



**INFLUENCING FACTORS OF USERS' WILLINGNESS TO
CONTINUOUSLY USE MEITUAN APP**

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**AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF
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INFLUENCING FACTORS OF USERS' WILLINGNESS TO CONTINUOUSLY USE MEITUAN APP


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This Independent Study has been Approved as a Partial Fulfillment of the
Requirement of an International Master of Business Administration

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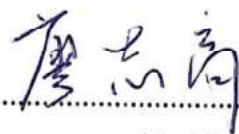
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ABSTRACT

Mobile takeout applications (Apps) have been the most popular mobile applications since 2020. But with the increase in competitors, users of the Meituan APP are being lost, and the using intention is declining. This paper aimed to enhance the APP users' willingness to continuously use Meituan APP, from which their operators will benefit a lot. This paper synthesized the expectation-confirmation model of information systems to analyze the affecting factors of users' willingness to continuously use applications.

The objectives of the study were: 1) To explore the influencing factors that affect users' willingness to continuously use Meituan APP applications; 2) To determine whether expectation confirmation, perceived usefulness, perceived convenience, perceived quality, perceived price advantage, and user satisfaction have a positive effect on willingness to continue using Meituan APP applications; 3) To provide suggestions for the enhancement of users' willingness to continuously use Meituan APP applications.

This study adopted the quantitative research method. In this study, a total of 328 questionnaires were distributed, with 295 valid questionnaires, and the validity rate was 89.94%. This paper analyzed the factors that affect the willingness to continue using the Meituan APP applications. It was found that: 1) The factors with the greatest influence on willingness to continue using the app were expectation confirmation, user satisfaction, and perceived usefulness, perceived convenience, perceived quality, perceived price advantage. 2) Expectation confirmation has a positive effect on willingness to continue using Meituan APP applications; Perceived usefulness has a positive effect on willingness to continue using Meituan APP applications; Perceived

convenience has a positive effect on willingness to continue using Meituan APP applications; Perceived quality has a positive effect on willingness to continue using Meituan APP applications; Perceived price advantage has a positive effect on willingness to continue using Meituan APP applications; and User satisfaction has a positive effect on willingness to continue using Meituan APP applications. 3) Meituan APP applications should focus on the following aspects: Elevation of expectation confirmation; Enhancement of users' perceived usefulness; Enhancement of users' perceived convenience; Enhancement of users' perceived quality; Enhancement of users' price advantage; and Enhancement of user satisfaction.

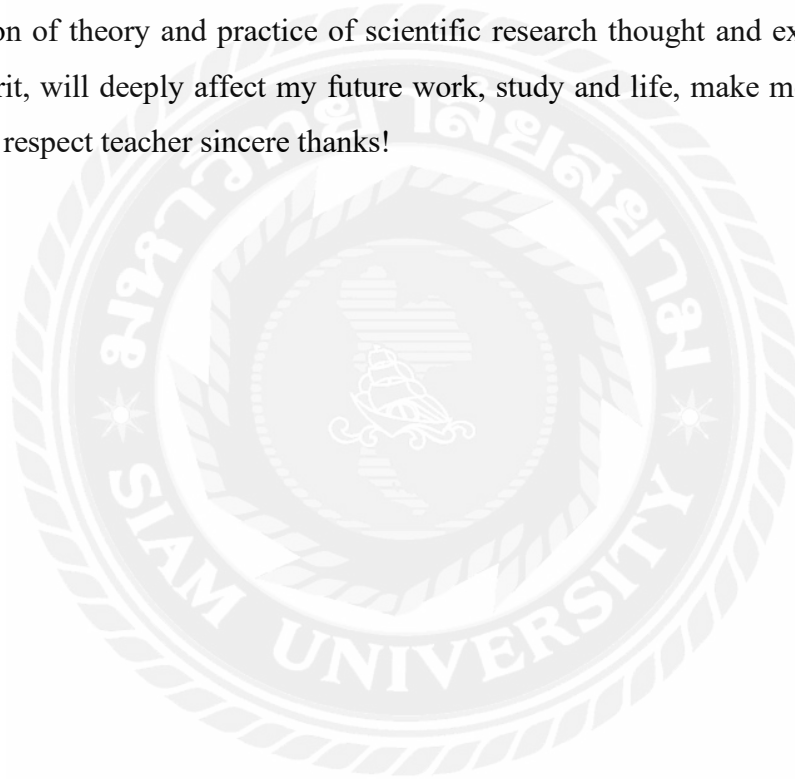
Keywords: mobile takeout applications; perceptive performance; continuance intention; influence factors



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This thesis is successfully completed under the careful guidance and kind care of the supervisor. Teacher profound knowledge contain rigorous doing scholarly research attitude, seeking truth from facts of scientific research style, confident work enthusiasm, the combination of theory and practice of scientific research thought and explore the innovative spirit, will deeply affect my future work, study and life, make me lifelong benefit, in this respect teacher sincere thanks!



DECLARATION

I, *Chen Wei*, hereby certify that the work embodied in this independent study entitled “*Influencing Factors of Users’ Willingness to Continuously Use Meituan App*” result of original research and has not been submitted for a higher degree to any other university or institution.

Chen Wei

Chen Wei
Feb 1, 2024



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Chapter 1 Introduction

1.1 Background of the Study

With the continuous development of mobile internet and big data technology further promoting the mobile industry's development, more and more mobile users have been inundated with fragmented online information. According to the 35th China Internet Development Statistics released by China Internet Network Information Centre (CNNIC), as of December 2020, the number of domestic mobile Internet users reached 557 million, an increase of 33.3% year-on-year, and the proportion of domestic Internet users increased to 85.8%, with mobile phone usage surpassing traditional PC as the number one Internet terminal. In 2020, mobile phones also saw explosive growth in instant messaging, travel, dining, and other lifestyle applications(Ren,2015). The use and popularity of large-screen mobile phones have greatly satisfied users' needs for entertainment, consumption, and reading, allowing more and more people to develop the habit of consuming through mobile. According to data from a survey report by Speedy.com, 78% of mobile restaurant users are accustomed to using mobile access, while only 22% of users choose to use PC access, and the advantages of mobile are continuing to take the lead with the development of the mobile Internet.

The buzzword of the mobile internet in 2020 is Online to Offline (O2O), which has swept through the entire restaurant industry and the rise of takeaway App has become a hot topic on the mobile internet. According to the "O2O Mobile Application Industry Report 2020" released by Pinch.com and Talking Data, the report shows that by the end of December 2020, close to 60% of Android users have used mobile O2O services, and this user group will continue to expand. IDC data shows that the market share of Android users will be 81.5% in 2020, so the data on Android apps is representative. Among the O2O mobile apps, the largest number of apps are restaurant apps, accounting for 14.6% of the total number of O2O apps(Zhang,2019). Takeaway apps (App), a typical app in restaurant O2O, are also springing up in 2020, providing convenience to people's lives.

1.2 Questions of the Study

As BAT giants are moving into the restaurant O2O market, competition in the restaurant Online to Offline (O2O) market is becoming increasingly fierce, especially in the takeaway APP market (Tang, 2013). With the popularity of mobile payment, more and more users are trying to order takeout, which has also led

to the rapid growth of Meituan Application (APP) users. However, according to relevant reports, mobile app users are gradually returning to rationality, their growth rate is slowing down, and the mobile internet demographic dividend will gradually disappear. Meituan APP is moving towards the 2.0 era and is bound to experience industry mergers and consolidation in the "big fish eat small fish, small fish eat shrimp" style. How can Meituan APP operators avoid the historical mistake of group buying networks, seize the first opportunity, and stand out? That has become a pressing problem for many Meituan APP operators to solve.

Riding on the momentum of the mobile internet's telling development, O2O became the biggest buzzword of the mobile internet in 2020 (Chen, 2018). According to the report of the China E-commerce Research Centre, O2O for food and beverage is still hot in 2020, especially in the field of O2O for food and beverage takeaway, which has market development potential and is developing in the future. With the efforts of major Meituan APP operators, ordering takeout by mobile phone has become the preferred way for many users. The market has potential for the future (Xi, 2019). Although the popularity of Meituan APP is high among university students and white-collar workers, Meituan APP is still facing many challenges, such as rising operating costs, low active users, and low user stickiness, which are problems faced by all mobile apps, and the key to solving them is to retain users and keep them going. This situation prompted the researcher to ask: What makes users willing to try Meituan APPs to order takeout and give up the idea of continuing to use them? What are the factors that influence users to continue using the Meituan app? Given this, it would be of great practical value to study the factors that influence the persistence of Meituan APP users. This study takes Meituan APP users as the research object and combines the expectation confirmation theory and the ECM-IT model as the theoretical framework for the study.

(1) What factors affect users' willingness to continuously use Meituan APP applications?

(2) What are the relationships between expectation confirmation, perceived usefulness, perceived convenience, perceived quality, perceived price advantage, user satisfaction, and users' willingness to continuously use Meituan APP applications?

(3) What suggestions can be made for the enhancement of users' willingness to continuously use Meituan APP applications?

1.3 Objectives of Study

The main objective of this study is to help Meituan APP retain their existing users, i.e., to understand the mechanisms that play a role in Meituan APP users' willingness to continue using them after their initial use. As a typical application of restaurant O2O, the Meituan APP is the product of the restaurant industry and mobile Internet information technology. The Meituan APP is a medium for selling catering products, especially takeaway catering products, and its users are, on the one hand, the users of the information system and, on the other hand, the consumers of the catering (takeaway) products. The mechanism of the Meituan APP is different from the previous studies on enterprise information systems and e-commerce websites. Therefore, this study adds new research variables to the research context of Meituan APP to investigate the mechanism of continuous use of information systems. This study is an extension of the theoretical model of information system persistence of use by adding new research variables to this research context.

(1) To explore the influencing factors that affect users' willingness to continuously use Meituan APP applications.

(2) To determine whether expectation confirmation, perceived usefulness, perceived convenience, perceived quality, perceived price advantage, and user satisfaction have a positive effect on willingness to continue using Meituan APP applications.

(3) To provide suggestions for the enhancement of users' willingness to continuously use Meituan APP applications.

1.4 Significance of the Study

In terms of theoretical implications, many scholars have used various theoretical models, such as the Technology Acceptance Model (TAM) and its refinement models, to study users' motivations and influencing factors for using mobile Internet products, but there is little research on the iconic mobile Internet product, the Meituan APP. However, few studies have been conducted on the iconic mobile Internet product, the Meituan APP and few studies have been conducted on users' persistent use of the Meituan APP. Previous studies have focused more on users' acceptance or adoption of a particular type of mobile Internet application, but there is a lack of research on their subsequent and sustained usage behavior. Therefore, the research results in this paper will expand the research on the willingness to continue using mobile applications in the field of life services on China's mobile Internet. Based on the widely adopted extended ECM-IT, this paper considers the influence of user perceptions, personal emotions, external factors, and the system itself on the intention to continue using, and then explores which factors are more influential.

In practical terms, the success of the Meituan APP as an information system is not only the initial use by users but also the attraction for users to continue to use the Meituan APP when ordering food (ordering takeaway), as the homogeneity of food products and services offered by the Meituan APP is increasing, leading to more and more competition in the Meituan APP market. As a result, it has become more difficult for Meituan APP platforms to develop new markets and attract new users while retaining existing users has become more important. Therefore, the study of how to retain existing users is of great relevance to Meituan APP. This paper constructs a complete model of the factors influencing Meituan APP's willingness to continue using the app using the extended information system continuity usage theoretical model (ECM-IT), combined with consumer behavior theory, and uses the findings of this paper to provide some guidance to Meituan APP developers and their promoters in their decision-making behavior in the specific marketing promotion process. At the same time, it can also provide strategies for small and medium-sized catering enterprises in China to better ride on the mobile Internet for rapid development. The results of this study will, to a certain extent, guide the decision-making behavior of Meituan APP developers and their promoters in the specific marketing process.

1.5 Definition of Key Terms

Online to Offline (O2O)

Online to Offline (O2O) refers to offline business opportunities with the Internet, making the Internet a platform for offline transactions (Alex, 2015). This concept was introduced in the United States. The O2O model involves not only online but also offline, which can be referred to as O2O. Although it has not been developed for a long time, the concept and prospects of the O2O business model have been introduced in many mainstream business management courses. Data shows that in 2013, the O2O models entered a rapid phase of development and have been integrated into people's daily lives, especially with mobile terminals, which has led to the emergence of the O2O business model as a localized offshoot of the O2O models. According to Zhang Zixuan (2018), the O2O e-commerce model generally requires an integrated online and offline member marketing system, national authority, credible website certification, an independent online shopping mall, comprehensive social media and customer interaction online, and online advertising and marketing.

Meituan Applications (APP)

Meituan APP refers to mobile terminals such as smartphones or tablet computers that people use to order mobile applications for people to order take-out using mobile terminals such as smartphones or tablets.

Expectation Confirmation (EC)

Expectation Confirmation: The user's expectations of the system's functionality and performance are usually obtained through questionnaires or interviews. The operational definition includes an assessment of the user's expectations before use.

Perceived Performance

Perceived Performance: The user's perception of the speed and efficiency of task execution when using the system. It can be operationally defined through user feedback, experimental measurements, etc.

Perceived Usefulness (PU)

Perceived Usefulness: the user's perception of the usefulness of the functionality and task execution provided by the system. The operational definition involves the user's subjective evaluation of the system's functionality.

Perceived Convenience (SC)

Perceived Convenience: the user's perception of how easy it is to use the system. Includes the user's assessment of sensory and cognitive aspects of system operation.

Perceived Quality (SQ)

Perceived Quality: The user's perception of the overall quality of the system. The definition includes a subjective evaluation of the system interface, functionality, and performance.

Perceived Price Advantage (VA)

Perceived price advantage: the user's perception of the system's value for money relative to cost. The operational definition includes a subjective assessment of the system's costs and benefits.

User Satisfaction(CS)

User Satisfaction: The user's overall satisfaction with the system experience. It can be derived from a combination of perceptual indicators or measured by a direct questionnaire.

Willingness to Continue Using the Applications (BI)

Behavioral Intention to Continue: The user's expressed willingness to continue using the system. Operational definitions may include how much and how long the user intends to use the system in the future.

1.6 Limitation of the Study

In terms of data acquisition, a total of 295 valid questionnaires were obtained for this study, which is a small sample size. If we are to draw more objective and instructive conclusions, we need to expand the sample size. As the questionnaires were collected mainly by inviting friends to fill them out and distributing them on their behalf, this approach may make the sample less representative. Therefore, the sample may not represent the views of all Meituan APP users. This may also be the reason for the age and education concentration of the sample data in this paper.

In terms of the design of the scale, this study drew on the more mature scales from previous research on continuous use intention and combined them with the characteristics of the restaurant O2O industry to form the final measurement scale, but the validity of some variables, such as the dimensions of perceived quality, was average, and the measurement scale received a limited correction. It is hoped that in future research, on the one hand, with the expansion of the group of subjects and the in-depth understanding of the restaurant O2O industry, a more mature scale suitable for the restaurant O2O industry can be explored; on the other hand, the design of the scale should be based on the characteristics of the APP system and the products and services provided by the APP for each dimension of perceived performance, so that the validity of the variables can be better and more appropriate to the actual characteristics of the sample.

In terms of research perspective, this paper categorizes the factors that affect users' intention to continue to use a Meituan APP from the perspective of the characteristics of the Meituan APP itself and the users themselves, but many factors affect users' continued use of a Meituan APP, and it can be explored from multiple perspectives, including the merchants that are part of the Meituan APP, the operation mode, and another external environment. Therefore, this paper does not explore a wide range of perspectives.

1.7 Scope of the Study

This paper selects Meituan APP users as the scope of the study. College students and working youth in society are taken as the key user groups of mobile Internet, mainly based on the following reasons: Since this paper is a study on the continuous usage intention of Meituan APP users, the sample needs to have certain usage experiences. The main focus is on the two groups of white-collar workers and students, which have in common a strong willingness to accept new technologies. This study used a combination of online and offline questionnaires to collect data. The online questionnaire was created and released on the online survey platform Questionnaire Star and distributed to friends and classmates across the country through QQ, email, microblogs, and forums, as well as scanning the QR code of WeChat and the circle of friends. Since this study is a study of the continuous use intention of Meituan APP users, the survey respondents of this study were chosen to be those who had used Meituan APP to order takeout. In terms of questionnaire design, the online version will have screening questions before the research and the offline version will be censored by the researcher by asking questions before the research.

Chapter 2 Literature Review

2.1 Introduction

The literature review of this study is based on the technology acceptance model, expectation confirmation theory and information system continuity of use model to analyze the factors affecting willingness to continue using the app. Through the literature review, the factors influencing user satisfaction and willingness to continue using the app are identified. Based on the analysis and conclusions of related studies, the conceptual model of this study is constructed to determine the relationship between expectation confirmation, perceived performance, user satisfaction and contributing factors on willingness to continue using the app.

2.2 Literature Review

2.2.1 Research Related to User Behaviour Toward Mobile Commerce Application

To understand the current status of research on Meituan APP, i.e., takeaway ordering applications, this study compares domestic and international literature. A keyword search of several representative databases (China Knowledge Network and Wanfang in China and Science Direct in other countries) shows that the development of takeaway ordering applications in other countries is early, and the takeaway ordering method has been generally accepted, but there are few empirical studies on takeaway ordering applications. Most of the studies focus on the exploration of business models and how to optimize the Meituan APP system from the operator's perspective to improve user experience; there are very few studies on takeaway ordering applications in China, and the few qualitative studies focus on the system design and optimization of takeaway ordering applications, the development status of takeaway ordering applications, and future marketing strategies (Duan, 2014).

Since Meituan APP has only just started to develop in 2014, domestic scholars' research on the user behavior of Meituan APP is still in the initial stage, with little theoretical literature to draw on and more articles in the news reporting category. Most scholars in the past have focused on how to be better accepted by users as a convenience service and less on the willingness and behavior of users of Meituan APP as a specific information system. Therefore, it is necessary to study the continuous usage intention of Meituan APP users from the perspective of information systems, combining users'

perception factors, personal factors, and external influences. Considering that Meituan APP is also one of the mobile commerce applications, the review of the relevant research literature on mobile commerce applications has certain references and significance for the construction of the theoretical model of this study.

A review of previous literature reveals that scholars have proposed various factors of mobile commerce applications themselves that may affect users' adoption intentions from different perspectives, and the specific research results are shown below: Davis (1989) found that perceived usefulness and perceived ease of use can have a significant positive impact on users' adoption intentions either directly or indirectly through attitude variables and formed Wu and Wang (2005) concluded that the perceived risk of a mobile application negatively influences the user's intention to adopt the mobile application. Luam (2005) found that perceived usefulness, perceived ease of use, trustworthiness, and financial cost had a significant impact on users' adoption of mobile banking. Lu et al. (2010) found that the perceived pleasure of mobile commerce had a significant impact on user adoption. Kim (2010) found that the perceived pleasantness of mobile commerce had a significant positive impact on user adoption of the application. Kim et al. (2010) found that the mobile payment system itself had a significant positive impact on user adoption.

In the study, Kim et al. (2010) found that the mobility, convenience, compatibility, and accessibility of the mobile payment system itself were the key factors influencing user adoption. et al. (2012) found that the interface design of a mobile application had a significant impact on user acceptance and use of the application. The study by Billsus et al. In a study by Deng Zhaohua et al. (2007) on the adoption behavior of mobile banking, it was found that perceived reliability had a significant impact on users' adoption of mobile banking. (2007) found that perceived reliability had a significant effect on users' adoption of mobile banking. A study by Zhou Tao et al. (2009) on mobile banking found that the convenience of mobile banking was an important factor influencing the adoption of mobile banking. The convenience of mobile banking is an important factor influencing user adoption. In addition, Li, Pucong, and Zhong, Yuan-sheng (2014) found that taxi drivers' willingness to adopt mobile taxi software was a significant factor in their study. The compatibility, irritability, and serviceability of taxi-hailing software had a significant impact on the intention of merchants to adopt mobile taxi-hailing software. In addition, Li Pu-cong and Zhong Yuan-sheng (2014) found that the compatibility, trialability, and observability of taxi-hailing software had a significant positive effect on the intention to adopt mobile taxi-hailing software.

2.2.2 Expectation Confirmation Theory

(1) The Concept of Expectation Confirmation Theory

Expectation Confirmation Theory (ECT) was first introduced in the 1970s by researchers in the field of marketing research to develop a theoretical framework centered on satisfaction to explain consumer repeat purchase behavior (Churchill and Surprenant, 1982). The difference between the two variables determines user satisfaction and affects continued use. The expectation in ECT theory refers to the user's per-purchase expectation, i.e., the pre-cut variable, while all other variables are post-use variables. According to the explanation of consumer repetitive buying behavior in ECT theory, the user expects a product or service before purchasing it; when the user uses or experiences it, he or she forms a perception of the used product or service; and finally, the user determines satisfaction based on how well the consumption experience matches the expectation, which in turn has an impact on his or her intention to repurchase. Anderson and Sullivan Bhattacharjee (2001), after reviewing and summarizing previous research findings, constructed the Expectation Confirmation Theory Model (ECM). However, subsequent research found no correlation between expectation and satisfaction (Anderson and Sullivan, 1993), so the expectation was removed from subsequent studies of continued use intentions.

(2) Research Related to Expectation Confirmation

Expectancy Confirmation is commonly applied in the field of user experience and information systems, focusing on the relationship between users' expectations before using a product or system and their satisfaction after using it. Researchers have focused on the relationship between users' expectations and satisfaction before and after the adoption of information systems (Claussen et al. 2013). For example, explore changes in users' perceptions before and after the adoption of new software, applications, or technologies. The researcher is concerned with the relationship between users' expectations of confirmation before and after making online purchases, specifically the relationship between expectations and experience during the online shopping experience (Duan, 2014).

The researcher explores the relationship between users' expectations and actual experiences with a software or website interface. This includes confirmation of user expectations about interface ease of use, design style, and functionality. The researcher examines changes in user expectations before and after the adoption of mobile applications and mobile technologies and how such changes affect user satisfaction

and continued willingness to use them (Yuan-sheng, 2014). Focusing on the confirmation of users' expectations before and after the use of social media platforms, the researcher explores the relationship between users' expectations and actual experiences in social interaction and information sharing. The researcher focuses on the confirmation of students' expectations when using online education platforms and how this relates to their satisfaction and learning outcomes during the educational process (Kim et al., 2010). The researcher examines changes in patient expectations before and after the adoption of healthcare information technology and how this affects patient satisfaction with healthcare services. These studies use quantitative and qualitative methods, such as questionnaires, user experiments, and in-depth interviews, to explore how the confirmation of users' expectations affects their satisfaction, willingness to continue using, and the decision-making process for adopting new technologies.

2.2.3 Information Technology Acceptance Theory

2.2.3.1 Theory of Rational Behaviour (TRA)

The Theory of Reasoned Action (TRA) was first applied to social psychology to explain and predict individual behavior in different domains. It has been one of the most influential theories in the study of human behavior, as it is used to explain and predict individual behavior in different domains. Fishbein and Ajzen (1975), building on the literature in the field of human behavior, were the first to distinguish between attitudes, beliefs, intentions, and behavior. On the assumption that people are rational, they proposed the Theory of Rational Behavior Theory (TRA) model, which argues that human behavior is regulated and controlled by self-will and defines each of the variables in the model in detail. Each variable in the model is defined in detail. In subsequent research, scholars have developed this theory about their research objectives. Some scholars have deepened and expanded the theory of rational behavior to improve it. Some scholars have deepened and expanded the theory by adding specific situational variables, while others have expanded the venerability of the theory by including new variables. In addition, many scholars have expanded the model by incorporating new variables.

2.2.3.2 Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (TPB) is an extension of the Theory of Reasoned Behaviour, which builds on the TPB model by introducing perceived

behavioral control variables, thereby attempting to explain and predict all behavior both outside and under the control of an individual's will. The theoretical model proposes that individuals' behavioral intentions are influenced by a combination of perceived behavioral control, supervisory norms, and attitudes, which in turn influence individual behavior. In addition, perceived behavioral control can also have a direct effect on an individual's behavior (Ajzen, 1991).

2.2.3.3 Technology Acceptance Model (TAM)

The Technology Adoption Model (TAM) is a development of the Theory of Rational Behaviour in the field of information systems. The TAM was first proposed by Davis et al. (1989) in their study of users' psychological intention to accept information systems. The TAM theory suggests that external factors influence users' acceptance behavior of information technology through perceived usefulness and perceived ease of use, thus effectively explaining information technology acceptance behavior. Subsequent empirical studies have also confirmed that the TAM model has good explanatory power. In addition, many scholars have introduced endogenous and exogenous variables based on this theoretical model to further enrich the model. (Wang Baolin et al., 2008; Sun Chao, 2009).

Although the technology acceptance model has been widely used, it still has its limitations, as it does not capture the influence of individual factors (experience and involuntariness) on the willingness to accept technology. As research progressed, scholars found that the addition of other theories and models to the technology acceptance domain also had some explanatory power, and as a result, Venkatesh et al. (2003) combined eight theories that were generally agreed upon by scholars to construct the Unified Theory of Acceptance and Use of Technology (UTAUT). The UTAUT model was found to have an explanatory power of 70% in explaining intention, and subsequent studies on technology adoption have mostly adopted the new theoretical model.

2.2.3.4 Research Related to Perceived Performance

The four dimensions of perceived performance (perceived usefulness, perceived convenience, perceived quality, and perceived price advantage) have been studied in the Technology Acceptance Model (TAM), especially in explaining user adoption of new technologies.

(1) Perceived Usefulness

Research has shown that users' perceived usefulness of system functions and tasks is a factor influencing their decisions on technology adoption. Researchers typically measure perceived usefulness by investigating users' perceptions and expectations of system functionality. In a study on the factors influencing users' adoption behavior towards mobile banking, Luam (2005) found that users' self-efficacy had a significant impact on users' adoption of mobile banking. Venkatesh et al. (2012) found that user habits had a significant impact on the adoption intention and use of mobile commerce technologies and that age, gender, and experience played a moderating role. In a study on mobile securities by Chinese scholars Lin and others (2010), it was found that user trust had an impact on users' intention to adopt mobile securities. In a study by Chinese scholar Chen Tianjiao (2007), it was found that usage context has a significant influence on users' intentions to adopt. Zhou et al. (2009) found in their study of mobile banking user adoption behavior that social influence had a significant effect on users'

(2) Perceived Convenience

TAM emphasizes the user's perceived ease of using the technology. Research has shown that users' perception that a system is easy to use, learn, and operate enhances their positive attitudes toward the system. Therefore, perceived convenience is one of the important factors that influence users' adoption of new technologies. Zhou Tao et al. (2009) verified that the user's The study by Zhou Tao et al. (2009) verified that the user's technology suitability has a significant impact on the user's adoption behavior of mobile banking. In addition, Li Pucong and Zhong Yuan (2014) found in their study of taxi drivers' adoption intentions towards mobile taxi software that users' task technology suitability had a significant positive effect on merchants' intention to adopt mobile taxi software.

(3) Perceived Quality

Researchers focus on users' perceptions of the overall quality of the system, including the system's performance, interface design, and stability. The positively perceived quality of the system by users helps to increase their willingness to adopt the technology. Scholars have found in their research that factors of mobile commerce itself, such as convenience, security, and page design, have a significant role in influencing users' behavior in using mobile commerce applications (Venkatesh 2012; Hsu et al. 2011). In a study based on the technology acceptance model and diffusion of innovation

theory, Zhang Jianying (2014), a Chinese scholar, found that perceived attentiveness had a significant positive effect on college students' use of mobile newspapers and that mobile newspaper design had a significant indirect effect on college students' use of mobile newspapers through perceived usefulness and perceived inattentiveness.

(4) Perceived Price Advantage

Although TAM focuses on user perceptions of the system, some extended studies have considered cost and benefit factors. Perceived price advantage includes the user's perception of the system's value for money relative to cost. Studies in this area typically focus on users' subjective assessments of the system's costs and benefits. In a study by Yu, Mingnan et al. (2014), it was found that perceived device performance positively influenced users' intention to use mobile banking, while perceived cost inversely influenced users' intention to use mobile banking. In a study by Qian Ying (2014) on the usage behavior of users of online public courses, it was found that the basic social networking features, namely perceived sharing, perceived interaction, and perceived pleasure, all have significant indirect effects on users' intention to use mobile banking through behavioral attitudes.

These factors interact within the TAM framework and collectively influence users' attitudes and willingness to adopt the technology. Researchers often use questionnaires, experimental studies, and other methods to understand users' perceptions in these areas and how this affects whether they adopt new technologies.

2.2.4 Information System Continuity of Use Model

In recent years, scholars have begun to move away from research related to technology acceptance to the study of information system users' persistent usage intentions and behaviors, i.e., increasingly focusing on users' persistent intentions and behaviors towards a particular information system, which is as important as initial adoption. Bhattacharjee, who first broke away from the Technology Acceptance Model (TAM) proposed by Davis et al. (1989), constructed a new Information Systems Continuity Model (ECM-IT) based on the Expectation Confirmation Theory (ECT), which originated in marketing research on consumer satisfaction and post-purchase behavior. Bhattacharjee (2001), in his two studies on Internet banking and e-business, has used the ECM model as a basis for his research on the perceived usefulness of information systems. Tang (2012) used Internet banking and e-commerce as the research contexts and verified the model's good explanatory power and validity. In the

model, the degree of confirmation refers to the degree of confirmation of the user's expectations from earlier use experiences, i.e., the degree of confirmation of the desired variables after acceptance. The influence of the pre-acceptance variables is already embedded in the two constructs of confirmation and satisfaction in the model, so all the variables in the model are after acceptance by the user and present the effect of the variables after acceptance of the information system.

Later, a large number of scholars extended the ECM-IT model by adding exogenous variables. For example, Lin et al. (2005) added the exogenous variable of perceived entertainment to the model and found that perceived entertainment had a positive effect on satisfaction, but the effect of perceived usefulness on satisfaction did not hold, and both had a significant effect on willingness to continue using the app. According to Hong et al. (2006), ECM-IT and TAM are only studied from different perspectives. Hong et al. (2006) argue that ECM-IT and TAM are only different in terms of their perspectives, but they are essentially similar in that they share a common factor of perceived usefulness. Given this, Hong et al. (2006) added perceived ease of use to the ECM-IT model, drawing on previous research on TAM, to investigate the effects of perceived usefulness and perceived ease of use on satisfaction and continued use. The results of this study found that the explanatory power of the integrated model was higher than that of the single model and that there was a direct effect of perceived ease of use on intention to continue using, as well as an indirect effect through satisfaction.

In the study, scholar Limayem (2007) added persistent use behavior as a dependent variable and habit as a moderating variable for both persistent use intention and persistent use behavior and found that there was no moderating effect of a habit. Subsequently, Bhattacharjee (2008) drew on Limayem's (2007) findings in the context of literature management information systems and incorporated sustained use behavior into the ECM-IS model, with satisfaction reflecting users' short-term. Satisfaction reflects short-term user sentiment, whereas perceived usefulness reflects a belief accumulated over time, and therefore it is not possible to verify the relationship between the two. In addition, two variables from perceived behavioral control theory—self-efficacy and contributing factors—were introduced into the model, resulting in a modified theoretical model of sustained use that better explains users' sustained use. It can better explain users' intentions and behaviors for sustained use.

2.2.5 Research Related to User Satisfaction

The research on the continuous use behavior and intention of users of mobile commerce applications by domestic scholars started later than the research on the adoption and use behavior and intention of users, and the related research literature is relatively small. Since Bhattacharjee (2001) introduced expectation confirmation degree into the study of information system continuous use intention and constructed a theoretical model of information system continued use, subsequent studies only began to base on this theoretical model to conduct an in-depth analysis of various It was only after Bhattacharjee (2001) introduced expectation confirmation into the study of information systems and continued to use and construct a theoretical model of information systems that subsequent studies began to analyze various contextual variables based on this model.

Hsu and Chiu (2004) used the ECT theory and social cognitive theory to study the persistent use behavior of users of the World Wide Web and found that self-efficacy had a significant positive effect on persistent use intention. The effect of perceived behavioral control on persistent use intention was also confirmed by Hsu and Yen et al. (2006) in their study of persistent use of Online Shopping using ECT theory and Theory of Planned Behavior, and by Bhattacharjee (2008) in his study of persistent use intention of users of document management systems, which classified perceived behavioral control into self-efficacy and In a study of a sample of students with experience in online shopping, Gefen (2003) found that habit had a significant effect on perceived usefulness and perceived ease of use for this group of users and a significant effect on the intention to continue using. Naidoo and Leonard (Claussen et al. 2013) suggest that the quality of the mobile app affects customer fit in a study using the Facebook app as an example. Fence et al. (2007) found that in an e-commerce environment, the factors influencing users' intention to continue to use include satisfaction trust user expectations user perceived value, and switching costs; Twitter is an example to investigate the factors influencing the loyalty behavior of users of foreign microblogging services, arguing that users' choice of whether to continue using is strongly related to their perceived usefulness and satisfaction, among others.

2.2.6 Research Related to Willingness to Continue Using Applications

In his study of location-based applications, Xiao Jiazhen (2011) integrates task technology matching theory and information system continuous use theory. In his study, he finds that task technology matching affects continuous use intention by positively

influencing perceived usefulness, which in turn can indirectly affect continuous use intention through satisfaction. In addition, the degree of confirmation has a positive effect on perceived usefulness and user satisfaction. Cao Zhongpeng et al. (2010) found that service quality, customer satisfaction, customer value, and self-efficacy had an indirect effect on the continued use of SST in their study of the factors influencing the continued use of self-service technology. Zeng Li et al. (2014) found that attitude, subjective norms, perceived system quality, perceived information quality, and perceived service quality had a positive effect on continued use in their study of the continued use behavior of mobile reading applications. In a study by Wang Gaoshan et al. (2014), it was found that e-service quality both directly affects users' sustained use of e-commerce websites and also plays an indirect role through customer fit. Li Qian et al. (2013) found that perceived service accessibility, system quality, information quality, and expectation confirmation had a significant effect on user satisfaction and indirectly influenced willingness to continue using the app on the mobile social network, and perceived usefulness had a significant effect on willingness to continue using the app. Peng Xixian et al. (2012) studied mobile microblogging and found that satisfaction, perceived fun, and privacy security had a direct effect on microblogging willingness to continue using the app and the service.

2.3 Conceptual Framework

To analyze the influencing factors on willingness to continue using the app, this study constructed a model that included expectation confirmation, perceived performance, user satisfaction, and contributing factors on willingness to continue using the app as variables of the model. The model is constructed based on the interrelationships between the variables, as shown in Figure 2.1.

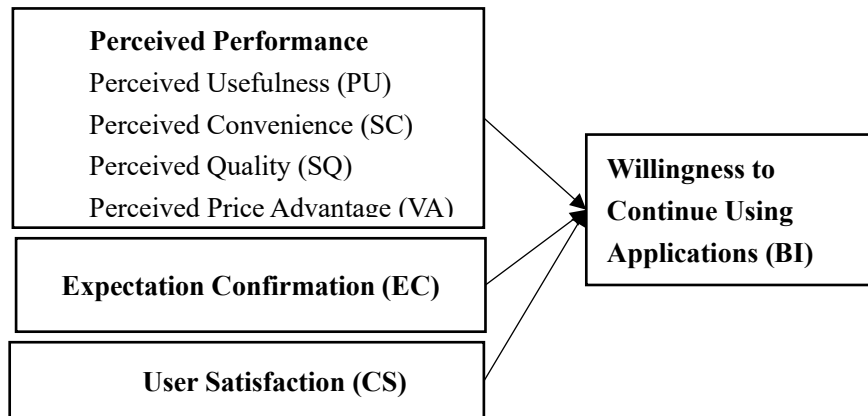


Figure 2.1 Conceptual Framework



Chapter 3 Research Methodology

3.1 Introduction

This study focused on influencing factors of willingness to continue using the Meituan App. The questionnaire was set based on classical scales, and hypotheses were formulated based on the relationship between the variables during the research process. The research population and specific sample size were determined based on the study's purpose, and data collection was conducted via mail. The reliability and validity of the collected data needed to be analyzed before the analysis of the relationship between the variables and hypothesis testing. The reliability of the data was assessed using Cronbach's alpha, while validity was determined using the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO), and Bartlett's Test of Sphericity was conducted. This study was surveyed to collect data. Sample data was collected using a Likert 5-point scale.

3.2 Research Design

This study adopted the quantitative research method. Based on extensive reading of related literature, the researcher constructed a theoretical model of Meituan APP users' willingness to use it consistently and tested the conceptual model proposed in this paper and its hypotheses through the results of online and offline questionnaire surveys and statistical analysis of data. This paper mainly used two data analysis tools, SPSS and AMOS, to analyze the data of the 295 valid samples collected in this paper, to test the reliability and validity of all the scales in this paper, to carry out structural equation modeling using AMOS, and to test the proposed hypotheses through path analysis methods.

In this study, we examined expectation confirmation, perceived performance, user satisfaction, and contributing factors to the willingness to continue using the app were analyzed, among the perceived performances, perceived usefulness (PU), perceived convenience (SC), perceived quality (SQ), and perceived price advantage (VA) are included. There are 3 items for expectation confirmation (as shown in Table 3.1), 3 items for perceived usefulness, 3 items for perceived convenience, 7 items for perceived quality, and 3 items for perceived price advantage (as shown in Table 3.2). User satisfaction has 4 items (as shown in Table 3.3), and willingness to continue using the app has 3 items (as shown in Table 3.4). The total number of measurement items in the questionnaire is 26.

Table 3.1 The Expectation Confirmation Measurement Item

Measurement Item	No
Expectation Confirmation (EC)	
1. The merchants and their meals provided by the Meituan APP are better than I expected	Q1
2. The service provided by the Meituan APP is better than what I expected.	Q2
3. Overall, my expectations of the Meituan APP were met during the use of the app.	Q3

Table 3.2 The perceived Performance Measurement Item

Measurement Item	No.
Perceived Usefulness (PU)	
4. Compared with other ways of ordering takeaway, I think it is more convenient to order takeaway on this Meituan APP.	Q4
5. Compared with other ways of ordering takeaway, ordering takeaway on this Meituan APP can complete the transaction quickly and save time.	Q5
6. Overall, the Meituan APP is very useful to my life.	Q6
Perceived Convenience (SC)	
7. The Meituan APP can provide me with takeaway information and services from neighboring merchants anytime and anywhere.	Q7
8. It is convenient that I can choose the delivery place and time of the Meituan APP by myself.	Q8
9. It is convenient that I can save the problem of getting change in cash every time I make a small payment.	Q9
Perceived Quality (SQ)	
10. The actual meals served on the Meituan APP are the same as those described in the APP.	Q10
11. The Meituan APP starts and runs very fast	Q11
12. The Meituan APP occupies less memory on the mobile phone and consumes less energy (saves electricity and traffic)	Q12
13. The transaction, refund and complaint services of the Meituan APP are processed quickly	Q13
14. The takeaways ordered on the Meituan APP can be delivered within the promised time	Q14

15. When I visit the Meituan APP, the Meituan APP suggests merchants and food products that I may be interested in.	Q15
16. The Meituan APP facilitates users to post and view reviews of food and beverage products and supports interactions between users (e.g. WeChat friend circle sharing).	Q16
Perceived Price Advantage (VA)	
17. You can buy cheaper takeaways on the Meituan APP.	Q17
18. The discounts and red packets offered by the Meituan APP can give me more benefits.	Q18
19. It is more affordable and cost-effective to order takeaways from the Meituan APP.	Q19

Table 3.3 The User Satisfaction Measurement Item

Measurement Item	No.
User Satisfaction (CS)	
20. You feel very satisfied when you use the Meituan APP.	Q20
21. You feel very happy when you use the Meituan APP.	Q21
22. You feel very accomplishment when you use the Meituan APP.	Q22
23. You feel very comfortableness when you use the Meituan APP.	Q23

Table 3.4 The Willingness to Continue Using the App Measurement Item

Measurement Item	No.
Willingness to Continue Using the App (BI)	
24. I would be happy to use the Meituan APP to order takeaway for a long time.	Q24
25. I will continue to use the Meituan APP to order takeaway even if there are other ways to order takeaway.	Q25
26. I would recommend my friends to use this Meituan APP.	Q26

3.3 Hypothesis

In this study, based on the literature review and analysis of the relevant variables, Expectation Confirmation: The user's expectations of the system's functionality and performance, usually obtained through questionnaires or interviews. The operational definition includes an assessment of the user's expectations before use. Perceived Performance: The user's perception of the speed and efficiency of task execution when using the system. It can be operationally defined through user feedback, experimental

measurements, etc. **User Satisfaction:** The user's overall satisfaction with the system experience. It can be derived from a combination of perceptual indicators or measured by a direct questionnaire. **Willingness to continue using the app:** The user's expressed willingness to continue using the system. Operational definitions may include how much and how long the user intends to use the system in the future. The relationships between the variables were finalized, and assumptions were made for each variable relationship (see Figure 3.1).

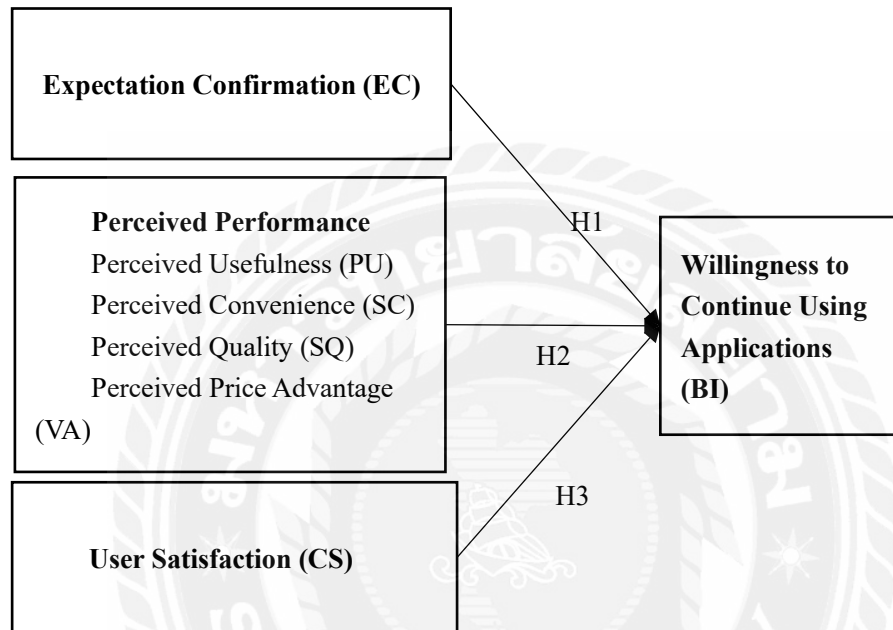


Figure 3.1 Hypotheses

H1: Expectation confirmation has a positive effect on users' willingness to continue using applications.

H2a: Perceived usefulness has a positive effect on users' willingness to continue using applications.

H2b: Perceived convenience has a positive influence on willingness to continue using applications.

H2c: Perceived quality has a positive effect on users' willingness to continue using applications.

H2d: Perceived price advantage has a positive effect on users' willingness to continue using applications.

H3: User satisfaction has a positive effect on users' willingness to continue using applications.

3.4 Population and Samples

This paper selected Meituan APP as a typical of O2O application and focuses on university students and young people working in society as a key user group of mobile Internet, mainly for the following reasons:

This paper is a study on the willingness of Meituan APP users to continue using applications; the sample needs to have usage experience. The main focus is on two groups: white-collar workers and students, who have in common a greater willingness to accept new technologies.

Using Meituan APP to order takeout not only allows consumers to enjoy more affordable prices but also more convenient and quicker services, which meets the consumption requirements of consumers who are geeks and nerds. Therefore, the sample of university students and working young white-collar workers is universal, and the questionnaire is easy to collect and random.

3.5 Data Collection

This study used a combination of online and offline questionnaires to collect the data. The online questionnaire was created and published on the online survey platform Questionnaire Star, which was distributed to friends and students across China through QQ, emails, micro-blogs, and forums, as well as by scanning QR codes on WeChat and their friends' circle. The offline survey was mainly conducted in the form of a paper version of the questionnaire in the living areas of the universities in Guangzhou, and 96 respondents were selected in advance to complete the survey. The questionnaires were collected in both ways. To ensure the reliability of the data, questionnaires that were incomplete or had more than 80% of consecutive identical items were removed, resulting in 295 valid questionnaires, representing 89.94% of the total.

As this study is a study of the ongoing usage intention of Meituan APP users, the respondents of this study were selected to be those who had used a Meituan APP for ordering a takeaway. In the design of the questionnaire, the online version will have screening questions before the research, while the offline version will be censored by

the researcher through questioning before the research is conducted.

Scholar Stevens (2002) suggests that the sample size depends on the number of variables analyzed, with a minimum of five sample observations per variable if a reliable factor structure is to be obtained, and as there are 33 question items in this study corresponding to variables in the conceptual model, the total sample size should be at least 250 according to Steven's (2002) suggestion. In addition, scholar Hair (1998) suggested that a sample size in the range of 100–400 would be appropriate if maximum likelihood estimation is used for parameter estimation. Therefore, the total number of samples in this study is 295, which is more suitable for the analysis by structural equation modeling. The following data analysis methods were used specifically for the needs of this study:

(1) Descriptive Statistical Analysis Method

The descriptive statistical analysis of this study mainly includes statistical variables such as gender, age, highest education level, occupation, the length of time users have used the Meituan APP, the frequency of use, and the percentage, mean, and standard deviation of users' perceived performance, contributing factors, satisfaction, and intention to continue using the Meituan APP, to understand the distribution of the survey sample in each variable and the overall evaluation of the Meituan APP. The survey was conducted to understand the distribution of the survey sample among the variables and the overall evaluation of the Meituan APP.

(2) Reliability and Validity Tests

After the exploratory factor analysis, to ensure the high internal consistency and reliability of all observed items in their respective factors, reliability and validity tests will be conducted on the sample. In this study, Cronbach's alpha was used to test the reliability of the scale, and 0.7 was used as the basic criterion. In this study, the validation factor analysis was conducted using AMOS 21.0 software.

(3) Correlation Analysis

To analyze the correlation between the variables, the statistical method of correlation analysis is used in this study, and the direction of influence and the degree of influence of the variables that correlate is presented. In this study, the more mature Pearson correlation analysis is used to explore the correlation between the perceived performance of Meituan APP users, expectation confirmation, contributing factors, user

satisfaction, user's intention to continue using the APP, and the degree of influence.

(4) Path Analysis (Structural Equation Modeling)

After analyzing the correlations among the variables, this study used AMOS21.0 to validate the causal relationships of the structural equation models constructed for each variable.

3.6 Data Analysis

3.6.1 Reliability

Although the reliability of the initial questionnaire had been analyzed in the pre-exist, in this section the homogeneity of the formal questionnaire, i.e. the sample as a whole, was analyzed using the CITC and Cronbach's values obtained from SPSS 20.0 software to analyze the reliability of the measures. The standard alpha coefficient for the sample as a whole was about 0.80 (>0.7), and the non-standard alpha coefficient for each variable was also greater than 0.7. The questionnaire design also had good internal consistency.

Table 3.5 The Variable Reliability Test

Variable	Measurement item	Cronbach's Alpha
Expectation Confirmation (EC)	Q1	0.881
	Q2	
	Q3	
Perceived Usefulness (PU)	Q4	0.877
	Q5	
	Q6	
Perceived Convenience (SC)	Q7	0.844
	Q8	
	Q9	
Perceived Quality (SQ)	Q10	0.823
	Q11	
	Q12	
	Q13	
	Q14	
	Q15	

	Q16	
Perceived Price Advantage (VA)	Q17	0.814
	Q18	
	Q19	
User Satisfaction (CS)	Q20	0.833
	Q21	
	Q22	
	Q23	
Willingness to Continue Using Applications (BI)	Q24	0.854
	Q25	
	Q26	

3.6.2 Validity

Validity includes content validity, calibration validity, and structural validity, the first two of which test the theoretical logic of the questionnaire design. As the scales used in this study have been well validated in previous studies and then modified to suit the study population, the formal questionnaire in this study has reliable content validity. The questionnaires in this study have reliable content validity and calibration validity, and the validity is measured in terms of construct validity, i.e., discriminant validity and convergent validity. In this study, the validity of the formal questionnaire is based on construct validity and convergent validity. The validity test in this study was based on the validity test method and procedure of Liang Wenling (2014). The method and procedure of the validity test were based on Liang (2014).

In this paper, an exploratory factor analysis was conducted using SPSS 20.0 as a means of determining the structure of each variable scale, before which KMO and Bartlett's spherical tests were also done to determine suitability for factor analysis. According to Kaiser (1974), a statistic KMO greater than 0.7 is suitable for factor analysis, and the closer it is to 1, the better the factor analysis of the sample data. The other statistic is Bartlett's spherical test, which is used to test the independence of the measured variables and should have a chi-square statistic value of 0.05 or higher. The factor loadings of the question items should be at least 0.5 and no more than two values in different components should exceed. Otherwise, the item should be purified and deleted.

(1) Exploratory Factor Analysis of Expectation Confirmation

The results of the test showed that the KMO value of the expectation confirmation

was 0.723 (>0.7) and the approximate chi-square value of Bartlett's spherical test was 378.418 (degree of freedom 3) with a significance probability value of $P = 0.000 < 0.05$, indicating that the variables are suitable for factor analysis because of the presence of common factors between them. The expectation confirmed that it was extracted as 1 factor with a cumulative variance explained of 76.751%, and the loading values of each question item on its associated factor were greater than 0.5; therefore, expectation confirmation is composed of a single factor, and the factor is expectation confirmation.

Table 3.6 The Expectation Confirmation Reliability Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.723
Bartlett's Test of Sphericity	Approx. Chi-Square	378.418
	df	293
	Sig.	0.000
Variance explained	76.751%	

(2) Exploratory Factor Analysis of User Perceived Performance

The results of the test showed that the KMO value for user perceived performance was 0.907 (>0.7) and the approximate chi-square value of Bartlett's spherical test was 2143.934, (120 degrees of freedom) with a significance probability value of $P=0.000 < 0.05$, indicating that the variables were suitable for factor analysis. User perceived performance was extracted into 4 factors with a cumulative variance explained of 65.103% and each question item had a loading value greater than 0.5 on its associated factor, while the dimension had a loading of less than 0.4 on the other factors, and each question item of factor 1 reflected the user's perceived commitment to quality from different perspectives, and the factor was named "perceived quality (SQ). Factor 2 is named "Perceived Price Advantage (VA)", while Factor 3 is named "Perceived Usefulness (PU)" and Factor 4 is named "Perceived Convenience (SC)", which reflects the user's perceived convenience from different perspectives.

Table 3.7 The Perceived Performance Reliability Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.907
Bartlett's Test of Sphericity	Approx. Chi-Square	2143.934
	df	293
	Sig.	0.000
Variance explained	65.103%	

(3) Exploratory Factor Analysis of User Satisfaction

The results of the test showed a KMO value of 0.825 (>0.7) for user satisfaction, an approximate chi-square value of 588.526 for Bartlett's spherical test, and (with 6 degrees of freedom) a significance probability value of $P=0.000<0.05$, indicating that the variables were suitable for factor analysis. User satisfaction was extracted as 1 factor with a cumulative variance explained of 72.737% and the loading coefficient (factor loading value) of each question item on its associated factor was greater than 0.5. The factor was therefore directly named user satisfaction.

Table 3.8 The User Satisfaction Reliability Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.825
Bartlett's Test of Sphericity	Approx. Chi-Square	588.526
	df	293
	Sig.	0.000
Variance explained	72.737%	

(4) Exploratory Factor Analysis of Willingness to Continue Using Applications

The results of the test showed a KMO value of 0.733 (>0.7) for users' intention to use consistently, an approximate chi-square value of 402.442 for Bartlett's spherical test, and (with 3 degrees of freedom) a significance probability value of $P=0.000<0.05$, indicating that the variables were suitable for factor analysis. Users' intention to use consistently was extracted as a factor of 1, with a cumulative variance explained of 78.011%, and the loading coefficient of each question item on its associated factor (factor The loading coefficient (factor loading value) of each question item on its associated factor was greater than 0.5, therefore, the single factor was directly named as users' intention to use consistently.

Table 3.9 The User Intention Reliability Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.733
Bartlett's Test of Sphericity	Approx. Chi-Square	402.442
	df	293
	Sig.	0.000
Variance explained	78.011%	

In summary, based on the results of the exploratory factor analysis conducted on the individual variables above, the individual variables in this study The variables were

named with a certain degree of reasonableness and were applied to the next step of the validation factor analysis.

The validation factor analysis was conducted on the sample data by AMOS 21.0. This part of the validation factor analysis was conducted to check the extent to which each measured variable in this study could constitute a latent variable, i.e. to check whether each measured question item in the formal questionnaire could fit well with the corresponding variable in the model, to measure the intrinsic quality of the model. The construct validity mainly includes convergent validity and discriminant validity, and the main measures include: standardized factor loading (>0.5 , good basic model fit); critical ratio (C.R.) of >1.96 in absolute terms, i.e. t-value at the significance level; combined reliability of >0.6 and AVE of mean extracted variance (if greater than 0.5, good convergent validity, if greater than the square of its correlation coefficient, good discriminant validity); another measure is the goodness-of-fit indicator of the model (Wu, M.L., 2012).

(5) Convergent Validity Analysis of Expectation Confirmation Scale

In order to verify the fitness of the factor structure of the expectation confirmation, a validation factor analysis of the one-factor model was conducted using AMOS 21.0 software. The results of the analysis of the expectation confirmation showed that the expectation confirmation consisted of one factor with three items, the standardized factor compliance values for each item were all greater than 0.7, the t-values were all much greater than 1.96, and all were significantly at the 0.001 level, in addition, the combined reliability was 0.845 greater than 0.6, and the AVE was 0.654 greater than 0.5, indicating that the convergent validity of the model was good. The results of the model fit indexes showed that all the fit indexes of the model met the standard requirements, indicating that the overall fit of the model was good.

Table 3.10 The Expectation Confirmation Validity Test

Variance	Measuring item	Factor Loading	AVE	Combined Reliability
Expectation Confirmation (EC)	Q1	0.777	0.654	0.845
	Q2	0.774		
	Q3	0.776		

(6) Convergent Validity Analysis of Perceived Performance Scale

To verify the suitability of the factor structure of the perceived performance, a validation factor analysis of the four-factor model was conducted using AMOS 21.0

software. The results of the perceived performance analysis show that the perceived performance consists of four factors with 16 items, and the standardized factor compliance values for each item are all greater than 0.5, the t-values are all much greater than 1.96 and all are significant at the 0.001 level, the combined reliability of each dimension is greater than 0.6, and the AVE values are greater than 0.5 for all dimensions except the perceived quality and perceived price advantage, which are less than 0.5. Therefore, the convergent validity of the model is acceptable. From the results of the model's fitness indexes, all the fitness indexes of the model meet the standard requirements, indicating that the overall fitness of the model is good. The results of the model fit indicators show that all the fit indicators of the model meet the standard requirements, indicating that the overall fit of the model is good. This confirms the hypothesis that perceived performance is a function of perceived usefulness, perceived convenience, perceived quality, and perceived price advantage. The model's results show that all of the model's fit indicators meet the standard requirements, indicating that the overall fit of the model is good.

Table 3.11 The Perceived Performance Validity Test

Variance	Measuring item	Factor Loading	AVE	Combined Reliability
Perceived Usefulness (PU)	Q4	0.756	0.634	0.887
	Q5	0.761		
	Q6	0.786		
Perceived Convenience (SC)	Q7	0.778	0.588	0.854
	Q8	0.768		
	Q9	0.799		
Perceived Quality (SQ)	Q10	0.756	0.655	0.834
	Q11	0.765		
	Q12	0.799		
	Q13	0.781		
	Q14	0.754		
	Q15	0.766		
	Q16	0.745		
Perceived Price Advantage (VA)	Q17	0.735	0.612	0.811
	Q18	0.768		
	Q19	0.789		

(3) Convergent Validity Analysis of User Satisfaction Scale

To verify the fitness of the factor structure of the user satisfaction scale, a validation factor analysis of the factor model was conducted using AMOS 21.0 software. The results of the user satisfaction analysis showed that user satisfaction consisted of one factor with four items, and the standardized factor compliance values of each item were all greater than 0.7, the t-values were all much greater than 1.96, and all were significant at the 0.001 level. From the results of the model's fitness indexes, all the model's fitness indexes met the standard requirements, indicating that the overall fitness of the model was good.

Table 3.12 The Contributing Factors Validity Test

Variance	Measuring item	Factor Loading	AVE	Combined Reliability
User Satisfaction (CS)	Q20	0.765	0.567	0.783
	Q21	0.777		
	Q22	0.733		
	Q23	0.724		

(4) Convergent Validity Analysis of the Continuity of Use Scale

To verify the suitability of the factor structure of the Willingness to Consistently Use Scale, this paper conducted a validation factor analysis on the factor model using AMOS21.0 software. The results of the analysis showed that the Willingness to Consistently Use Scale consisted of one factor with three items, and the standardized factor fit values for each item were all greater than 0.7, with t-values much greater than 1.96. In addition, the combined reliability of 0.860 is greater than 0.6 and the AVE is 0.672 is greater than 0.5. The convergent validity of the model was good. The results of the model fit indexes showed that all the fit indexes of the model met the standard requirements, indicating that the overall fit of the model was good.

Table 3.13 The Continuity of Use Scale Validity Test

Variance	Measuring item	Factor Loading	AVE	Combined Reliability
Willingness to Continue Using Applications (BI)	Q24	0.774	0.587	0.773
	Q25	0.733		
	Q26	0.765		

Chapter 4 Findings

4.1 Introduction

Data for this study were gathered through the creation and administration of a questionnaire. The data were evaluated for reliability and validity. The acquired data was deemed to be reliable and valid, and it could be examined using correlation and descriptive statistics. The relevant data in this study were subjected to descriptive statistical analysis and correlation analysis. The analysis was conducted to better understand the relationship between the variables. The hypotheses are examined using a correlation analysis.

4.2 Description of Statistical Variables

The descriptive statistical analysis of the sample in this section consists of three parts: demographic characteristics of Meituan APP users, usage of Meituan APP users, and descriptive statistical analysis of each variable.

From the statistics on the website of Questionnaire Star, the questionnaire publishing platform of this study, the geographical distribution of the questionnaire respondents in this study is wide but mainly concentrated in first-tier cities such as Beijing, Shanghai, Guangzhou, Hangzhou, and Wuhan, and the distribution of the sample is consistent with the overall situation, so the sample is representative. In terms of gender breakdown, the ratio of male to female is 1.09:1, with a relatively even ratio of men to women. In terms of age, respectively, the largest number of samples were between the ages of 18 and 24, accounting for 57.6%. In terms of education level, 89.2% of the sample had a bachelor's degree or above, indicating that the higher the education level, the more receptive they are to new technology. In terms of the occupational distribution of the sample, the ratio of students to enterprise workers was 1.03:1, which is more evenly distributed and has a good representation. In addition, the monthly spending of users using Meituan APPs shows that the largest number of people did not spend less than RMB100, and the largest number of people spent less than RMB100 on takeout.

In addition, by looking at the monthly spending of users on Meituan APP, the largest number of people did not spend less than RMB 100, accounting for 89.5% of the total sample, indicating that the general spending level of users on Meituan APP is low. This indicates that the general consumption level of users on Meituan APP is low, which has a strong relationship with their consumption frequency and is also in line with the current consumption of the sample. This is also in line with the characteristics of the current sample population, which includes students and office workers. As shown in Table 4.1.

Table 4.1 Distribution of Basic Characteristics of Samples (N = 295)

Item	Options	Frequency	Percent%
Gender	Male	154	52.15
	Female	141	47.85
Age	18-24	172	57.60
	25-35	70	23.70
	36-45	26	8.80
	46-55	21	7.10
	above 55	6	2.00
Education	Junior high school	17	5.7
	Senior high school	15	5.1
	Bachelor's degree	183	62.1
	Master degree	42	14.1
	Higher than the Master's degree	38	13
Occupation	Student	103	34.92
	Worker	100	33.90
	Teacher	16	5.3
	Civil servant	47	15.88
	Other	29	10
Number of users	Meitnerium	123	41.70
	Hungry Me	92	31.20
	Taodotou	53	18.00
	others	27	9.10
How long using	1-3 months	50	16.90
	4-6months	85	28.80
	7-9 months	57	19.30
	10-12 months	52	17.65
	more than 1 year	51	17.35
Total		295	100.0

Among the most recent Meituan APP used by users, Meitnerium Takeaway had the highest number of users, at 123, accounting for 41.7% of the total sample, followed by Hungry Me, at 31.2%, and Taodotou, at 18%, making it a triumvirate. In terms of

how long users have been using Meituan APPs, the largest number of users have been using them for 4-6 months, with 85 people, accounting for 28.8% of the total sample, followed by 6–9 months and 1-3 months, accounting for 19.3% and 16.9%, respectively, while users who chose other times were also relatively even. However, it can be seen from the data that most users use Meituan APP less than once a week, accounting for 53.6%, followed by 1-3 times a week, accounting for 34.2%, with a total of 87.8% of users using Meituan APP less than 3 times a week, which shows that users using Meituan APP to order takeaway is an occasional act and the activity of users is generally low, so Meituan APP needs to make further efforts in this regard. As shown in Table 4.1

As structural equation modeling is required in this study, a test of normal distribution for all question terms of each variable is required before modeling. Therefore, to prepare the groundwork for the structural equation modelling analysis below, this study performs a normal distribution test on the available data. The skewness and kurtosis of the sample data were measured. The skewness and kurtosis of each item met the criteria for testing the reference values, thus indicating that the sample data obeyed a normal distribution and could be subjected to the maximum likelihood method for subsequent structural equation testing.

4.3 Results of the Study

In this study, the four-dimensional factors of expectation confirmation, perceived performance, and user satisfaction were used as independent variables, and the dependent variable was willingness to continue using the app them. The correlation analysis was conducted using Pearson analysis in SPSS20.0. The sample was analyzed for expectation confirmation, perceived usefulness, and perceived convenience. The correlation between expectation confirmation, perceived usefulness, perceived convenience, perceived quality, perceived price advantage, user satisfaction, and users' willingness to continue using the product was significant. There is a significant correlation between expectation confirmation, perceived usefulness, perceived convenience, perceived quality, perceived price advantage, user satisfaction, and continued use. The following section will further investigate the causal relationships between the variables using structural equation modeling. In the following section, the causal relationships between the variables are further analyzed using structural equation modeling.

Table 4. 2 Correlation Between Variables (Pearson Correlation Matrix)

	CS	EC	PU	SC	SQ	VA	BI
CS	1						
EC	.528**	1					
PU	.348**	.533**	1				
SC	.328**	.567**	.544**	1			
SQ	.426**	.458**	.455**	.522**	1		
VA	.333**	.367**	.387**	.533**	.344**	1	
BI	.456**	.476**	.328**	.598**	.001	.025	1

NOTE: *. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

Based on the results of the analysis of the research data, the hypothesized relationships between the variables were validated, and the results were finally interpreted, as shown in Table 4.1.

Table 4.3 Hypothesis Testing

NO	Hypothesis	Result
1	H1: Expectation confirmation has a positive effect on users' willingness to continue using applications.	Established
2	H2a: Perceived usefulness has a positive effect on users' willingness to continue using applications.	Established
3	H2b: Perceived convenience has a positive influence on users' willingness to continue using applications.	Established
4	H2c: Perceived quality has a positive effect on users' willingness to continue using applications.	Established
5	H3: User satisfaction has a positive effect on users' willingness to continue using applications.	Established

Chapter 5 Conclusion and Recommendation

5.1 Conclusion

The literature review of this study analyzed the factors affecting the users' willingness to continue using the application based on the technology acceptance model, expectancy confirmation theory, and the model of continued use of information systems. Through the literature review, factors affecting user satisfaction and willingness to continue using the application were identified. Based on the analysis and summary of related studies, a conceptual model for this study was constructed to determine the relationship between the contributing factors of expectation confirmation, perceived performance, user satisfaction, and willingness to continue using the application. Two hundred and ninety-five (295) valid questionnaires were returned, with a valid return rate of 89.94%. Factors contributing to the willingness to continue using the application and the relationship between the factors were found through SPSS analysis.

5.1.1 Factors Influencing the Willingness to Continue Using the Meituan APP

This paper examined the factors that influence the willingness to continue using the Meituan APP. The study discovered that the most influential element on willingness to continue using the app was expectation confirmation (0.437), which had an indirect effect on willingness to continue using the app. Perceived usefulness, perceived convenience, perceived quality, perceived price advantage, and user satisfaction on willingness to continue using the app estimate values are 0.240, 0.360, 0.141, 0.290, and 0.330. Therefore, factors influencing the willingness to continue using the Meituan APP are expectation confirmation, perceived usefulness, perceived convenience, perceived quality, perceived price advantage, and user satisfaction.

5.1.2 Expectation Confirmation, Perceived Usefulness, Perceived Convenience, Perceived Quality, Perceived Price Advantage, User Satisfaction Have an Effect on Willingness to Continue Using Applications

The focus of this study is to examine the factors influencing the persistent intention of Meituan APP users from the users' perspective, focusing on the impact of the dimensions of users' perceived performance and the dimensions of contributing factors to the persistent intention of users, and comparing the degree of impact of the different dimensions. Based on the reliability and validity tests of the formal questionnaire, a preliminary correlation analysis of the relationships between the variables was conducted, and structural modeling was used using equation modeling using AMOS 21. The research hypotheses were further tested against the final revised model, and the fit of the conceptual model was as expected. Therefore, in this section, the authors will

mainly discuss the results of the validation of the underlying model assumptions.

(1) Impact of Expectation Confirmation on Willingness to Continue Using Applications (H1)

Expectation confirmation in this study refers to the extent to which the experience of users after using the Meituan APP confirms their degree of mental expectation before use. According to the hypothesis set in this study and the results of hypothesis testing, it is known that Expectation confirmation has a positive effect on user satisfaction at a 0.001 level of significance, and the path coefficient The hypothesis H1 was verified. This finding is consistent with the findings of previous scholars, indicating that users The higher the expectation confirmation of the Meituan APP, the more satisfied the users will be, further extending the expectation confirmation theory in the mobile Internet context. This further extends the theoretical basis of expectation confirmation theory in the mobile Internet context.

(2) Influence of User Perceived Performance Dimensions on Willingness to Continue Using Applications (H2a, H2b, H2c, H2d)

Among the existing results of previous scholars who have examined the impact of perceived performance dimensions on continued use after dividing them, there are few results related to the impact of perceived convenience and perceived price advantage on continued use intentions. The empirical results of this study found that the impact of each of the 4 dimensions of perceived performance on users' intention to continue to use varies. Among them, perceived usefulness and perceived convenience have a positive effect on willingness to continue using the app at the 0.000 significance level, with path coefficients of 0.24 and 0.360, respectively, and hypotheses H2a and H2b are confirmed. The path coefficient of perceived quality on willingness to continue using the app was 0.141 with a p-value of 0.000, and H2c is confirmed. Similarly, the path coefficient of perceived price advantage on willingness to continue using the app was 0.290, with a p-value of 0.000, and H2d is confirmed. The conclusion of this study that users' perceived usefulness is positively related to users' willingness to continue using is consistent with the findings of previous scholars. The perceived convenience in this study refers to the fact that users can download the Meituan APP to their mobile phones, thus enabling them to access information and location information of neighboring restaurants anytime and anywhere, as well as tap the screen to sit and wait for their meals anytime and anywhere, without the need to prepare change like traditional takeaway delivery This is especially true for post-90s students and busy office workers, who are likely to continue to use this type of app as a necessity in their lives.

The perceived quality in this study reflects the performance of the Meituan APP operator in providing an efficiently operating platform, where the information about the merchants provided on the platform is authentic and reliable and the service is fast, etc., which should have an impact on willingness to continue using the app or service, and previous research findings have partially confirmed a positive correlation between perceived quality and intention to continue using the service (Xi, 2008). The empirical results of this hypothesis do not pass the significance test, although the path coefficient is positive. The possible explanation for this is that the author believes it may be related to the characteristics of Meituan APP and their user groups. With the premise of purchasing the same meals from the same restaurant merchants, the performance they perceive in terms of the quality of Meituan APP will have a much reduced or even negligible impact on their decision-making in their long-term usage process.

Similarly, the perceived price advantage in this study is a reflection of the price benefits that users receive from using the Meituan APP, and the fact that they can enjoy the same quality product at a lower price should have an impact on their willingness to continue using it. Again, the empirical results are not confirmed, and possible explanations are that retention strategies such as points, red packets, etc. are used to retain users, and "full discounts" are offered during subsidized periods. However, the Meituan APP is unique in that while the use of the Meituan APP to order takeout can be a long-term behavior, it is not necessary. The Meituan APP is unique in that while users using it to order takeout can be a long-term behavior (Zhang, 2011). Secondly, the prices of food and beverage products offered on Meituan APP are all in the range of RMB10 per unit. Secondly, the prices of food and beverage products offered on Meituan APP are around RMB10 per unit, and the price sensitivity of users is low. Even if there is a certain degree of price concessions and offers. Therefore, the price advantage perceived by users when ordering takeout from Meituan APP no longer has a significant impact on whether users choose to continue using the product. The price advantage that users perceive when ordering from Meituan APPs no longer has a significant impact on their decision to continue using them.

(3) Effect of Users' Satisfaction on Willingness to Continue Using Applications (H3)

The results of this study show that user satisfaction has a significant effect on willingness to continue using the app at a significance level of 0.001 with a path coefficient of 0.330, and hypothesis H3 is confirmed. This finding is consistent with previous studies that have examined users' persistent use behavior, indicating that satisfaction, an affective factor in the attitude structure, has a significant impact on users' persistent use intentions and that Meituan APP can be used as a tool to improve users' satisfaction through their unique convenience and focus. It also suggests that the

convenience and focus of the Meituan APP can drive users' satisfaction after using it, which in turn drives users' willingness to continue using the Meituan APP (Qi, 2019). This finding also extends the theoretical basis of the theory to the mobile internet. This finding also extends the theoretical basis of the theory to the mobile Internet domain.

5.1.3 Suggestions for the Enhancement of Users' Willingness to Continuously Use Meituan APP

(1) Expectation Confirmation

Expectation confirmation is when users continuously verify whether their expectations are met after using Meituan Takeaway APP. When users find that the APP consistently meets their dietary needs and provides a service that meets their expectations, they are more likely to continue using it. There is an interaction between user satisfaction and expectation confirmation. When users' expectations are met, they are more likely to be satisfied. And satisfied users are more likely to view a satisfying experience as an expectation and thus continue to use it. The study shows that after using the Meituan Takeaway App, the student found that the delivery time was on time and the food was of good quality, which fully met his expectations. This experience of having his expectations met made him feel very satisfied and he was more confident to continue using the APP for his dining needs. The influence of satisfaction and expectation confirmation on continued use is achieved through a series of psychological mechanisms(Ai,2018). When users get satisfied with their usage experience, they will feel pleasure and satisfaction, thus forming a positive emotional connection. This positive emotion can strengthen users' identification and loyalty to the APP, making them more willing to continue using it.

(2) Users' Perceived Performance

Whether or not users find it convenient to use the Meituan Takeaway App directly affects their continued willingness to use it. As the pace of life continues to accelerate, there is a growing demand for users to be able to order food on their mobile phones and get food conveniently and quickly. Meituan Takeaway APP meets users' convenience expectations through its intuitive interface, diverse restaurant choices, and fast ordering process. Users can open the APP at any time between work and rest to satisfy immediate dining needs, and this convenient experience will motivate users to use the APP continuously. Perceived convenience enables users to easily satisfy their dietary needs at any time and any place. The Meituan Takeaway APP allows users to open the APP at any time, browse the restaurant menu, place an order, and then wait for delivery through a user-friendly interface and operation process, which significantly reduces the time users spend waiting for their meals. Users can use the APP in various scenarios, such as at work, at home, on the way out, etc., which meets the dietary needs of different

contexts.

In the study of this paper, it was found that some students did not want to spend time going to a restaurant to eat when they were busy at work, so they used the Meituan Takeaway APP to order a takeaway in the office, which was not only avoided the trouble of waiting in the queue but also enabled him to continue his work and save time. Diverse restaurant choices: Perceived convenience is also reflected in the fact that users can easily browse through a wide range of restaurant menus and flavors to satisfy different dietary preferences. Meituan Takeaway APP provides users with a wide range of restaurant choices, from Chinese to Western, from fast food to fine dining, users can choose according to their tastes and needs, which satisfies personalized dining needs. Simplified operation process: Perceived convenience is also shown in the simplified operation process of the Meituan Takeaway APP. Users can complete the ordering and payment process with just a few simple steps, without the need for tedious steps and complex operations. Personalized Recommendations and Promotions: Meituan Takeaway APP uses intelligent algorithms to provide personalized restaurant and menu recommendations based on users' historical orders and preferences, further improving users' perceived convenience. Meanwhile, Meituan Takeaway APP also regularly launches various preferential activities and discounts so that users can enjoy an affordable dining experience.

(3) Users' Satisfaction and Expectation Fulfillment

Users' satisfaction and expectation fulfillment also have an impact on willingness to continue using. When users' experience is consistent with expectations, they are more likely to continue using it. The Meituan Takeaway APP enhances user satisfaction through timely and accurate delivery, food quality, and service quality. User expectation confirmation, on the other hand, continuously verifies whether their expectations are met after using the APP. If users find that the APP consistently meets their dietary needs, they will be more likely to keep using it. User satisfaction is a user's overall evaluation of the experience they have had after using the Meituan Takeaway APP, and it is directly related to whether or not the user will continue to choose to use the APP. Satisfied users are more likely to keep using it, while dissatisfied users may move on to other dining options(Chen,2019). The Meituan Takeaway app enhances user satisfaction by providing high-quality delivery service, good-quality food, on-time delivery, and other enhancements. In the study, it was shown that students ordered a takeaway from Meituan Takeaway APP, but the waiting time was too long, the delivery person's service was poor, and the quality of the food was not as good as it should have been. This unsatisfactory experience may affect the user's decision-making and make him more inclined to try other dining options instead of choosing Meituan Takeaway APP for his next meal.

5.2 Recommendation

Based on the conclusions drawn from the qualitative and quantitative analyses in the previous sections, this chapter will link marketing theories and the actual situation of the restaurant O2O industry to propose marketing recommendations in terms of the four main influencing factors of users' willingness to continue using perceived convenience and perceived usefulness, respectively, which will have practical implications for the subsequent development of Meituan APP operators and further exploration of profit models. These recommendations are of practical significance to operators of Meituan APPs in their subsequent development and further exploration of profit models.

(1) Elevation of Expectations Confirmation

To improve expectation and confirmation, there are several strategies that can be employed. Firstly, the Meituan APP can provide clear and detailed product and service descriptions to ensure that users have a thorough understanding of the content and features before making a purchase, thus creating accurate expectations. Secondly, showcasing user reviews and feedback can help other users learn about the experience and avoid biased expectations. Additionally, keeping product information up-to-date is crucial to ensure that users have the most current information and to prevent falling short of expectations due to outdated information. Transparent pricing policies and promotions should also be implemented to avoid hidden fees and false advertising, allowing users to have a clear understanding of the pricing. Lastly, establishing a reliable customer service system to offer timely communication and issue resolution can build users' trust in the Meituan App, ultimately improving the level of expected confirmation. These measures can effectively enhance users' expectation confirmation, increase user satisfaction, and cultivate loyalty towards the Meituan App.

(2) Enhancement of Users' Perceived Usefulness

Enhancing the perceived usefulness of the Meituan APP has a positive impact on its ongoing usage. To capitalize on this discovery, there are several steps that the Meituan APP can take. First, it should ensure that users can efficiently and swiftly complete their tasks by consistently optimizing the app's interface design and interactive experience to reduce waiting time and operational steps. Second, the app's usefulness should be optimized, including speeding up loading times and improving responsiveness and stability, to prevent issues such as lagging or crashing during use and to enhance the user experience. Additionally, the app should actively gather user feedback and make timely improvements to ensure that users' needs and expectations are continually met. Finally, by offering features such as personalized recommendations,

special promotions, and precise positioning, the Meituan APP can strengthen users' reliance on and loyalty to the app, further encouraging ongoing usage. In conclusion, by consistently enhancing user-perceived usefulness and providing personalized services, the Meituan APP can effectively increase user satisfaction and sustained usage.

As mentioned above, the purpose of using Meituan APP is to obtain a more convenient and fast takeaway, which is mainly valued for its convenience. Therefore, Meituan APP operators should further improve their logistics and delivery diversification options based on making full use of the mobile phone's mobility, such as adding unified delivery by the APP operator's professional delivery team to improve the delivery speed. In addition, payment methods need to be further improved, as most Meituan APP currently only support three forms of payment: cash on delivery, Ali pay, and We Chat, and in the future various types of bank savings cards and credit cards can be added to meet the diverse payment options of different users.

(3) Enhancement of Users' Perceived Convenience

To improve the sense of convenience for users of the Mission App, a series of measures need to be taken to improve the user experience. First, simplifying the interface design is crucial. By reducing visual noise and redundant information, the interface is made more concise so that users can quickly find the functions. Second, optimizing the search function is essential. Improving the search algorithm and result display ensures that users can get relevant and accurate results when they enter keywords, improves the intelligence of the search, and reduces users' search time. Third, personalized recommendations are an important means to enhance user convenience. By analyzing users' historical behaviors and preferences, we can recommend products or services that meet their interests and needs and improve their shopping efficiency and satisfaction. In addition, enhancing the interactive experience is also one of the keys. Optimize loading speed, button response time, etc., to ensure smooth and unobstructed user operation and improve user comfort. In addition, increasing payment methods and optimizing delivery services can also effectively improve the user's sense of convenience. Provide diversified payment methods and flexible delivery options to meet the different payment habits and delivery needs of users, giving them a more convenient shopping experience. By simplifying the interface design, optimizing the search function and personalized recommendations, strengthening the interactive experience, increasing payment methods, and optimizing delivery services, a series of measures can comprehensively improve the sense of convenience of Meituan APP users and enhance their willingness to use and loyalty.

(4) Enhancement of Users' Perceived Quality

The key to enhancing the perceived value of a product or service lies in creating a user experience that not only meets but exceeds expectations. That entails maintaining consistent and reliable product quality, providing friendly and attentive service, and ensuring efficient and effective service delivery. Additionally, establishing an open channel for communication and feedback is essential. Users should be able to easily ask questions and receive prompt and professional responses. This level of care and attention will make users feel valued and appreciated. From the product interface design to the interaction process, from loading speed to functionality, every detail should bring a pleasant experience to the users to ensure that they can use our products or services smoothly and comfortably. In addition, continuous improvement and updating are also indispensable. By constantly collecting user feedback and market information, we can identify problems, make improvements, and keep our products in close alignment with user needs. At the same time, it is necessary to focus on brand image building. Through active brand publicity and social media marketing, enhance users' trust and satisfaction with the brand. Finally, providing value-added services is also an effective means to attract users and enhance perceived quality. Whether it's membership benefits, exclusive activities, or point rewards, these additional services can increase user stickiness and promote continued use and recommendation. Through the comprehensive implementation of the above measures, the perceived quality of the product or service can be effectively enhanced, user satisfaction and loyalty can be increased, and thus long-term business development.

(5) Enhancement of Users' Perceived Price Advantage

The key to improving users' perceptions of price advantages is to create a clear sense of value and attractiveness. First, we should ensure the transparency of our pricing strategy by clearly displaying the price components and incentives of the product or service to users so that they understand what they are paying for and enhance price transparency. Second, we need to ensure that the price of the product or service is competitive, i.e., it is more attractive relative to similar products or services and enables users to feel the actual value. In addition, special offers and discounts are organized to provide more favorable prices to promote consumption and increase users' desire to buy and satisfaction. In addition to price reductions, some additional value services are based on the product or service, such as free shipping, extended warranty, etc., so that users can feel the extra value of the purchase and reduce their price sensitivity. At the same time, set up a points system or rewards program according to the user's consumption behavior to give away points or rewards so that users feel the actual advantage of the price, enhancing the satisfaction and loyalty of the purchase. Finally, provide price comparison tools or functions so that users can easily compare the prices

of different products or services, helping them to make more rational purchase decisions and thus enhance the perception of price advantage. Through the implementation of the above comprehensive measures, we can effectively improve users' perceptions of price advantage, enhance users' purchase desire and loyalty, and thus promote sales and business growth.

(6) Enhancement of User Satisfaction

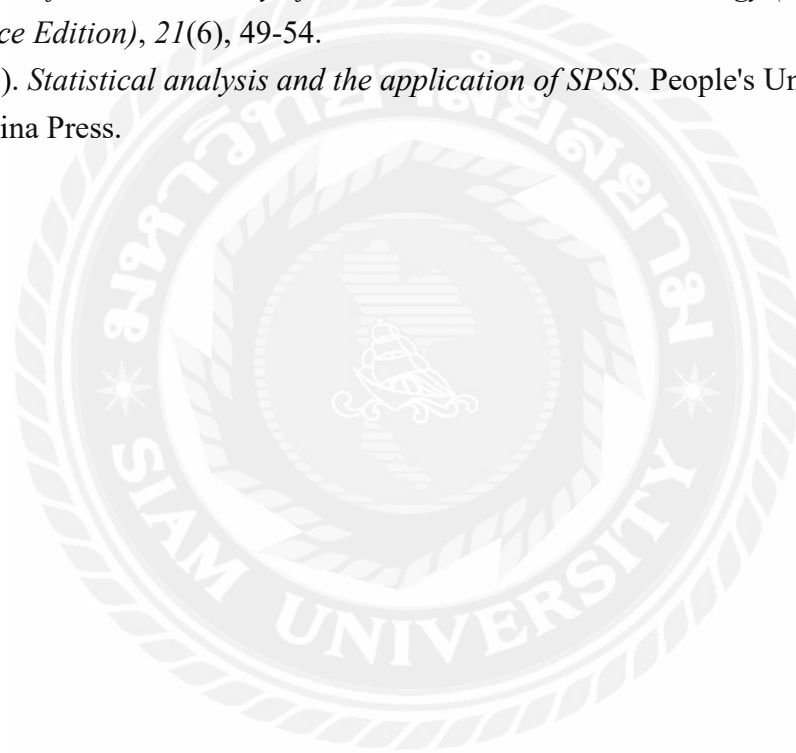
The study found that the direct effect of user satisfaction with continued use and the indirect effect of expectation confirmation. Therefore, Meituan APP operators should promote their products truthfully so that users' experience of mobile takeaway, Therefore, Meituan APP operators should promote their products so that users' experience of Meituan APPs is close to their expectations before using them, and increase the degree of confirmation of their expectations after using them, thus increasing user satisfaction. This will in turn increase user satisfaction and thus drive the willingness of users to continue using Meituan APPs.

In order to improve user satisfaction, the Meituan APP can take a series of steps. Firstly, it can enhance the user interface and interaction design to ensure a seamless and intuitive user experience. Secondly, it can offer personalized recommendations and tailored services based on users' preferences and past behavior. Additionally, it should strengthen the customer service system to provide timely responses and effective problem-solving channels, thus building user trust and satisfaction. Furthermore, ongoing improvement of product features and service quality, quick response to user feedback, and enhancement of user experience and satisfaction are crucial. Finally, the app should proactively launch special promotions and added services to attract users and cultivate their loyalty to the Meituan App. These comprehensive measures can help the Meituan APP continually enhance user satisfaction, increase user engagement, and drive business development and brand building.

References

- Ajzen, I. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84(5), 888-918.
- Anderson, E. (1993). The antecedents and consequences of customer satisfaction for firms. *Marketing Science*, 12(2), 125-143.
- Anderson, E. (1993). The antecedents and consequences of customer satisfaction for firms. *Marketing Science*, 12(2), 125-143.
- Bagozzi, R. (1989). On the use of structural equation models in experimental designs. *Journal of Marketing Research*, 26(3), 271-284.
- Bansal, H. (2004). A three-component model of customer to service providers. *Journal of the Academy of Marketing Science*, 32(3), 234-250.
- Bansal, H. (2004). Retailing E-satisfaction to behavioral outcomes: An empirical study. *Journal of Services Marketing*, 18(4), 290-302.
- Barnes, S. (2011). Modeling use continuance behavior in micro blogging services: The case of Twitter. *Journal of Computer Information Systems*, 51(4), 1-10.
- Bhattacharjee, A. (2001). *An empirical analysis of the antecedents of electronic commerce service continuance*. *Decision Support Systems*, 32(2), 201-214.
- Chandon, P. (2000). A benefit concurrency framework of sales promotion effectiveness. *Journal of Marketing*, 64(4), 65-81.
- Liang, Wenling. (2014). *Research on the influence of perceived renewal relationship value on service brand relationship renewal intention*. (Doctoral dissertation). Shandong University.
- Luo, X. (2009). *Research on the factors and mechanisms influencing the formation of consumers' repetitive purchase intention*. *Business Research*. (2), 56-60.
- Naidoo, L. (2007). Perceived usefulness, service quality and loyalty incentives: Effects on electronic service continuance. *S. Afr. J. Bus. Manage*, 38(3), 39-48.
- Peng, X. (2012). A theoretical model and empirical study of micro blog willingness to continue using the app micro blogs. *Modern Library and Information Technology*, (11), 78-85.
- Ping, R. (1993). The effects of satisfaction and structural constraints on retailer exiting, voice, loyalty, opportunism and neglect. *Journal of Retailing*, 69(3), 320-352.
- Sabrina, S. (2006). Explaining IT-based knowledge sharing behavior with IS continuance model and social factors. In *The Tenth Pacific Asia Conference on Information Systems* (pp.255-270). [N.P.].
- Shen, Y. (2010). *Virtual community loyalty: An interpersonal interaction perspective*. *International Journal of Electronic Commerce*, 15(1), 49-73.

- Spreng, R. (1996). A reexamination of the determinants of consumer satisfaction. *Journal of Marketing*, 60(7),15-32.
- Stevens, J. (2002). *Applied multivariate statistics for the social science*. Lawrence Erlbaum.
- Venkaesh, V. (2000). Theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, 186-204.
- Wen, Z. (2004). *Structural equation modeling and its applications*. Education Science Press.
- Wu, M. (2009). *Structural equation modeling: Operations and applications of AMOS*. Chongqing University Press.
- Xiao, H. (2011). Analysis of the evolution of MC consumers' continuous use behavior. *Journal of Xi'an University of Electronic Science and Technology (Social Science Edition)*, 21(6), 49-54.
- Xue, W. (2008). *Statistical analysis and the application of SPSS*. People's University of China Press.



Appendix

Questionnaire

Dear Madam/Mr:

Thank you very much for taking your valuable time to participate in this questionnaire, which is a survey on the influencing factors of Meituan APP users' continuous use intention. This questionnaire is about the influence factors of Meituan APP users' intention to continue to use, which is an academic questionnaire for my graduation design, and all the survey data is only for academic purposes. This is an academic questionnaire for my graduation design, and all the survey data is only for academic research, not for any commercial use. The survey is anonymous, and there is no right or wrong answer, please fill in the answers according to your true thoughts and actual situation. Thank you again for your assistance and cooperation!

Meituan APP refers to mobile terminals such as smartphones or tablet computers that people use to order takeaway mobile applications for people to order take-out using mobile terminals such as smartphones or tablets.

Have you ever used a Meituan APP for ordering takeaway (ordering takeaway)?
(1) Yes (Continue to answer) (2) No (End questionnaire)

Part I. Basic Information on Users' Use of Meituan APPs

1. Gender? A Male B Female
2. Age? A 18-24 B 25-35 C 36-45 D 46-55 E above 55
3. Monthly income?
A Below 2000yuan B 2001-4000 C 4001-6000 D 6001-8000
E 8001-10000 F More than 10000 yuan
4. The highest education? A Junior high school B Senior high school C Undergraduate D Master's degree E Others
5. Your occupation? A Student, B business worker, C teacher, D civil servant, E others
6. How long have you been using this Meituan APP? (Single choice)
Within 1 month 1-3 months 3-6 months 6-9 months 9-12 months more than 1 year

7. How often do you use this Meituan APP? (Single choice)

Less than once a week 1-3 times a week 4-6 times a week 7 or more times a week

Part II User Experience of Meituan APPs (Frequently Used Meituan APPs)

Please indicate your agreement with each of the following descriptions based on your actual use of the Meituan APP. Please put a tick on the corresponding number representing your level of agreement, with "1" indicating total disagreement, "7" indicating total agreement, and the specific meaning of each number indicating your level of agreement.

The specific meaning of each number is shown in the table below:

Totally Disagree	Disagree	Somewhat Disagree	General	Agree somewhat	Agree	Agree completely
1	2	3	4	5	6	7

Measuring item	1	2	3	4	5	6	7
Expectation Confirmation (EC)							
1. The merchants and their meals provided by the Meituan APP are better than I expected							
2. The service provided by the Meituan APP is better than what I expected.							
3. Overall, my expectations of the Meituan APP were met during the use of the app.							
Perceived usefulness (PU)							
4. Compared with other ways of ordering takeaway, I think it is more convenient to order takeaway on this Meituan app.							
5. Compared with other ways of ordering takeaway, ordering takeaway on this Meituan APP can complete the transaction quickly and save time.							
6. Overall, the Meituan APP is very useful to my life.							
Perceived Convenience (SC)							
7. The Meituan APP can provide me with takeaway information and services from neighbouring merchants anytime and anywhere.							

8. It is convenient that I can choose the delivery place and time of the Meituan APP by myself.							
9. It is convenient that I can save the problem of getting change in cash every time I make a small payment.							
Perceived Quality (SQ)							
10. The actual meals served on the Meituan APP are the same as those described in the APP.							
11. The Meituan APP starts and runs very fast							
12. The Meituan APP occupies less memory on the mobile phone and consumes less energy (saves electricity and traffic)							
13. The transaction, refund and complaint services of the Meituan APP are processed quickly							
14. The takeaways ordered on the Meituan APP can be delivered within the promised time							
15. When I visit the Meituan app, the Meituan APP suggests merchants and food products that I may be interested in.							
16. The Meituan APP facilitates users to post and view reviews of food and beverage products and supports interactions between users (e.g. WeChat friend circle sharing).							
Perceived price advantage (VA)							
17. You can buy cheaper takeaways on the Meituan app.							
18. The discounts and red packets offered by the Meituan APP can give me more benefits.							
19. It is more affordable and cost-effective to order takeaways from the Meituan app.							
User Satisfaction (CS)							
20. You feel very satisfied when you use the Meituan app.							
21. You feel very happy when you use the Meituan app.							
22. You feel very accomplishment when you use the Meituan app.							
23. You feel very comfortableness when you use the Meituan app.							

Willingness to continue using the app (BI)						
24. I would be happy to use the Meituan APP to order takeaway for a long time.						
25. I will continue to use the Meituan APP to order takeaway even if there are other ways to order takeaway.						
26. I would recommend my friends to use this Meituan app.						

