC), and Consumer's Cost to Satisfy (CCS). It was determined that these parameters had a predictive value equivalent to 76.30 percent.

Keywords: Purchase Decision, Application for Ordering Food, Marketing Mix from Consumers' Viewpoints, MIMIC model

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Introduction

The consumption of food is an essential component in maintaining and improving the quality of human life (Office of The Royal Society, 2020). It is generally acknowledged as one of the primary requirements for human survival and has a significant role in the formation of our way of life. The current era is increasingly characterised by urbanisation, chaotic schedules, strong competitiveness, and constant traffic congestion. More and more people, therefore, try to find some technology that could help make their life as easy as possible. It found that in today's society, many people consider using applications for ordering their food and services online. This is to reduce the time-making queues in food shops which helps save a lot of their time and allows them to order their food in advance. Ordering food through online applications, thus, becomes one of the most preferable trends and ways done by many Thai people these days. Research by Saichana and Srinuan (2018) found that most of the consumers of online food applications were a group of students and they were satisfied with the online food applications as they use a very short response time and meet consumers' needs.

Besides, the report showed that Thais have adopted the practice of purchasing food and beverages using app-based platforms that offer home delivery services. This trend has grown in popularity due to the convenience it provides in obtaining meals. Furthermore, these platforms frequently provide great discount programs, making the food more reasonable when compared to purchasing straight from physical retailers. As a result, online platform entrepreneurs can observe and change their delivery services to match the individual needs of customers who use their online applications for food orders. This shift toward online meal ordering matches Thai people's current lifestyles and delivers various benefits to consumers, including convenience, lower pricing, and appealing marketing campaigns. The KBank Research Centre made a prediction that by the year 2019, the food delivery sector in Thailand will reach a value of 33,000-35,000 million baht, representing an increase in value of 14 percent when compared to 2018. This suggests that there is great potential for growth as well as investment within the sector. This industry is growing as a result of the growing popularity of applications that deliver food, which has contributed to the rise of this sector. Businesses are working hard to tap into the enormous food market networks. The fact that all of these elements are working together makes the Thai food delivery sector an attractive proposition. (Foundational Information: KBank Research Centre, 2019) Ordering food through a mobile application requires a platform intermediary that puts together various food establishments and facilitates the delivery and presentation of food to customers. This practice is widely recognized and popular among a large number of Thai businesses. Foreigners dominate this industry, which offers a wide variety of products, including food and beverages. To reach their target demographic, these businesses rely heavily on modern technology, which has become intricately intertwined with consumers' lifestyles. In Thailand, 93.7% of consumers use smartphones for a variety of purposes (Brand Age Online, 2022). This can be determined

by scrutinizing the overall landscape and delving into the specifics. According to Marketing Oops (2015), this emphasizes the significance of accessing the internet via mobile devices. Given that 70.3% of Bangkok's population predominantly uses smartphones to access the internet, businesses operating in this sector must prioritize smartphone accessibility.

Research Objectives

1. To examine the demographic factors influencing the decision of people in Ratchaburi province to use smartphone applications for food ordering, and
2. To study the marketing mix factors, as perceived by consumers influencing customers' decisions to use smartphone applications for food ordering in the province of Ratchaburi.

Literature Review

Concepts and Theories Related to Consumer Behaviour

Sameajai (2007) analyzed marketing behaviour in 7 aspects. It is called 6Ws and 1H. It must consider its marketing characteristics and the details are shown as follows:

1. Who is the target market?
2. What does the market buy?
3. Why does the market buy?
4. Who participates in the buying?
5. When does the market buy?
6. Where does the market buy?
7. How does the market buy?

When determining the marketing characteristics of consumers, the 6W 1H framework can be utilized to generate a condensed summary of the answer keys that can be employed. The following categories make up this structure: "who," "what," "why," "who," "when," "where," and "how." For searching the answer to 7 aspects 7 or 70s, it consists of Occupants, Objects, Objectives, Organizations, Occasions, Outlets and Operations. It is applied and used for making questions and giving answers 7 to aspects of consumer behaviour and marketing strategies that are agreeable to consumers' needs.

Concepts and Theories Related to The Marketing Mix from the Consumer's Point of View

The idea of the marketing mix, which was first presented by Kotler (2012), is quite well-known. According to Kotler (2012), the marketing mix, which is also known as the 4Ps, is comprised of controllable marketing variables that businesses exploit to cater to the needs of their respective target audiences. It consists of tools as follows:

1. Product means things to present to the market and respond to consumers' needs and satisfaction.

2. Price means the product's value as a form of money.
3. Place or Distribution means place structure, and it consists of institution and activity. It is used for movement of products and services out of the organization to market.
4. Promotion means the market communication process. It uses people or media to remind, inform, and persuade. But this new concept is presented from the original start of consumer's need, it is developed to the marketing mix of consumer's viewpoint. It consists of details as follows:

- 1) Consumer Wants and Needs
- 2) Consumer's Cost to Satisfy
- 3) Convenience to buy
- 4) Communication that Connects

Marketing mix of consumer's viewpoint is emphasized and solves problems of customers or consumers "4Cs". It is a fundamental principle in the field of marketing. Businesses in this day and age are unique, which is why they will be successful despite the intense competition. These businesses make a difference and provide important things to ensure the meet of the need of their consumers. The process of marketing viewpoint will be changed consumer's viewpoints. The original business gives importance to production, resource distribution, power, ability, and need of business organizations. This component is called Marketing Mix = 4Ps for adjusting concept: "Marketing Mix of Consumer's Viewpoint" (Panthutanasopon, 2015; Constantinides, 2006; Ali & Anwar, 2021). The idea of Marketing 5.0 in 2020 came about because robotic technology kept getting better and better. In this era of a super smart society, a collaboration between technology and humans is expected to increase efficiency for consumers in consuming company products or services. According to Lee and Trimi (2018), the two primary objectives of Marketing 5.0 are to place an emphasis on the significance of enhancing the quality of life of consumers via the use of automation technology and to enhance the quality of interactions that occur between consumers and service providers through the application of AI technology. This is the reason the 4Ps idea has given way to the 4Cs concept. (Wibisono & Pasulu, 2022; Yadav, Sota & Chaudhary, 2023)

Concepts and Theories Related to Consumer Buying Process

Schiffman and Kanuk (2007) said that the perception of the consumer buying process will support the marketer's understanding consumer buying process or services thoroughly from the start point to the end of the process. It will help marketers in planning products and services. the consumer buying process is known in 6 steps as follows:

1. Problem Recognition
2. Information Search
3. Evaluation of Alternatives
4. Purchase Decision

5. Purchase
6. Post-Purchase Evaluation

As they have a close relationship with products or consumer research, marketers can develop or improve the consumer purchasing journey by instilling this mentality in it. However, it appears to be more difficult to change consumers' preexisting unfavourable views than it is to shape new ones that consumers have never encountered. Positivity at the outset is advantageous and increases customer participation. According to research by Prasad and Jha (2014), customers are more likely to be open to new ideas and information when they are met with a positive attitude from the get-go.

Review literature can present the conceptual framework as follows:

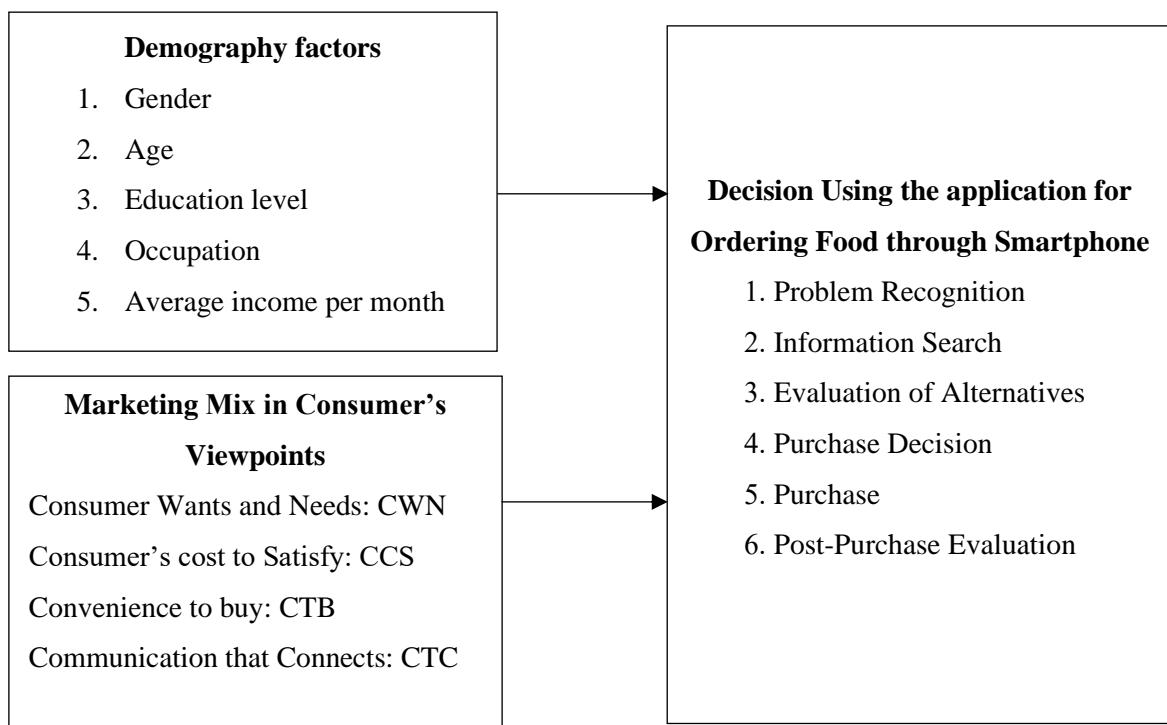


Figure 1: Concept Framework of Research

Research Methodology

Population and Sample: Because the population size was unknown, they estimated the sample size using the sample selection approach proposed by Hair, Black, Babin, and Anderson (2010). The optimal sample size for doing multivariate analysis, according to their criteria, should be at least ten times the number of indicators. As a result, the researchers used convenience sampling to acquire a sample of 313 people. The research arranged the processes as follows:

1. A questionnaire serves as the research instrument, and it is utilized to conduct data collection efficiently. The following is an outline of the steps involved in the process of developing and revising the questionnaire:

2. Examine the pertinent papers, ideas, and programs relating to the ordering of food, consumer behaviour, and research connected to design concept frameworks. Explain the meaning of the essential phrases and ideas.
3. Create a survey that addresses all of the variables that have been identified as being of interest.
4. Make sure the material is valid by getting feedback from three different experts, and make sure the questions are consistent with the variables that are being measured. To determine whether or not the material is genuine, the Index of Item-Objective Congruence can be applied.
5. Make adjustments to the questionnaire in light of the comments and suggestions made by the specialists. Check to see that each item on the questionnaire satisfies the requirements. Carry out a pilot study with the population you intend to survey using the questionnaire.
6. Collect data using the updated questionnaire, then use Cronbach's alpha coefficient to determine the reliability of the questionnaire (Cronbach, 1970: 161). Check to see that each variable has a dependability score of 0.70 or above. Conduct a thorough analysis of the data to evaluate the accuracy, validity, and level of confidence offered by the questionnaire. When seen from the point of view of the customer, the components of the marketing mix should have accuracy and validity scores in the range of 0.67 to 1.00, and their degrees of confidence should fall somewhere between 0.72 and 0.97. It is determined to be qualified if the questionnaire satisfies the standards for both the content validity and the confidence level.
7. Utilize the findings that were gathered to make any necessary adjustments and enhancements to the questionnaire to increase its capacity to collect precise data.

Data Collection Techniques: The following is how the researcher set up the data collection procedures:

1. Request consent from the sample group to distribute a questionnaire and gather data.
2. Distribute the questionnaire to a chosen number of participants to gather data, and verify that their answers are accurate. The Statistical Package for the Social Sciences is then used to analyze the data that has been obtained.
3. Apply statistical analysis to the collected data to address the study objectives and provide an answer to the research questions.

Data Analysis: In this study data analysis includes a wide range of statistical measures and procedures such as frequency, percentage, mean, standard deviation, t-test, One-way ANOVA, and the Multiple Indicators and Multiple Causes Model (MIMIC model).

Research Results: This study reports the following findings.

1. The majority of participants were female, accounting for 70.92% of the total. 34.50 percent of the total population was between the ages of 25 and 34, making this the greatest age group. A bachelor's degree was held by 65.81 percent of the population. 39.30% indicated a monthly income

between 15,001 and 25,000 Thai Baht. 36.74 percent of respondents were currently employed by the company.

2. The effect of marketing mix factors on how often people in Ratchaburi province use smartphone apps to buy food was found to be very high (mean = 4.185). Consumer Wants and Needs were found to be the most important factor (mean = 4.228), while the Consumer's Cost to Satisfy was found to be the least important factor (mean = 3.941).

Table 1 Marketing mix factors in consumer's viewpoint

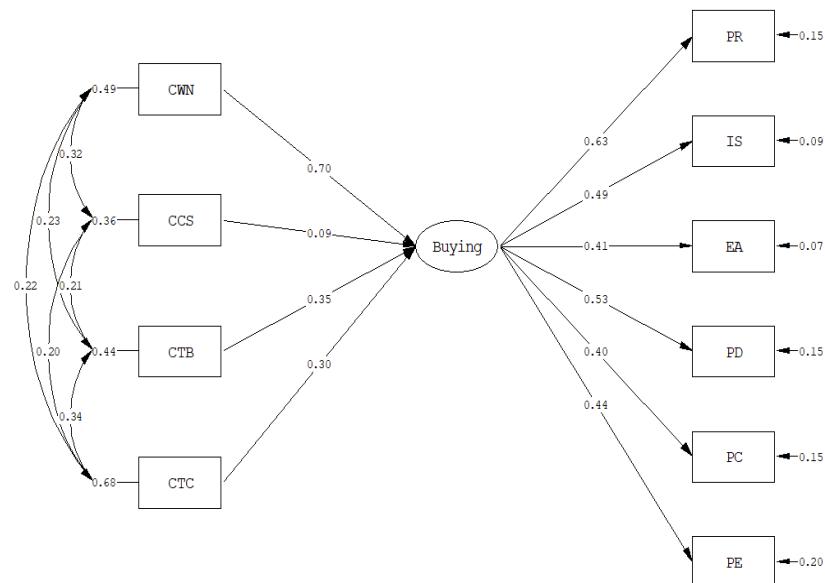
Marketing Mix Factors	Mean	S.D.	Results
1. Consumer Wants and Needs: CWN	4.228	0.757	High
2. Consumer's Cost to Satisfy: CCS	3.941	0.840	High
3. Convenience to buy: CTB	4.185	0.809	High
4. Communication that Connects: CTC	4.205	0.735	Highest
Overall	4.185	0.732	High

3. Behavior of users who use food delivery through applications in Ratchaburi province found that the mean score for their behaviour was 4.060, which indicates that it was above average. After further categorization, it was discovered that the aspect with the greatest mean rating was Purchase: PC (mean = 4.129), whereas the component with the lowest mean rating was Information Search: IS (mean = 3.917).

Table 2 Decision using the application for ordering food through smartphones

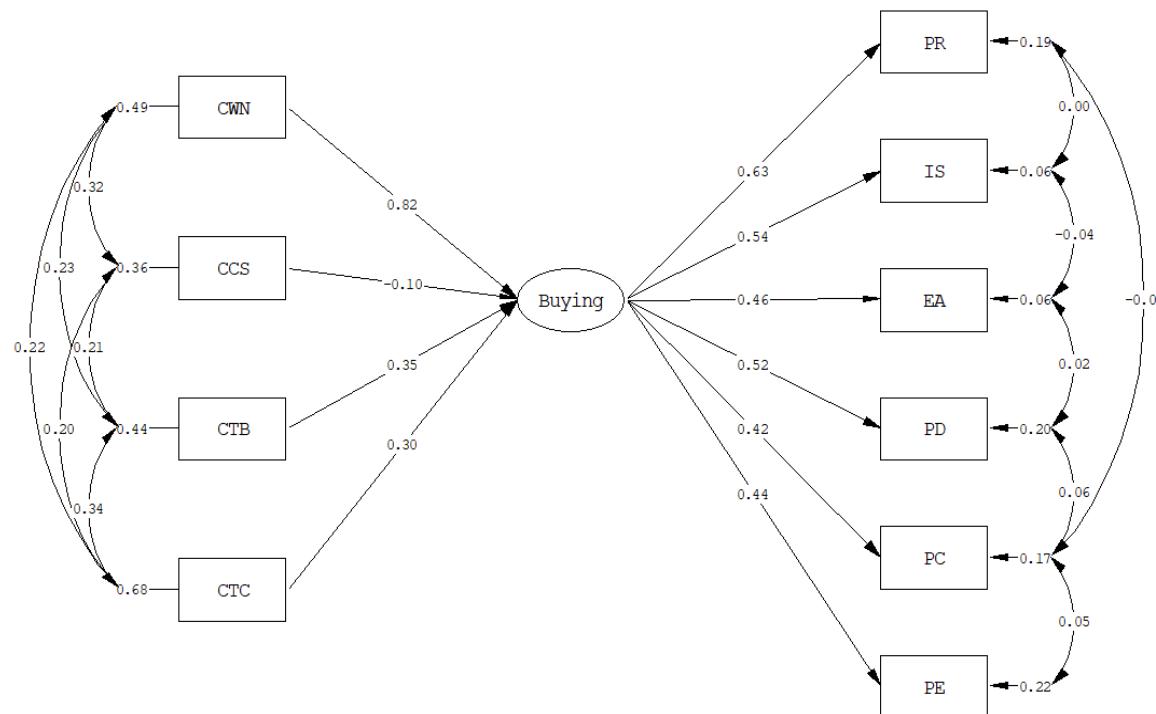
Marketing Mix Factors	Mean	S.D.	Results
1. Problem Recognition: PR	4.083	0.791	High
2. Information Search: IS	3.917	0.840	High
3. Evaluation of Alternatives: EA	4.112	0.826	High
4. Purchase Decision: PD	4.129	0.781	High
5. Purchase: PC	4.010	0.766	High
6. Post-Purchase Evaluation: PE	4.112	0.789	High
Overall	4.060	0.725	High

4. The demographic factors that influence the decision to use smartphone apps for ordering food differ by gender, age, education, and average monthly income. These variables were found to be statistically significant at the 0.05 level.



Chi-Square=220.45, df=29, P-value=0.00000, RMSEA=0.491

Figure 2: Marketing mix factors in consumer's viewpoint affecting decision using the application for ordering food through smartphones of people in Ratchaburi province (Model before adjusting)



Chi-Square=107.42, df=23, P-value=0.06112, RMSEA=0.038

Figure 3: Marketing mix factors in consumer's viewpoint affecting decision using the application for ordering food through smartphones of people in Ratchaburi province (Model after adjusting)

Table 3 Analyzing the Model's Results: Various Marketing Mix Factors Influencing Consumer Decisions in Ratchaburi Province's Smartphone Food Ordering Application

Marketing Mix in Consumer's Viewpoints	Decision using the application for ordering food through smartphone ($R^2=0.763$)		
	β	S.E.	t
1. Consumer Wants and Needs: CWN	0.82	0.064	6.349**
2. Consumer's Cost to Satisfy: CCS	0.10	0.089	2.225*
3. Convenience to buy: CTB	0.35	0.084	3.118**
4. Communication that Connects: CTC	0.30	0.070	3.025**

The decision for using the application for ordering food on smartphones of people in Ratchaburi Province was based on their perceptions of the marketing mix, which consists of Consumer Wants and Needs ($\beta = 0.82$), Convenience to buy ($\beta = 0.35$) and, Consumer's Cost to Satisfy ($\beta = 0.10$) respectively. The equation's predictive power was 28.9 percent. The weight factor brought forth by the dependent variable is shown in Table 4.

Table 4 Confirmatory factor analysis latent variable, decision using the application for ordering food through smartphones

Matrix LAMDA – Y	λ_y	t-value	R^2
1. Problem Recognition: PR	0.63	-	0.611
2. Information Search: IS	0.54	19.141	0.608
3. Evaluation of Alternatives: EA	0.46	18.582	0.555
4. Purchase Decision: PD	0.52	17.454	0.564
5. Purchase: PC	0.42	14.790	0.473
6. Post-Purchase Evaluation: PE	0.44	14.282	0.450

Decisions using the application for ordering food through smartphones consisted of Problem Recognition ($\lambda_y1 = 0.63$), Information Search ($\lambda_y2 = 0.54$), Purchase Decision ($\lambda_y4 = 0.0.52$), but the lowest factor was Purchase ($\lambda_y5 = 0.42$) respectively.

Summary and discussion

1. The decision of people in Ratchaburi province to use the smartphone application for ordering meals was influenced by a variety of demographic parameters, including gender, age, education level, and average monthly income. These factors displayed considerable fluctuations, and a significance level of 0.05 was determined to be necessary for statistical analysis. The findings are consistent with Rittiboonchai's research from 2021, which found statistically significant correlations

between gender, age, education, monthly income, and how frequently and consistently youth in Nakhon Pathom make online purchases (Rittiboonchai, 2021). These results also corroborate Laohasamphantaporn's research from 2022, which found that age was a key demographic variable impacting the choice to utilize the Food Panda app. However, there were differences seen in post-purchase behavior and information search. The cutoff point for statistical significance was 0.05.

2. Several marketing mix aspects are significant in the context of customer choice when it comes to ordering food via smartphones in Ratchaburi region. Consumer Needs and Wants, Buying Convenience, Connective Communication, and Consumer Cost to Satisfy are among these factors as viewed by customers. Three crucial steps - Problem Recognition, Information Search, and Purchase Decision - were found by a study that examined how users of food ordering apps on smartphones made decisions. These results are particularly interesting since they concur with other studies by Dhevakul (2020) on consumer decision-making for Grab Food in Bangkok and Petpradubsook (2020) on the variables affecting the behavior of customers utilizing food ordering services using smartphone applications in Bangkok. Additionally, the research conducted by Laohasamphantaporn (2022) on the impact of marketing mix variables on consumer decision-making about the Food Panda Application in Hatyai District, Songkhla Province, validates the aforementioned conclusions. Quality, services, and the marketing mix were discovered to have a substantial impact on consumer behavior in this study. In particular, the Hatyai District, Songkhla Province customers' use of the Food Panda Application was seen to be influenced by the elements of Communication that Connect, Consumer Wants and Needs, Consumer's Cost to Satisfy, and Convenience to Buy. It is advised that they make use of the gathered data and implement it into their marketing plans and service development procedures in Hatyai District, Songkhla Province, to maximize the benefits for both customers and service providers of the Food Panda application. According to Neamsri's (2017: 64) research on the decision to deploy the LINEMAN application service in Bangkok, this strategy will assure alignment with consumer wants and preferences. Neamsri discovered that, in Bangkok, promotional activities through digital media, simplicity of use, perceived benefits, and digital media commercials all had a statistically significant impact on people's decisions to use the LINEMAN application service.

Practical implications

1. Targeting the prescription of the target market should be a priority for entrepreneurs, as it enables them to effectively address consumer requirements. It is essential when offering food distribution via an application, to provide superior products and a variety of services that appeal to consumers' interests and preferences.
2. Entrepreneurs in the province of Ratchaburi should consider the marketing mix components that influence consumers' purchasing decisions when developing an application for smartphone-based food ordering. In this context, consumer wants and requirements play a central role.

Entrepreneurs face a significant challenge, however, in understanding and effectively stimulating decision-making via the application.

3. Problem recognition is a crucial aspect of the use of the application for purchasing food via smartphone. Consequently, the initial phase of the purchasing decision process entails identifying the problem.

Suggestions for further study

1. It is encouraged to research the various applications that are utilized in day-to-day living and to look into the benefits and basic aspects associated with the growth of online food distribution via smartphone applications.

2. Further research ought to concentrate on quantitative approaches, and it ought to be considered whether or not a mixed-method approach ought to be utilized to acquire findings that are exhaustive and in-depth.

3. This research has a narrow scope and will only look at samples from the province of Ratchaburi. Those who are interested in broadening the scope of the investigation have to give thought to carrying out research in a number of different provinces since the findings are likely to vary in accordance with this.

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