



**AN EMPIRICAL STUDY ON THE FACTORS INFLUENCING
THE USE INTENTION OF TAKEOUT APP -- A CASE STUDY OF
GRAB, THAILAND**

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**AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT
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This Independent Study has been approved as a Partial Fulfillment of the
Requirement of International Master of Business Administration in
International Business Management

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Date: 29 / 9 / 2023

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(Dr. Zhang Li)

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Abstract

The purpose of this article is to analyze the influencing factors of Thai Grab takeout app users, which is of great significance in improving user experience and encouraging merchants to provide better services. There were four research objectives: 1) To clarify that the basic service quality of Grab takeout app has a positive impact on customer satisfaction. 2) To verify that the value-added service quality of Grab takeout app has a positive impact on customer satisfaction. 3) To confirm that transparency mechanisms have a positive impact on customer satisfaction. 4) To identify that customers' trust in Grab takeout app service providers may affect customer satisfaction.

This article uses quantitative analysis, with value management theory, customer satisfaction theory, and service quality theory as the main theories. The subject of this study is "Grab, Thailand". By predicting users' usage intentions, it focuses on analyzing the actual problems that consumers have in the consumption process of Grab takeout APP. Then, 361 questionnaires were sampled and tested, and the validity of the data was verified through reliability and validity analysis, correlation analysis, and regression analysis. From the perspective of user intention and development of Grab Delivery APP (independent variable), analyze the impact of three variables: basic service quality, value-added service quality, transparency mechanism, and customer trust in Grab Delivery APP service providers To verify if there is an impact on customer satisfaction (dependent variable). The results are as follows: The regression coefficient value of perceived risk was 0.367 ($t=5.299$, $P=0.000<0.01$), indicating that perceived risk significantly positively influenced willingness to use. The regression coefficient value of social influence is 0.452 ($t=6.063$, $P=0.000<0.01$), which means that social influence has a significant positive influence on willingness to use. The regression coefficient value of the promoting factors was -0.016 ($t=-0.199$, $P=0.842>0.05$), which meant that the promoting factors did not influence the willingness to use. The regression

coefficient value of effort expectation is 0.057($t=0.767$, $P=0.444>0.05$), which means that effort expectation does not influence willingness to use, and the lower the value is, the stronger the willingness to use. The regression coefficient value of performance expectation is 0.143($t=2.128$, $P=0.035<0.05$), meaning that performance expectation significantly influences use intention. Summary analysis shows that perceived risk, social impact and performance expectation significantly influence use intention. The objective was to help the platform can improve the service quality of businesses, raise customers' shopping experience, and enhance users' willingness to consume.

Keywords: product factors, Thailand Grab takeout APP, social impact, performance expectations, promotion conditions



Acknowledgments

For me, this topic combines my personal interest and focuses on the theoretical research direction I care about, which is worthy of in-depth research.

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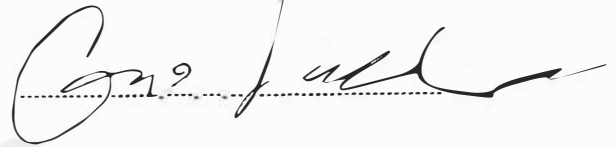
Finally, I would like to thank the judges and previous researchers for their great help in my research.

Guo Jiawei



Declaration

I, Guo Jiawei, hereby certify that the work embodied in this independent study entitled "An Empirical Study on the Factors Influencing the Use Intention of Takeout APP -- A Case Study of Grab, Thailand" is result of original research and has not been submitted for a higher degree to any other university or institution.



(Guo Jiawei)

May, 29, 2023



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Chapter 1 INTRODUCTION

This article takes Grab's takeaway app as the research object, and attempts to construct a more realistic, objective, effective, and complete model of mobile consumer impact factors in the online food distribution field based on Set Structure Equation Model (SEM). Secondly, this article takes online delivery users of Grab Food Delivery App as the object, and through empirical research and data analysis, finds out the attitudes that affect users' continued use of online delivery, as well as customer satisfaction caused by product satisfaction and service satisfaction, as well as the interaction between these factors and their respective impact degree. Combining questionnaire and quantitative analysis (Verma, 2020). Based on the empirical results, some practical suggestions and marketing strategies are proposed. This will help Grab Meal Delivery App and catering merchants better understand user needs, thereby providing users with better online meal delivery and dining services, and contributing to the better development of the online meal delivery industry.

1.1 Background of the Study

In recent years, with the development of the Internet and the rapid development of the online meal delivery industry, it has become an important reason for the growth of catering consumption. The scale of the online food delivery industry is also expanding, and the diversification of categories and scenarios has become the fundamental reason for improving the business income of the online food delivery industry. According to foreign media reports, due to the epidemic, the four major express delivery platforms Grab Hub, Door Dash, Post Mates, and Uber Eats experienced explosive growth in 2020 (Limsarun et al, 2021). According to MW's data, the total amount of online food distribution in Southeast Asia increased by 183% from \$4.2 billion to \$11.9 billion in 2020. Among them, Grab Hub has a market share of up to 50%, but the delivery cost per order is as high as 10% - 40% (Subhani, 2022). In April 2020, Grab Hub was hit by an antitrust class action lawsuit in the United States.

Developed countries, especially the United States, have an early start and rapid development in online ordering, with more complete basic research and management experience. The theoretical system construction is also relatively more complete, both in terms of online ordering and marketing theory, compared to China, which is more advanced (Altinay & Arici, 2022). In terms of O2O takeout, compared to China, the United States also started earlier. Next, we will take Grab, an O2O takeout company in the United States, as a sample to analyze the development status of O2O takeout companies in the United States and the market related theories used during their development.

Grab is the largest online delivery platform in the United States. Since 2011, its revenue scale has continued to grow. After the merger of Grab and Seamless, its revenue performance has been particularly prominent. In 2013, Grab's annual revenue reached 140 million US dollars; The revenue in the first half of 2014 has exceeded the

total revenue in 2012, reaching \$120 million (see Figure 1-1 on the next page).

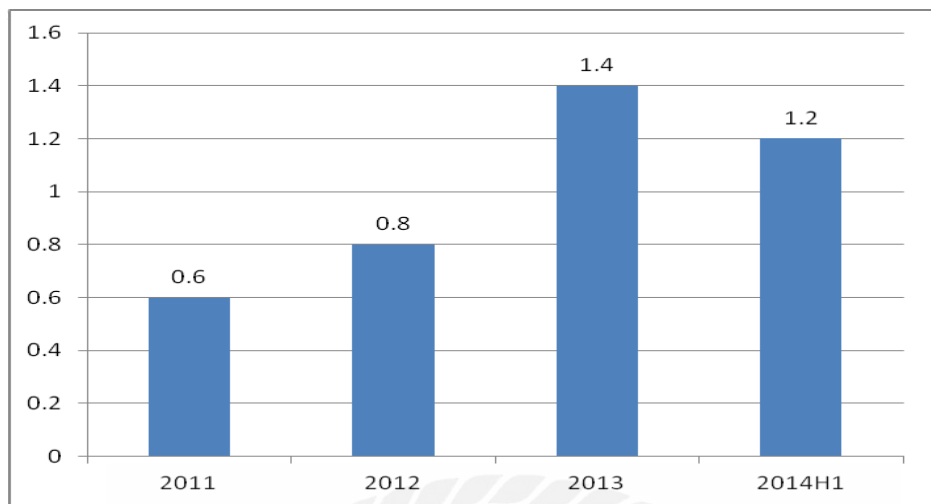


Figure1-1 2011-2014 Grab Revenue scale

Note: The 2013 data includes aggregated data since the merger of Grab and Seamless in August 2013

Source: Financial information from Grab.

To date, Grab's service coverage has exceeded 700 cities in the United States, with an online ordering platform serving approximately 30000 restaurants. In 2015, Grab brought more than 1.8 billion US dollars in sales to local restaurants, with an average daily order volume of 174000 and an active user population of approximately 4.19 million. More than 40% of orders were made through mobile devices (Chotigo & Kadono, 2021).

Grab's success can provide experience for Chinese O2O takeout companies in some aspects:

1. In the early stage, it quickly entered the market with differentiated positioning and innovative business models.
2. Focusing on improving the efficiency of catering enterprises and helping them solve informatization problems.

Emphasize technical investment, provide more efficient solutions for restaurants through continuous technological innovation, and provide users with a better ordering experience, enhancing the stickiness between customers and users.

3. Expand their service capabilities through rapid mergers, acquisitions, and integration

In recent years, Grab has conducted multiple mergers and acquisitions with sufficient funds, including the merger with Seamless in 2013; In 2011, Grab and Seamless acquired, achieving business consolidation across regions, technical means, and across business systems, and across user groups. Although Grab has developed rapidly in the United States, the overall development of the United States' O2O industry is different from that of China. It is not a blowout like the development of China's O2O industry. The O2O industry in the United States is mainly dominated by traditional retailers, with a small gap between traditional e-commerce and the Internet in the

United States. Many e-commerce giants themselves are traditional retail enterprises. Moreover, due to the small population in the United States, network operation costs and relatively high labour costs have to a certain extent constrained the development of O2O e-commerce in the United States.

1.2 Research Problem

As restaurants look to maintain prevention practices and find a new “normal” during the Pandemic, food delivery will most likely become a staple for restaurants in the future. Restaurants will need to continually rely on and work with third-party FDAs (Lu et al, 2020). At the same time, San and Dastane (2021) have also paid more attention to the research of their own target market positioning strategies, especially for the market positioning strategies that occupy their core content and have been continuously implemented in business practice, in a recent 2019 survey conducted by restaurantowner.com, 31% of the 993 respondents stated that they exclusively used third-party FDAs to manage all of their food deliveries (Danis, 2020). Even as the restaurant business starts to normalize post-pandemic, third-party FDAs provide another way for restaurants to increase revenue, especially for those customers who may be concerned about dining in close indoor spaces for the foreseeable future.

The research question for this study concerned factors affecting consumer behavioral intention of online food ordering in Thailand. Whoever first discovers new market gaps or market segmentation opportunities, finds market positions that have not yet been occupied and are valued by customers, selects clear target markets, and then assists with effective differential marketing combinations can seize the opportunity to meet customer needs, ultimately improving the market competitiveness of their products, and improving their business performance.

1.3 Questions of the Study

Positioning is the act of designing the company's product offerings and image, so that it can occupy a unique position in the minds of target customers (Verma, 2020). Therefore, based on the above facts, this study aims to study four problems.

1. What is promote the basic service quality of Grab's takeout app to have a positive impact on customer satisfaction?

2. What is promote the value-added service quality of Grab's takeaway app to have a positive impact on customer satisfaction?

3. What is promote transparency mechanisms has a positive impact on customer satisfaction?

4. What is promote customer trust in Grab takeout app service providers has a positive impact on customer satisfaction?

1.4 Objectives of the Study

In this study, user satisfaction refers to a comprehensive evaluation of the satisfaction of users after using the mobile takeaway app to order takeaway. Zhao et al (2014) summarized habits, subjective norms, and conversion costs as contributing

factors when studying the influencing factors of users' willingness to continue using rebate websites. This study draws on this classification basis.

Specifically, the research objectives are:

1. To clarify that the basic service quality of Grab takeout app has a positive impact on customer satisfaction.
2. To verify that the value-added service quality of Grab takeout app has a positive impact on customer satisfaction.
3. To confirm that transparency mechanisms have a positive impact on customer satisfaction.
4. To identify that customers' trust in Grab takeout app service providers may affect customer satisfaction.

1.5 Significant of the Study

Based on the above background, this paper combined with the academic research results, to draw a practical conclusion. In the current work, with the rapid development of the Internet, the takeout industry has also ushered in a rapid development, and the takeout APP has become an important force in the takeout industry (Altinay & Arici, 2022). This study provides a certain reference for the subsequent study on the use intention of takeout APP. Therefore, this paper will elaborate on the research significance of this paper from both theoretical and practical aspects.

1.5.1 Theoretical significance

Theoretically, the study of use intention mainly focuses on the definition of use intention, the influencing factors and the mechanism of influence. Studies have shown that since consumers often use a product as a means to meet needs and solve problems rather than purposes, they do little to make consumers use the product. In this context, most of the existing studies focus on assessing consumer behavior by collecting data, such as questionnaires, consumer behaviour analysis, consumer behaviour analysis, user experience testing and online questionnaires. Although there have been studies on user intentions, they have focused on the influence of individual factors on user intentions or their indirect effects on user attitudes (Chotigo & Kadono, 2021). The value management theory, information processing theory, service quality theory and other related theories are gradually widely accepted and applied in the user behaviour, and people pay more and more attention to the concept of user intention. An important factor associated with technology acceptance is the preparation done when people take some action in order to achieve their goals. The literature uses many different methods to evaluate and predict the user's use intention. One of them, called "perceived easy to use, " treats everything the user does in daily life as "easy to use, " including information processing, communication, etc. This paper will be from this perspective, using the structural equation model to analyze the product information feedback on the use of intention, to improve the existing research further "easy to use" definition, influencing factors and mechanism of relevant literature. After all, the literature is not mature, the article is a minority.

1.5.2 Practical significance

Thailand delivery industry became the first Asian delivery industry power, delivery market in 2016, 20 billion baht, and expected by 2018 the number will grow to 35 billion baht (RMB 10 billion); the domestic delivery market has become one of the largest consumer markets, sell the APP platform at home and abroad have Meituan, hungry yao, Grab APP glutinous rice, but the development is relatively slow (Lu et al, 2020). Thailand is a major tourist country in Southeast Asia, with about a quarter of the number of global tourists. Thailand has a large population and a high per capita consumption level (about 800 baht per person). The Thai market is Southeast Asia's largest delivery service provider of online restaurants. Most people living and working in Thailand use the takeout APP for food ordering and delivery services; more than half use food ordering and delivery services via online payment methods such as Alipay and WeChat. Due to the large number of relatively mature Thai food delivery APP platforms and merchants, the competition is fierce. Therefore, it is significant to study the influencing factors of Thai takeout APP users to improve user experience and encourage merchants to provide better services. This study takes Grab, the largest e-commerce platform in Southeast Asia, as an example to conduct an empirical study on the influencing factors of Grab user use intention. In this study, the data were collected by questionnaire, and the factors affecting users' intentions were analyzed through the structural equation model. Meanwhile, comparing the differences between Grab and China, the correlation between the environment and the intention of Grab APP was found.

1.6 Limitation of the Study

The sample number is small. The study samples are representative samples selected from each takeout APP.

Analysis dimensions and indicators are too single. According to the existing research, the factors influencing the use of intention include six dimensions: technology acceptance, advertising, attitude, satisfaction, perceived risk, and product information feedback. Only four factors were selected as variables with few analysis dimensions and indicators.

The theoretical model is not perfect enough. The model used in this study is a four-element model, but due to the many and miscellaneous takeout APP, there is no four-element model, which needs to be improved in the future.

The data collection methods are limited. The data used in this study are all from the filling data of registered users in each takeout APP, so there are some non-standard and undeleted problems in the questionnaire collection process.

Users do not know well about Grab. Since only a few metrics in Grab are analyzed in this paper, users have less knowledge of Grab.

The influencing factors of the use intention are different from the actual use experience. Since this survey is only for the Thai market, it is unclear whether it will be applicable to other countries, which will be the subsequent focus of researchers (Lu et al, 2020).

The model fitting effect is not good, and it needs to be optimized and improved. In order to further improve the research value and practical significance of the structural equation model analysis in this paper, the author believes that: 1) the research on the domestic use value and usage scenarios of structural equation model analysis; 2) the scope of application of the law of structural equation model analysis; 3) the research on data processing methods; 4) the combination of theory and practice and empirical research and practical investigation; 5) the problems in the use process and improvement suggestions.



Chapter 2 LITERATURE REVIEW

2.1 Introduction

With the continuous development of the world economy, the Internet technology and security are becoming increasingly mature and perfect, and the number of network users continue to rise. Accordingly, the number of consumers who choose online shopping is gradually increasing. With its product and service quality advantages, the takeout APP has rapidly increased its proportion in the online shopping market. It has gradually become an important driving force in the online shopping industry. In the face of increasingly expanding customer groups, takeout APP enterprises will also usher new opportunities for change (Subhani, 2022). With the development of the economy, the online shopping demand of customers who choose online shopping shows a diversified development trend, and the simple price advantage cannot meet the increasing online shopping demand of customers. Online customer size and online demand diversification of foreign sell APP enterprises put forward new requirements and challenges; take-out APP enterprises, to win the electricity market challenges in the new electricity pattern in the evolution of higher industry status, must be able to meet the diversified customer demand, new network transaction form this requires take-out APP enterprise service quality as a breakthrough point for the development, improve the level of service quality and improve the quality of service competitiveness (Altinay & Arici, 2022). Therefore, this chapter provides an overview of the relevant concepts of the current background to explain the new perspective of customer satisfaction and conducts a literature search through the Internet, making full use of the content and ideas of the relevant literature and obtaining rich theoretical support. Collect online through CNKI, Google Academic, researchgate and other resource sites. Offline mainly through the university library, Siam University library and other data collection, as well as the above online search for all kinds of relevant materials, the collected data is carefully sorted and classified, which is conducive to the writing of the paper. This chapter explains the analysis from a new perspective of customer satisfaction by providing an overview of relevant concepts and defining the current background of this research, and carries out literature retrieval through the Internet, making full use of the content and ideas of relevant literature to obtain rich theoretical support.

2.2 Literature Reviews

Service quality

Since the early 1980s, service quality has become the focus of research. Rabaa'i (2022) defined service quality as the degree to which service results can meet the preset ideal value, which verified that service quality includes service results and service delivery methods, both of which are indispensable, and pointed out that service quality consists of three parts: process quality, result quality and personnel quality. Muangmee et al (2021) have all demonstrated that perceived usefulness is an important influencing variable for predicting the acceptance of e-commerce models. It significantly impacts e-commerce usage attitudes, intentions, and even behaviour. "Perceived usefulness and

perceived ease of use are studied as influencing factors of consumer willingness to use in e-commerce, but some scholars have only extracted the factor of perceived usefulness.". Wu (2021), a representative of the Nordic School, pointed out that service quality is mainly based on customer perception, including two aspects: functional quality and technical quality; Functional quality refers to the perceived service level in the process of enjoying services. Jeong et al (2022) believed that the majority of consumers are women, and online word of mouth will positively impact the perceived usefulness and purchase intention of female consumers. Wang et al (2021) studied the influencing factors of whether consumers will consume online based on the current online retail situation and found that when consumers have high trust in online shopping, their potential purchase intention will be affected. The research results show that female consumers have strongly perceived usefulness for objective, pictorial, and negative online word-of-mouth, and the perceived usefulness of online word-of-mouth significantly affects their purchase intentions. At the same time, product types have a significant moderating effect on online word-of-mouth attributes.

Performance expectancy

Performance expectancy under the UTAUT model involves the user's belief that the technology will improve performance in particular activities. The performance expectancy can therefore be used to determine the user's likeliness to adopt new technology (Chaiyasoonthorn et al, 2019). Thus, using the performance expectancy concept to determine users' acceptance intention to FDAs indicates greater intentions. Through analysis, consumers' perceived usefulness of reviews is used to understand the relationship between reviews and purchase intention. College students are used as research objects to analyze perceived usefulness as an intermediary variable. According to CNNIC's 44th Statistical Report on Internet Development in China, Wei et al (2021) found that the overall proportion of online names exceeds half, making it particularly important to study their purchasing behaviour. The research results indicate that the higher the level of online evaluation, the impact will be on consumers' perceived usefulness.

Yang (2019) pointed out in a study that it is necessary to establish a sense of trust between sellers and consumers in online transactions to improve the reputation and reputation of the store to a certain extent, and consumers will also purchase again due to trust. Rosário and Raimundo (2021) are studying the consumption pattern in the current industrial economy, which is collaborative consumption based on the Internet, while consumers' senators are based on values and trust. Moreover, create new trading methods based on online communities, and demonstrate that consumers with different value orientations will have an accepting attitude and participation in online community takeout. The most important factor in collaborative consumption is trust. When consumers trust other customers on the collaborative consumption platform, they create a behaviour of co-consumption. When consumers' willingness to purchase online decreases, consumers' trust will also decrease.

Based on the above literature review, this article will focus on customer satisfaction as the main purpose and assist Grab's takeaway app in conducting continuous interaction and dialogue in business model innovation through improving

service quality to output what value and service ultimately. Conduct a comprehensive and systematic discussion to supplement relevant theories and promote their smooth development.

2.3 Theory of Reviews

2.3.1 Value Management Theory

Value Management, also known as Value Based Management (VBM), is a value based approach to enterprise management (usually referred to as maximizing shareholder value). It refers to the widespread application of management behavior to enterprises. According to the company's vision, the company has established a series of values that are compatible with the vision and company culture, and implemented them into the daily work of employees. Jiang and Cai (2021) once mentioned that the advantage of value management is that it not only inherits the company's vision, but also establishes employee codes and work beliefs. Through communication at different levels, organizations, groups, and individuals can form a common belief in their goals, thereby improving the quality of life, satisfaction, providing high-quality customer service, maintaining organizational competition, and long-term career achievements of their members.

2.3.2 Customer satisfaction theory

Many previous studies have confirmed a close relationship between consumer online shopping behaviour and satisfaction, and consumer use of online shopping is also related to satisfaction. A study conducted by Zhang et al (2020) found that the influencing factors of consumer satisfaction, mainly from the value dimensions of product value and service, can improve consumer satisfaction. Devita et al (2021) explored the relationship between expectations, satisfaction, and visitor loyalty. During the shopping process, consumers have certain expectations for products and services. When the expectations reach a certain value, consumers' satisfaction with the product is high, and their brand recognition will also increase. San and Dastane (2021) explored the relationship between perceived value, satisfaction, and loyalty and further adjusted their perceived value to improve consumer satisfaction and loyalty. While improving consumer satisfaction, they also attracted consumers to buy again, stabilising them.

Through takeout, the price and quantity of products can be controlled, and there may be discounts on the prices of group shopping, or freight and miscellaneous fees can be reduced. Lee et al (2019) believe that community takeout mainly aims to meet consumers' needs at a lower price. This monetary advantage is the main motivation for buyers to participate. Okiyi et al (2020) explored the relationship between user satisfaction and user perceived value. The research results show that perceived value positively impacts user satisfaction and positively affects user behaviour mediated by user satisfaction. Especially for online shopping on overseas platforms, community takeout can save express shipping costs to a certain extent and meet consumer shopping needs. Ramzi et al (2022) studied the relationship between the duration of takeout information and price discounts, starting with consumers' willingness to consume and combining takeout decisions to summarize consumers' purchasing behaviour.

2.3.3 Service quality theory

According to Ramseook-Munhurrun and Nundlall(2013), sales based on online platforms require attention to service quality,if online sales fail, this is due to the poor quality of services provided to consumers,online customers expect fast, friendly, and high-quality services. For online consumers, a high level of service quality needs to be valued during the use of the Internet because it is a means to leverage the potential benefits of the Internet (Zhu et al, 2020). Therefore, many practitioners and scholars of online shopping have recently focused on service quality to attract potential customers and how to retain existing customers.

In order to enable consumers to fully shop online and improve their experience perception, it is necessary to improve service quality to a certain extent. Wu (2021) believed that the degree of consumer participation is linked to service quality, so it is recommended to continuously improve service quality, strengthen relationships with consumers, and improve customer participation, so as to establish a good relationship with consumers and further increase repurchase behavior. Yu et al (2022), it is particularly interesting and important for academics and professionals, especially in the field of e-commerce, to analyze customer evaluations of online purchases. In this study, through consumer feedback on the use of takeaway apps, we explored the factors influencing takeaway app users' intentions from two aspects: technical acceptance and product information feedback.Technical acceptance refers to whether the user's experience with the products, services, and other system functions of their platform meets expectations.

2.4 Research Relevant

After sorting out relevant literature and theories, related past research are sorted and summarized. Scholars believe that, along with the development of the take-out e-commerce industry, on the one hand, the popularity of take-out e-commerce accelerates the competition for new product research and development of the industry; on the other hand, the increase of take-out e-commerce platforms makes consumers' choices more diversified. This makes express logistics companies pay more and more attention to its implementation and implementation (Atkinson,2008). Market segmentation is to screen the target market and accurately position it. It is an effective method, and it is an effective method. Market division is the premise of market positioning, and market division is the target market selection, which is ultimately the most important step. Only in this way the target marketing can be achieved, thus improving the company's operating performance and enhancing the company's competitiveness. Banerjee and Choudhuri (2010) point out that translating costs into costs will create significant user difficulties. When consumers are not satisfied with the existing service providers or commodities, they often choose to use the existing service providers or commodities due to their own economic and social benefits or spiritual pressure.

The so-called difference is in a particular field, trying to make themselves different from other fields. The distinction manifests itself in two distinct areas.

Among them, "entity" usually refers to a series of content centered on "product design and production, delivery system and promotion activities" (Chaiyasoonthorn et al.,2019). In the early days of the express industry, express companies did not focus on similar products. All consumers remember is the "full price offer" and the "red envelope" that looks better and cheaper.

Although Grab APP's marketing strategy differs from that of other delivery companies, Grab APP's marketing strategy distinguishes its business from other delivery companies, enabling it to focus on white-collar delivery (Altinay& Arici,2022). Compared with the rough and cheap student market, Grab is moving in a more sophisticated direction, sharpening its strengths in target market, delivery, merchants and platform, focusing on white-collar workers and differentiating the local market with services that differ from other delivery companies. Therefore, this paper focuses on the two levels of value and quality to select three levels of value management: customer satisfaction and service quality.

2.5 Conceptual Framework

This article mainly adopts Literature research method, Questionnaire survey method and Quantitative research method. When UTAUT model is used to analyze users' willingness to continue using, relevant factors should also be combined for analysis, which should be taken as variables, and corresponding UTAUT model should be established (Bao & Zhu, 2021). And the relationship among the final determined factors is shown in Figure 2-1:

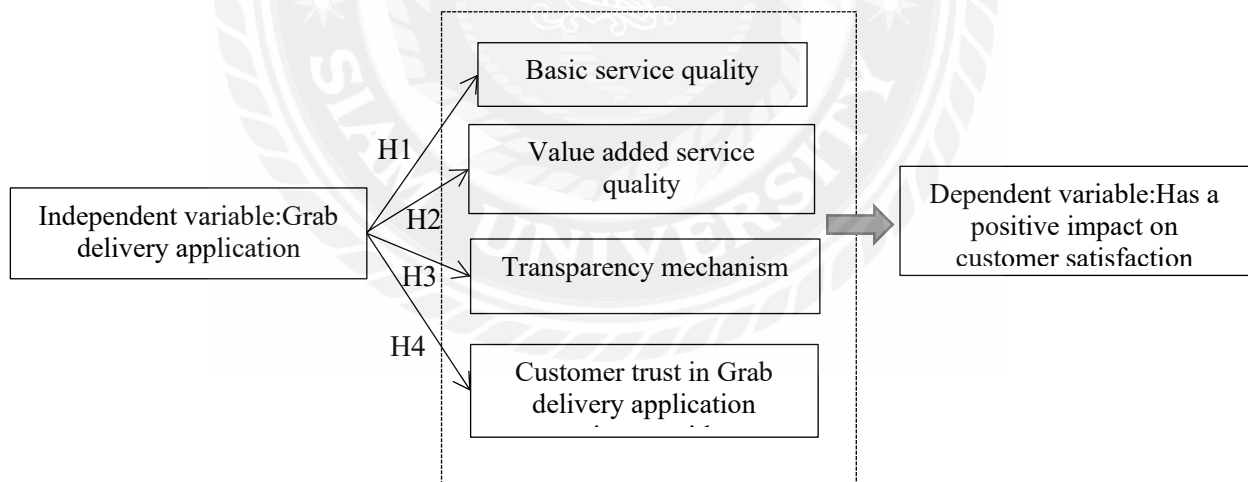


FIGURE 2-1 Technical circuit diagram

Independent variables: basic service quality, value-added service quality, transparent mechanism, and the trust of Grab delivery app service providers have a positive impact on the dependent variable: customer satisfaction.

2.6 Terms and Definition Used in This Study

Product factors: The quality of online food distribution products usually consist of discount intensity, product image, and product evaluation (Todd et al, 2005). The above

factors will directly affect the users' performance expectations when they purchase the product.

Quality and brand image: Quality and brand image are the main image characteristics of online food distribution products, and they are the primary consideration for consumers to buy products (Altinay & Arici, 2022). The higher the brand awareness and recognition of online food distribution products in the market, the more guaranteed the quality will be and the higher the quality of users' service to the brand (Devita et al, 2021). The satisfaction degree of consumers with the product is directly related to the expected performance level of users for online food delivery services when purchasing online food delivery products. The business or brand is more attractive if a well-known company brand or corporate brand rather than a small brand or a small product (Lv et al, 2021).

Performance Expectations: the degree to which a person believes that using services helps him or her receive performance benefits at work. It is driven by perceived validity, comparative advantage, external motivation, job suitability, and outcome expectation (Limsarun et al, 2021). During online food delivery, the user has high expectations if he thinks his expectations exceed them; low expectations if he sees no current use. Some factors have a greater impact on user behaviour and some have less (Abbasi et al, 2018). Product and service are also a kind of service on user perception, including three aspects: product, service and environment. Products include function, price, convenience, etc.; services include pre-sale, after-sale service, etc. Environment refers to consumers' perception, evaluation, and trust of online food delivery platforms.

Hard expectation: In online delivery, users believe that the lower their effort, the higher the effort, the higher the effort (Acharya et al, 2013). **Perceived risk:** Perceived risk is the subjective expectation of the damage condition. The more confident consumers are in losses, the higher the cognitive risk (Baiju et al, 2022). This paper believes that when consumers buy, they need to predict the possible risks to determine the correctness of their purchasing behaviour and make decisions accordingly. **Promotion conditions:** the support available to the user in the current situation. **Convenience condition** refers to mobile Internet technology.

Chapter 3 Research Methodology

3.1 Introduction

This study is mainly based on quantitative analysis, focusing on consumers' practical problems in the gram takeout APP's consumption process. In the design process, in addition to considering the theoretical basis of reference, but also should refer to the relevant e-commerce, their own practical experience. Making the questionnaire design more reasonable also makes this study more practical (Limsarun et al, 2021). In addition, in order to meet the research purpose, the reliability and validity of the questionnaire must be tested. After the design of the questionnaire, a small range of tests must be conducted, and it can be adjusted after passing the test. In addition, this paper mainly adopts the structural equation model to analyze the influence degree of each influencing factor of the structural equation model on the intention of use to provide corresponding suggestions for takeout APP users. The first step is to determine the index's specific meaning and numerical value; the second step is the structural equation analysis to determine the relationship between each influencing factor and the intention; In the third step, parameters for each variable were calculated and the variables by SPSS statistical software. The fourth step uses the questionnaire survey as the source of data collection. The fifth step is for the statistical analysis of the collected data. The sixth step is to test the reliability and validity of the data, and to modify the model; Step 7: Calculate the correlation between each variable through the SPSS software; The eighth step is used for the regression. The relationship between use intentions and user satisfaction is discussed based on the results. Finally, on this basis, the corresponding policy suggestions are put forward to improve the user's use intention.

This article mainly adopts Comparative analysis method and Quantitative research method.

Comparative analysis method

Facing the increasingly expanding customer group, takeout APP enterprises will also welcome new opportunities for change. With the development of economy, the online shopping demand of customers who choose online shopping presents a diversified development trend, and simple price advantage can no longer meet the growing online shopping demand of customers (Chaiyasoonthorn et al, 2019). After obtaining the overall data through a questionnaire survey, conduct multi-stage random sampling, and conduct data reprocessing and comparative analysis. The growth of online shopping customer group and the diversification of online shopping demand have put forward new requirements and challenges for takeout APP enterprises. Suppose takeout APP enterprises want to win the new challenges raised by the e-commerce market and gain a high industrial position in the evolution of the new e-commerce pattern. In that case, they must be able to meet the diversified needs of customers under the new online trading pattern, which will inevitably require takeout APP enterprises to take service quality as the starting point for development, improve the level of service quality, and then improve the competitiveness of service quality.

Quantitative research method

Using quantitative research methods, through combining the value management theory, service quality theory and other related theories, this study summarized the relevant factors that affect the use of Grab takeout APP. At the same time, combined with the characteristics of mobile takeout APP (Bao & Zhu, 2021). Based on the information system continuous use theory, expectation confirmation theory and other related theories, and the analysis of previous related research results, this paper will summarize the influencing factors of users' continuous use intention according to the characteristics of Grab takeout APP itself and its users, and build the influencing factor model of Grab takeout APP use in this study. The contributing factors are also divided into habits, subjective norms and switching costs on the basis of drawing on previous research results and combining the characteristics of mobile takeout APP itself and its users.

3.2 Research Design

3.2.1 Collection of the basic service quality of the takeout APP

The relevant information about the basic service quality of the takeout APP is shown in the following table:

Basic service quality	Send on time
	Customer service is flexible
	The takeaway package is good and no damaged
	Delivery is accurate
	No lost delivery (takeaway)
	Receipt reminder
	The receipt process is complete

Figure 3-1 Basic service quality

3.2.2 Construction of a theoretical model influencing the use of Grab takeout APP

How consumers order food using mobile phones has similar features and differences to online shopping. What they have in common is that consumers have two different identities. They are both Internet (mobile phone) users and buyers of goods/services. Users of mobile food delivery apps are also consumers. Therefore, in the mobile food delivery APP, in addition to the information system, the merchants who join the APP and the goods and services they provide also have an impact on the mobile food delivery APP. In addition, as mobile food delivery apps are information services developed on the basis of mobile Internet, their users have different intentions to continue using information services. Therefore, it is difficult to fully explain the behavioral rules of the continuous use pattern of traditional information system users.

After analyzing the value management theory, service quality theory and other relevant theories, this paper summarizes the factors affecting the use of Grab takeout app, which can be divided into four aspects: user perceived performance, user satisfaction, expectation confirmation and influencing factors. The user's perceived

performance includes the user's perceived efficiency, user's perceived convenience, user's perceived quality and the user's perceived cost performance. From the perspective of the characteristics of mobile food delivery apps, the quality of users can be divided into four levels: information quality, system quality, platform service quality, and merchant product and service quality (Chaiyasoonthorn et al.,2019). According to the previous research results and the characteristics of mobile food delivery apps and users, the influencing factors are divided into habits, subjective norms and conversion costs.

On this basis, based on the theory of continuous use of information system, expectation confirmation theory and other relevant theories, and related to the characteristics of Grab takeout app itself and users, the impact factors on the continuous use of Grab Takeout app are summarized. This study establishes the impact factor model for using the Grab Takeout app. Therefore, this research model includes two types of variables:

(1) Independent variables: expectation confirmation, influencing factors (this study consists of habits, switching cost and subjective norms), the perceived performance of mobile takeout app users (this study consists of perceived usefulness, perceived convenience, perceived quality and perceived price advantage);

(2) Dependent variable: users' willingness to continue using.

3.3 Hypothesis

Assumptions are as follows:

H1: The basic service quality of grab takeout apps has a positive impact on customer satisfaction.

H2: The value-added service quality of the Grab takeout app has a positive impact on customer satisfaction.

H3: Transparency has a positive impact on customer satisfaction.

H4: Customer trust in Grab takeout app service providers has a positive impact on customer satisfaction.

3.4 Population and Sampling

This study mainly uses subjective data on consumers' willingness to use Grab's takeaway app as the basic research data, so it is necessary to collect the data through questionnaire surveys. In the design process of the questionnaire, this study followed the following principles (Chotigo & Kadono, 2021). At the beginning of the questionnaire design, the author repeatedly translated the items in the questionnaire, checked and corrected the errors in the questionnaire used in this study, and tested and corrected the question setting and validity of the questionnaire. Number of samples in this study $n=35000000/[1+35000000 (0.05)^2]= 399.999543$.Consequently, the sample size comes to 400 respondents.

3.5 Sample Size

The number of samples is related to the purpose of the study. In addition, it must

meet research methodology and statistical requirements. Based on value management and service quality, this study investigated consumers' perceived usefulness, ease of use, satisfaction, willingness to consume, and trust. In the existing research on structural equation theory, different scholars have different views on the number of samples required for research. Altuntas et al (2011) believe the sample size is at least 5 times the estimated parameter. Otherwise, the missing data is at least 10 times. Ali et al (2019) believed that the ratio of observation variables to sample size should be 1:10-1:15; A sample size between 200 and 400 is appropriate. Based on research needs and the number of samples used in mainstream research, this study plans to collect at least 300 valid survey subjects. Lim et al (2021) believed that at least 200 were sufficient and satisfactory in scanning electron microscope analysis. Different interviewees have certain differences in their subjective evaluations. Theoretically, the more samples, the more reliable the conclusion. Secondly, when using structural equation models to estimate and interpret variables, the sample size has a certain impact on the final result. Therefore, after two weeks of collection, 361 questionnaires were obtained, and the research in this article is mainly based on these 361 data.

3.6 Data Collection

The main data of this study were collected through online questionnaires. Online surveys can elicit a positive response from respondents, as tourists in China tend to obtain information online (Chotigo & Kadono, 2021). In addition, online questionnaires save time and reach more people. This Chinese survey is posted on the free online survey website commonly used in China <https://www.wjx.cn/>. Then, the questionnaire link is sent through WeChat and QQ, which are popular applications in China. The research in this article focuses on the factors that residents of Grab, Thailand, who currently have experience in purchasing takeout products, believe will affect their continued use of the takeout app and their degree of relevance. Therefore, this article selects students from BANGWA as the research object.

3.7 Data Analysis

Ram et al. (2019) showed that users' behavioural habits would significantly impact their persistent behavior. The change of market environment, the change of customer excitement, and the change of competitors will bring great impact to the targeted market of new products. In this study, SPSS 25.0 statistical analysis software was used as data analysis tool, and Likert 1-5 scoring method was used for quantitative analysis:

"1" means "totally disagree" or "very unimportant"

"2" means "disagree" or "not important"

"3" means "average"

"4" means "agree" or "important"

"5" means "strongly agree" or "very important"

3.8 Reliability analysis of the scale

Reliability analysis is an effective analytical method to detect whether the data are

reliable and stable. The reliability coefficient method is used for testing (Lu et al, 2020). The reliability coefficient is the most commonly used reliability coefficient, and its formula is:

$$\alpha = (k / (k - 1)) * (1 - (\sum Si^2) / ST^2)。$$

Where K is the total number of items in the scale, the within-question variance of the score in question i, and the variance of the total score of all items. It can be seen from the formula that the coefficient evaluates the consistency between the scores of each item in the scale, which belongs to the internal consistency coefficient. This method is suitable for the reliability analysis of the attitude and opinion questionnaire (scale). The reliability coefficient of the total scale should be above 0.8 and 0.7 and 0.8 acceptable; the reliability coefficient of the subscale should be above 0.7 and 0.6~0.7. acceptable. Cronbach alpha If the coefficient is below 0.6, consider recompiling the questionnaire, The specific analysis is shown in Table Table 3-1 below.

TABLE 3-1 Reliability convergence

Model reliability validity			
	Cronbach's Alpha	CR	AVE
Information quality	0.839	0.839	0.636
mass of system	0.928	0.929	0.765
quality of service	0.856	0.856	0.602
Perceived ease of use	0.81	0.816	0.598
Perceived usefulness	0.927	0.928	0.763
Trust	0.778	0.8	0.579
Degree of satisfaction	0.847	0.84	0.638
Consumption willingness	0.922	0.928	0.764

After the reliability analysis, the reliability coefficient of each variable is between 0.7 and 0.8, indicating that the scale has good internal consistency reliability.

Validity Analysis Is an important part of the empirical analysis, usually researchers do not have enough time or resources to develop new measurement tools (Jiao et al, 2021), this study is based on the literature review shows the relationship between variables or association construction, and according to the investigation is the result of the item wording, expression of further revised and perfect, the results are shown in the following table.

TABLE 3-2 KMO and Bartlett's Test

Sample a sufficient Kaiser-Meyer-Olkin metric.	0.887
The sphericity test of the Bartlett	Approximate chi square
df	124
Sig.	0.000

As can be seen from the above table, KMO is 0.887, greater than 0.6, which meets the premise requirements of factor analysis, and the data pass the Bartlett sphericity test ($p < 0.05$), indicating that the study data meets the requirements.



Chapter 4

Result of the Study

4.1 Descriptive Analysis

This study makes statistical analysis from six aspects of the samples' residence time in Thailand, gender, age, occupation, monthly income and education background. The results are shown in Table 4-1.

TABLE 4-1 Sample statistics

variable	items	frequency	percent (%)
How long have you been living in Thailand	12 months and below	63	12.1
	13 to 24 months	129	24.9
	25 to 36 months	74	14.3
	37 to 48 months	81	15.6
	49 to 60 months	61	11.8
	61 to 72 months	55	10.6
	73 to 84 months	56	19.8
	Your gender	the male	281
the female		238	45.9
How old are you	under the age of 20	27	5.2
	21 to 30 years old	209	40.3
	31 to 40 years old	159	30.6
	41 to 50 years old	56	10.8
	51 to 60 years old	48	9.2
	over 61 years old	20	3.9
	Your occupation	students	57
Enterprise employees		265	51.1
Civil servants or employees of public institutions		48	9.2
the farmer		40	7.7
Freelance		84	16.2
Retired/unemployed		5	1.0
other		20	3.9
Your current monthly income		no income	43
	Less than 5000 baht	8	1.5
	5001-15000 baht	61	11.8
	15001-25000 baht	130	25
	25001-40000 baht	115	22.2
	40001-55000 baht	95	18.3

	Over 55001 baht	67	12.9
Your educational background	Junior high school and below	48	9.2
	High school	153	29.5
	Junior college or bachelor degree	232	44.7
	Bachelor degree	72	13.9
	Master degree or above	14	2.7

As can be seen from Table 4-1, there are a total of 519 people in this study, among which 129 people live in Thailand for 13 months to 24 months, accounting for 24.9% of the total number, followed by 81 people for 37 months to 48 months, accounting for 15.6% of the total number. As you can see, most of the subjects had lived in Thailand for a long time. In terms of gender, there are 281 male students, accounting for 54.1% of the total, and 238 female students, accounting for 45.9% of the total. In terms of age, there are 209 people aged 20-30, accounting for 40.3% of the total population, followed by 159 people aged 30-40, accounting for 30.6% of the total population. From this, it can be seen that the age of the study sample tends to be middle-aged and young, while the population of the elderly and teenagers is small. In terms of occupation, there are 265 employees in the enterprise, accounting for 51.1 of the total number of employees, followed by 84 freelancers, accounting for 9.2% of the total number of employees. This indicates that employees in the sample enterprises have a higher demand for takeaway food.

4.2 Correlation Analysis

In this paper, Pearson coefficient was used to study the correlation between variables, and the value range was [-1, 1], generally represented by r letter.

TABLE 4-2 Correlation analysis

		Product factors	Performance Expectancy	Effort Expectancy	Facilitating Social Condition	Influence	Using intention
Product factors	Pearson correlation	1	.339**	.329**	.336**	.369**	.316**
	Significance		.000	.000	.000	.000	.000
	case number	519	519	519	519	519	519
Performance Expectancy	Pearson correlation	.339**	1	.403**	.382**	.333**	.325**
	Significance	.000		.000	.000	.000	.000
	case number	519	519	519	519	519	519
Effort Expectancy	Pearson correlation	.329**	.403**	1	.368**	.344**	.302**
	Significance	.000	.000		.000	.000	.000
	case number	519	519	519	519	519	519

Facilitating Condition	Pearson correlation	.336**	.382**	.368**	1	.288**	.297**
	Significance	.000	.000	.000		.000	.000
	case number	519	519	519	519	519	519
Social Influence	Pearson correlation	.252**	.266**	.319**	.284**	.187**	.309**
	Significance	.000	.000	.000	.000	.000	.000
	case number	519	519	519	519	519	519
Using intention	Pearson correlation	.316**	.325**	.302**	.297**	.339**	1
	Significance	.000	.000	.000	.000	.000	
	case number	519	519	519	519	519	519

As can be seen from Table 4-2 and above, the correlations among perceived risk, social influence, promotion conditions, effort expectation, performance expectation, product factors and usage intention were conducted through correlation analysis. The Pearson correlation factor reflects the strength of the correlation. Through detailed research, it is found that perceived risk and use intention is of great significance, and their correlation values are 0.838, and both of them are more than 0, which means that there is a certain positive correlation between them. There is a strong correlation between social influence and users' usage intention. The correlation is 0.850, respectively, and both are higher than 0, indicating a positive correlation. Convenience conditions are significantly correlated to use, and their correlation values are 0.776, respectively, and both of them are higher than 0, which indicates that they are positively correlated to use. There is a very obvious relationship between effort expectation and use intention. Their correlation values are 0.775, respectively, and their correlation values are both more than 0, indicating a strong positive relationship between them. The results show that there is an obvious positive relationship between performance expectation and application intention, the correlation between the two is 0.795, and the correlation between the two is more than 0. There is an obvious correlation between product factor and intention to use, and the correlation values are 0.756, respectively, both of which are larger than 0, meaning there is a positive correlation between product factor and intention to use.

4.3 Regression analysis

This paper mainly tests the relationship between each variable and willingness to use through regression analysis. Through correlation study, it verifies that there is significant correlation between each variable. Based on this, linear regression analysis is adopted in this section to test each dimension. In the regression analysis, the F test at the level of 0.05 significantly indicates the validity of the model, and R² in the model abstract represents the total explanatory degree of all independent variables to dependent variables. In the t-test in the coefficient table, p value less than 0.05 indicates

that there is a significant influence, and then B indicates the influence of this independent variable in the model. On the contrary, there is no effect.

TABLE 4-3 Influence of product factors on performance expectation

	Nonstandardized coefficient		Normalization coefficient	t	p	VIF	R ²	Adjustment R ²	F
	B	Standard error	Beta						
Constant	0.448	0.183	-	2.451	0.015*	-	0.632	0.630	F (1,198)=340.225,p=0.000
Product factors	0.866	0.047	0.795	18.445	0.000**	1.000			

Dependent variable : Performance Expectancy

D-W Quantitative value : 1.817

* p<0.05 ** p<0.01

As can be seen from Table 4-3 above, the linear regression analysis is carried out by taking product factors as independent variables and performance expectations as dependent variables. As can be seen from the above table, the model formula is: Performance expectations =0.448 + 0.866* Product factors, and the R square value of the model is 0.632, which means that product factors can explain 63.2% of the variation reasons of performance expectations. When conducting F test on the model, it was found that the model passed the F test (F=340.225, P =0.000<0.05), which indicated that product factors must have an impact on performance expectation. Finally, specific analysis showed that:

The regression coefficient value of product factor is 0.866(t=18.445, P =0.000<0.01), which means that product factor has a significant positive influence on performance expectation. Summary analysis shows that all product factors have a significant positive impact on performance expectation, H1 is established.

TABLE 4-4 Influence of Using intention on performance expectation

	Nonstandardized coefficient		Normalization coefficient	t	p	VIF	R ²	Adjustment R ²	F
	B	Standard error	Beta						
Constant	0.684	0.168	-	4.079	0.000**	-	0.632	0.631	F (1,198)=340.610,p=0.000
Performance Expectancy	0.801	0.043	0.795	18.456	0.000**	1.000			

Dependent variable : Using intention

D-W Quantitative value : 1.969

* p<0.05 ** p<0.01

As can be seen from the above table, performance expectation is taken as the independent variable and willingness to use is taken as the dependent variable for linear regression analysis. As can be seen from the above table, the model formula is:

Willingness to use =0.684 + 0.801* Performance expectation, and the R square

value of the model is 0.632, which means that performance expectation can explain 63.2% of the reasons for the change of willingness to use. When conducting F test on the model, it was found that the model passed the F test ($F=340.610$, $P=0.000<0.05$), which indicated that performance expectation must have an impact on willingness to use. Like Liu et al (2022) drew a conclusion from his research on Cambodian consumers' online shopping willingness, and found that consumers gradually accepted the form of online shopping, but there were some concerns during the shopping process, such as fear of poor product quality, communication, and generally expected after-sales service problems, which can be referred to as service quality issues, and are also one of the factors affecting online consumers' purchasing willingness. Finally, specific analysis showed that:

The regression coefficient value of performance expectation is 0.801 ($t=18.456$, $P=0.000<0.01$), which means that performance expectation has a significant positive influence on use intention.

Summary analysis shows that all performance expectations have a significant positive impact on willingness to use, and H2 is established.

TABLE 4-5 Influence of effort expectancy on performance expectation

	Nonstandardized coefficient		Normalization coefficient	t	p	VIF	R ²	Adjustment R ²	F
	B	Standard error	Beta						
Constant	0.400	0.187	-	2.141	0.034*	-			
Effort Expectancy	0.868	0.047	0.793	18.297	0.000**	1.000	0.628	0.626	F (1,198)=334.782, p=0.000

Dependent variable : Performance Expectancy
D-W Quantitative value : 1.871
* p<0.05 ** p<0.01

As can be seen from the above table, taking effort expectation as independent variable and performance expectation as dependent variable for linear regression analysis, it can be seen from the above table that the model formula is: Performance expectation = 0.400 + 0.868* effort expectation, and the R square value of the model is 0.628, which means that effort expectation can explain 62.8% of the reasons for the change of performance expectation.

When conducting F test on the model, it was found that the model passed the F test ($F=334.782$, $P=0.000<0.05$), which indicated that effort expectation must have an impact on performance expectation. Finally, specific analysis showed that:

The regression coefficient value of effort expectation is 0.868 ($t=18.297$, $P=0.000<0.01$), which means that effort expectation has a significant positive influence on performance expectation.

Summary analysis shows that all effort expectations have a significant positive impact on performance expectations, and H3 is not valid.

TABLE 4-6 Influence of effort expectancy on Using intention

	Nonstandardized coefficient		Normalization coefficient	t	p	VIF	R ²	Adjustment R ²	F
	B	Standard error	Beta						
Constant	0.392	0.195	-	2.007	0.046*	-			
Effort Expectancy	0.856	0.050	0.775	17.276	0.000**	1.000	0.601	0.599	F (1,198)=298.444,p=0.000

Dependent variable : Using intention
D-W Quantitative value : 1.953
* p<0.05 ** p<0.01

As can be seen from the above table, taking effort expectation as independent variable and willingness to use as dependent variable for linear regression analysis, it can be seen from the above table that the model formula is: Willingness to use = 0.392 + 0.856* Effort expectation, and the R square value of the model is 0.601, which means that effort expectation can explain the reason for 60.1% change of willingness to use. The model passed the F-test (F=298.444, P =0.000<0.05), indicating that effort expectation must have an impact on willingness to use. Finally, specific analysis shows that:

The regression coefficient of effort expectation was 0.856(t=17.276, P =0.000<0.01), indicating that effort expectation had a significant positive influence on willingness to use.

TABLE 4-7 Influence of Facilitating Condition on Effort Expectancy

	Nonstandardized coefficient		Normalization coefficient	t	p	VIF	R ²	Adjustment R ²	F
	B	Standard error	Beta						
Constant	0.686	0.155	-	4.432	0.000**	-			
Facilitating Condition	0.812	0.039	0.829	20.893	0.000**	1.000	0.688	0.686	F (1,198)=436.507,p=0.000

Dependent variable : Effort Expectancy
D-W Quantitative value : 1.986
* p<0.05 ** p<0.01

As can be seen from the above table, linear regression analysis is carried out by taking facilitation factors as independent variables and effort expectation as dependent variables. As can be seen from the above table, the model formula is: Effort expectation = 0.686 + 0.812* facilitation factors, and the R square value of the model is 0.688, which means that facilitation factors can explain 68.8% of the change reasons of effort expectation. F test of the model found that the model passed the F test (F=436.507, P =0.000<0.05), which indicated that the promoting factors must have an impact on effort expectation. Finally, specific analysis showed that:

The regression coefficient value of promoting factors was 0.812(t=20.893, P =0.000<0.01), indicating that promoting factors had a significant positive influence on

effort expectation. Like the quality level of service is aimed at the ability to meet customer needs, and is also aimed at helping enterprises reduce service costs and obtain more benefits (Lu et al, 2020).

TABLE 4-8 Influence of Social Influence on Perceived risk

	Nonstandardized coefficient		Normalization coefficient	t	p	VIF	R ²	Adjustment R ²	F
	B	Standard error	Beta						
Constant	0.580	0.165	-	3.515	0.001**	-			
Social Influence	0.831	0.043	0.810	19.460	0.000**	1.000	0.657	0.655	F (1,198)=378.693, p=0.000

Dependent variable : Perceived risk

D-W Quantitative value : 1.952

* p<0.05 ** p<0.01

As can be seen from the above table, linear regression analysis is conducted with social impact as independent variable and perceived risk as dependent variable. As can be seen from the above table, the model formula is perceived risk = 0.580 + 0.831* Social impact, and the R square value of the model is 0.657, which means that 65.7% of the changes in perceived risk can be explained by social impact. When conducting F test on the model, it was found that the model passed the F test (F=378.693, P = 0.000 < 0.05), which indicated that social influence must have an impact on perceived risk. Finally, specific analysis showed that:

The regression coefficient value of social influence is 0.831 (t=19.460, P = 0.000 < 0.01). Summary analysis shows that all social influences have a significant positive impact on perceived risk, and H6 is established.

Meanwhile, someone who thinks that exercise will lead to undesirable outcomes will have a negative attitude. Rabaa'i (2022) define attitude as "a disposition to respond favorably or unfavorably towards some psychological object. For example, someone who believes that smoking every day is bad for their health would hold an attitude toward smoking.

Subjective norms are the sum of all of the important people in someone's life and whether they think those people would want them to perform the behavior.

TABLE 4-9 Influence of Perceived risk on Using intention

	Nonstandardized coefficient		Normalization coefficient	t	p	VIF	R ²	Adjustment R ²	F
	B	Standard error	Beta						
Constant	0.430	0.155	-	2.771	0.006**	-			
Perceived risk	0.876	0.041	0.838	21.602	0.000**	1.000	0.702	0.701	F (1,198)=466.629, p=0.000

Nonstandardized coefficient B	Standard error	Normalization coefficient Beta	t	p	VIF	R ²	Adjustment R ²	F
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Dependent variable : Using intention

D-W Quantitative value : 2.150

* p<0.05 ** p<0.01

As can be seen from the above table, perceived risk is taken as the independent variable, while willingness to use is taken as the dependent variable for linear regression analysis. As can be seen from the above table, the model formula is: Willingness to use = -0.430 + 0.876* Perceived risk, and the R square value of the model is 0.702, which means that perceived risk can explain 70.2% of the change in willingness to use. F test on the model found that the model passed the F test (F=466.629, P =0.000<0.05). The perceived risk must have an impact on the willingness to use, and the final concrete analysis shows that:

The regression coefficient value of perceived risk was 0.876(t=21.602, P =0.000<0.01), indicating that perceived risk had a significant positive influence on willingness to use.

Summary analysis shows that all perceived risks have a significant positive impact on willingness to use, and H3 is not valid.

TABLE 4-10 The influence of various variables on Using intention

	Nonstandardized coefficient B	Standard error	Normalization coefficient Beta	t	p	VIF	R ²	Adjustment R ²	F
Constant	-0.073	0.148	-	-0.495	0.621	-			
Perceived risk	0.367	0.069	0.351	5.299	0.000**	4.132			
Social Influence	0.452	0.075	0.421	6.063	0.000**	4.543			F (5,194)=1
Facilitating Condition	-0.016	0.078	-0.014	-0.199	0.842	4.914	0.794	0.789	49.452,p=0.000
Effort Expectancy	0.057	0.074	0.052	0.767	0.444	4.280			
Performance Expectancy	0.143	0.067	0.142	2.128	0.035*	4.190			

Dependent variable : Using intention

D-W Quantitative value : 1.995

* p<0.05 ** p<0.01

As can be seen from Table 4-10 above, perceived risk, social impact, facilitation factors, effort expectation and performance expectation are taken as independent variables. In contrast, willingness is taken as the dependent variable for linear regression analysis. As can be seen from the above table, the model formula is as follows: Willingness to use = -0.073 + 0.367* Perceived risk + 0.452* Social influence -0.016*

promoting factor + 0.057* Effort expectation + 0.143* performance expectation, the r-squared value of the model is 0.794, Meaning perceived risk, social impact, enablers, effort expectations, and performance expectations could explain 79.4% of the variation in willingness to use. F test of model found that the model passed the F test ($F=149.452$, $P=0.000<0.05$), which indicated that at least one of the perceived risks, social influence, promoting factor, effort expectation and effort expectation and performance expectation would have an impact on the willingness to use. In addition, the multi-collinearity test of the model found that.

All VIF values in the model are less than 5, which means there is no collinearity problem. In addition, the D-w value is near the number 2, indicating that the model does not have autocorrelation and has no correlation between sample data. Therefore, the model is good. The final concrete analysis shows that:

The regression coefficient value of perceived risk was 0.367($t=5.299$, $P=0.000<0.01$), indicating that perceived risk significantly positively influenced willingness to use.

The regression coefficient value of social influence is 0.452($t=6.063$, $P=0.000<0.01$), which means that social influence has a significant positive influence on willingness to use.

The regression coefficient value of the promoting factors was -0.016($t=-0.199$, $P=0.842>0.05$), which meant that the promoting factors did not influence the willingness to use. The regression coefficient value of effort expectation is 0.057($t=0.767$, $P=0.444>0.05$), which means that effort expectation does not influence willingness to use, and the lower the value is, the stronger the willingness to use.

The regression coefficient value of performance expectation is 0.143($t=2.128$, $P=0.035<0.05$), meaning that performance expectation significantly influences use intention. Summary analysis shows that perceived risk, social impact and performance expectation significantly influence use intention. However, the facilitation factor and effort expectation did not influence the willingness to use.

4.4 Analysis of research results

The main purpose of this study is to explore the impact of performance expectation, effort expectation, facilitation factors, social influence and perceived risk on willingness to use, and take performance expectation as a mediator variable. Literature research, hypothesis deduction and other methods were used to explore the relationship between performance expectation, effort expectation, facilitation factors, social influence and perceived risk on willingness to use, as well as whether performance expectation plays a mediating role. The hypothesis results are shown in the table below.

TABLE 4-11 Research hypothesis verification results statistics

Research hypothesis		
H1	Product factors will have a positive impact on Performance Expectancy.	acceptable
H2	Performance Expectancy will have a positive and direct impact on the intention to continue using it.	acceptable
H3	The lower Effort Expectancy is, the higher Performance	acceptable

	Expectancy.	
H4	The lower the Effort Expectancy, the stronger the using intention.	unacceptable

Through data analysis, the results show that:

(1) Product factors positively impact performance expectations, which supports the establishment of hypothesis H1. The results show that if the product purchased by Grab can achieve or exceed their ideal, the user will be satisfied and may use the APP again. Grab users' positive satisfaction with the product will increase their willingness to continue using the mobile takeout APP.

(2) Performance expectations will positively and directly impact the willingness to continue using. Hypothesis H2 is supported. The results show that if the customer thinks the app can help the customer effectively complete the order. If the customer has a higher favorable rating, then the customer will be more interested in the app. Overall, the performance expectations of Grab food delivery users are positive for their app.

(3) The lower the effort expectation, the higher the performance expectation and the stronger the action intention. Support hypothesis H3 is not valid. The study found that once people learn Grab's technology and can use it well, their performance expectations are high, and they are willing to order. But it can also bring some benefits to themselves and then play a positive role in its long-term use.

(4) Perceived convenience has a positive effect on effort expectation. Support hypothesis H4. The results show a significant positive correlation between the perception of a comfortable environment and job expectations. When users are in use, they can use mobile phones to provide convenience in information collection and purchasing activities. At the same time, they can also provide rich commodities so that different occupations, needs, and shopping experiences can be solved in an emergency, which may bring inconvenience and other problems. This will increase the user's willingness to use in the future. Therefore, we can conclude that incentive conditions positively affect job expectations.

Chapter 5

Conclusion and Recommendation

5.1 Conclusion

Through the research, this paper believes that the UTAUT model of Grab takeout users' continuous use intention is reasonable. Through the research, it can be verified that performance expectation, effort expectation, perceived risk and social influence positively affect Grab takeout users' intention to continue using. Subjective norm is the function of social norm belief and the motivation for people to abide by every important person in life. That is, performance expectation plays a mediating role between product factors and uses intention; Effort expectation and perceived risk positively affected Grab takeout users' intention to continue using. Grab Takeout product factors positively impact users' intention to continue using. In contrast, Grab Takeout users' perceived social influence and performance expectations positively impact users' intention to continue using. The significance of this study is that we use the UTAUT model to explore why people use Grab takeout. This not only helps us understand the behaviour and psychology of people when using the product but also helps us understand why people reject the product. The continuous development of the Internet and mobile technology gives consumers more choices.

The design and current situation analysis process of this study focuses on analyzing the actual problems that consumers have in the consumption process of Grab takeout app through quantitative analysis. Then, a sampling survey was conducted through a questionnaire, and after two weeks of collection, 361 questionnaires were obtained. This study mainly used quantitative research methods to test the validity of the data based on these 361 questionnaires, which underwent reliability and validity analysis, correlation analysis, and regression analysis. The reliability analysis shows that the reliability coefficients of each variable are between 0.7 and 0.8, indicating that they are very in line with the standard. The validity analysis shows that the value of KMO is $0.887 > 0.8$, indicating that this data is suitable for factor analysis. Secondly, correlation analysis and regression analysis both indicate a direct relationship between variables and influence each other, further verifying and concluding that all four hypotheses designed are valid.

The following conclusions are drawn in this article: Firstly, through research, this article believes that the UTAUT model of Grab takeout users' continuous use intention is reasonable. Through research, it has been confirmed that the influencing variables have a positive impact on the willingness of takeout users to continue using..

Secondly, the Grab delivery app needs to meet the needs of users. Network delivery platforms must strengthen their attention to users, strengthen research and analysis of local market users, timely identify their existing problems and shortcomings, take measures to continuously improve, adjust marketing strategies, enhance their competitiveness, better adapt to fierce market competition, and achieve

long-term development.

The problems identified in this study based on quantitative analysis include: 1) the high degree of homogenization of apps and the high overlap rate of user markets; 2) The quality of employees cannot improve customer satisfaction; 3) There are many food safety issues with takeout apps.

Grab has greatly facilitated people's lives, allowing them to spend more time and energy on other things than cooking or eating out. Grab has thrived without user support. With its low cost, high efficiency and convenient service, it quickly expanded from one city to the whole country. Because of its convenience, it has become the first choice of many young people. In addition, in this rapidly developing era of mobile Internet, people use mobile Internet to accomplish various things. Grab takeout is a prime example. Although it has achieved great success in the Chinese market, the market competition has become increasingly fierce as it continues to grow and expand. User loyalty is not high; many people are turning to other delivery platforms. Grab has also faced some challenges along the way. For one thing, Grab takeout needs to meet user demand. Therefore, the network delivery platform must strengthen the attention to users, strengthen the research and analysis of local market users, timely find their problems and shortcomings, take measures to improve constantly, adjust the marketing strategy, to enhance their competitiveness, better adapt to the fierce market competition, achieve long-term development.

5.2 Recommendation

5.2.1 Improve service level and facilitate user consumption experience

Every Grab Takeout user wants to have a better consumption experience when consuming to meet the performance expectations of Grab Takeout better, narrow the difference between expected and actual performance, improve the satisfaction of Grab Takeout users and enhance their willingness to continue using. In daily work, Grab takeout vendors have to take the initiative to maintain the platform, optimize the platform interface, simplify the operation process, and classify items so that consumers can better place orders online, thus reducing the time wasted by them.

Meanwhile, some Grab delivery platforms have also started smart recommendations, which can analyze users' preferences and offer menu recommendations based on their past spending history. In this way, users' interest in using can be greatly enhanced, their usage efficiency can be improved, their effort expectations can be increased, and their performance expectations can be improved. At the same time, if the delivery platform can quickly deliver food to users, it can raise the work expectations of Grab takeout users and enable them to get better service at a certain cost, which is also an important way to meet users' performance expectations better. Inthong et al. (2022) showed that subjective criteria would affect users' sustained behaviour, and they were divided into interpersonal and external factors. In many companies, how to apply market positioning strategy has become a big problem.

Therefore, Grab should pay attention to users' contributions and minimize users' investments to ensure the best service for users. On this basis, this paper puts forward a

new solution, namely: in the aspect of takeaway service, provides a new solution. Currently, most delivery platforms use a salary calculation method. In this way, delivery personnel can work hard to pay their own salaries, reduce delivery time, increase delivery volume, and provide a better customer experience.

5.2.2 Pay attention to the correction of their own problems and establish a good social image

Some Grab Takeaways users need to communicate with takeaways customers because they have problems or needs. The quality of customer service online will also affect whether Grab's food delivery customers are willing to stick with the site. If users can get a better experience from customers' inquiries, their understanding of Grab delivery platform will be improved, and they will have a stronger influence on it (Subhani, 2022). In addition, Grab also needs to get more praise from its users to enhance its image and influence society, thus improving its overall operating efficiency. According to the study, over half of Grab's food-delivery users are office workers, the biggest spenders and the company's target audience. So far, many Grab delivery platforms have developed their own order marketing strategies for employees based on their actual needs. Now Grab's take-out service is getting much attention. Excellent food quality can reduce users' worries when placing orders, effectively reduce the perceived risk, improve user satisfaction, and promote users' continued use.

5.3 Further Study

This paper studies the influence of Grab takeout intention. In the framework of UTAUT theory, product elements, performance expectations, effort expectations, incentive conditions, social influence, cognitive risk and other factors are linked together to construct user usage intention of product elements. However, the paper also has some things that could be improved. Based on previous literature studies, a series of content studies were conducted on the public through questionnaires. However, only seven variables were studied in this paper. In fact, many factors influencing users' consent behaviours, such as emotional value, perceived value, perceived ease of use, etc., were not considered. Its variables will be added in future research to carry out better a deeper study on users' consent behaviour.

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Appendix

Dear Madam/Sir,

Hello!The survey results will only be used for my master's thesis research and will not involve any commercial purposes. Please fill in truthfully according to your own actual situation and feelings. Thank you for your support and help!

Screening question

Have you used the Grab Food app in Thailand ?

- A. Yes
- B. No

If you choose A, you can continue to answer the questions and complete the questionnaire. If you choose B, the questionnaire ends.

Part 1: Basic information

1. How long have you been living in Thailand:

- A. 12 months and below
- B. 13 to 24 months
- C. 25 to 36 months
- D. 37 to 48 months
- E. 49 to 60 months
- F. 61 to 72 months
- G.73 to 84 months

2. Your gender:

- A. Male
- B. Female

3. How old are you:

- A. under the age of20
- B. 20 to 30 years old
- C. 30 to 40 years old
- D. 40 to 50 years old
- E. 50 to 60 years old
- F. over 60 years old

4. Your occupation:

- A. students
- B. Enterprise employees
- C. Civil servants or employees ofpublic institutions
- D. the farmer
- E. Freelance
- F. Retired/unemployed

5. Your current monthly income is:

- A. no income
- B. Less than 5000 baht
- C. 5000- 15000 baht
- D. 15000-25000 baht
- E. 25000-40000 baht

6. Your educational background is:

- A Junior high school and below
- B High school
- C Junior college or bachelor degree
- D. Bachelor degree or above

Part 2: Formal Questionnaire

			Totally disagree	disagree	Average	Agree	Strongly agree
7	Product factors	Discounts on Grab's takeaway products appeal to me					
8		Grab's product packaging and other images appeal to me.					
9		The product reviews on Grab will influence my purchase of the product.					
10	Performance Expectancy	Grab has a wider range of products than I thought.					
11		Grab has more features than I thought.					
12		Using the Grab delivery App, I got the food I wanted					
14	Effort Expectancy	I am satisfied with the service and experience of Grab					
15		It was easy for me to become proficient with Grab					
16		I find it convenient to use Grab on my phone.					

17	Facilitating Condition	Grab's online food delivery offerings are growing in variety.					
18		The use of Grab is more and more in line with my operating habits.					
19		My colleagues and friends all use Grab to order food.					
20	Social Influence	I often see Grab ads on various media channels.					
21		My friends have good comments on Grab and will recommend it to others					
22		I think Grab is a reputable and socially responsible platform					
23		I've been aware of all the potential problems with Grab's online food delivery.					
24	Perceived risk	I have a strong psychological endurance, can accept some unexpected circumstances.					
25		If something goes wrong with Grab, I know how to fix it.					
26	Using intention	I think Grab's takeout app is very professional.					
27		I would recommend people to use Grab to order food instead of other ways or platforms.					
28		I plan to use Grab for online food delivery in the long run.					

