| **RESEARCH ARTICLE**

Empirical Study on the Relationship between Users' Mental Model and Purchase Intention of VIP Subscription: Evidence from Image Processing App in China

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| **ABSTRACT**

With the Internet entering the inventory stage, subscription services have become a major trend in the industry. As a technology company driven by artificial intelligence and with beauty as core, Meitu has launched VIP subscription services in several image processing applications. By December 2022, the number of VIP members grew to about 5.6 million, becoming a new engine for the company to open up more business space. At present, there is few research in academia on the VIP subscription intention of image processing APP. Combining the characteristics and usage experience of image processing APP, this thesis constructed the research model by introducing the concept of user's mental model in the technology acceptance model. Using the structural equation modeling method, the hypothetical model and the relationship between critical variables was validated. With SPSS28.0 and AMOS24.0 software, the confirmatory factor analysis, exploratory factor analysis and structural equation modeling was conducted. The results indicate that both quality of system interface and quality of subscription service positively influence user's mental model; mind model of users influences purchase intention through the direct path. At the same time, it also influences purchase intention through perceived ease of use and perceived usefulness, and the chain mediating path between them. Based on the findings, this thesis claims that Meitu should increase the investment in scientific research; it should not only focus on the optimization of system interface design, pay attention to the professionalism and personalized upgrade of subscription services, but also dig deeper into users' needs and occupy their minds. At the same time, Meitu App should promote the subscription model with precise positioning and tiered payment, so as to increase users' intention of subscription.

1. Introduction

With the Internet entering the inventory stage, subscription services have become a significant trend in the industry. Nowadays, the mainstream platforms of the Internet, such as reading platforms, music platforms, and life service platforms, have opened membership systems and provided subscription services, which has gradually developed into the trend of the Internet industry.

As a technology company driven by artificial intelligence and beauty as its value, Meitu provides users with quality products and services through in-depth research in imaging technology. The company continues to upgrade and optimize its imaging products with leading technology and aesthetics, helping users and the beauty industry to become more beautiful in all aspects.

Riding the fast train of the Internet's Beauty Economy, Meitu has a high weight and strong user loyalty in popular picture beautification and image processing. Since 2014, Meitu has started its global market development layout. Its overseas products have been ranked among the top 30 in the "Chinese Manufacturers' Overseas List 2020". As of June 2022, the APP products matrix of Meitu has been activated on over 2.65 billion unique mobile devices, with over 1.11 billion users overseas. According to domestic

authoritative data company Quest Mobile, Meitu and Beauty Camera again topped the "Photo Beautification" and "Photo Photography" track user scale in China Mobile Internet 2022 Semi-Annual Power Value List.

With the continuous improvement of the application technology, people's technical requirements for beauty are also increasing. According to "New Trends of Post-00s Face Management", the demand for beauty among post-00s is constantly rising, from traditional skin grinding and whitening to more refined adjustment. At the same time, more and more young people are willing to purchase digital subscription services.

With a large user base, Meitu has developed more personalized beauty tools based on free services, catering to user preferences and digging deeper into user needs. Meitu has launched premium subscription services on several image processing apps to create better and more comprehensive beauty services. Up to now, Meitu has launched its premium subscription service for domestic applications Meitu and Beauty Cam. The company reported total revenue of 2.09 billion yuan in 2022, up 25.2% year-on-year. VIP subscription services performed the most brightly among them, with VIP membership growing to approximately 5.6 million as of February 2022. It became the new engine driving Meitu to open up ideal business space.

The research on the use and purchase intention of image processing APP is still in the exploration stage. With the popularity of intelligent terminals and the development of social media, image processing APP has gradually emerged. Hao (2014) analyzed consumers' intention to pay when using image social networking sites based on a technology acceptance model and made rationalization suggestions for website operation[Error! Reference source not found.]. Du (2019) constructed a usage intention model of image processing APP with new research variables and found the most significant influence on self-fulfillment needs[Error! Reference source not found.]. Thus, the current academic research on willingness to use and purchase intention of image processing APP mainly focused on the macro level. There are fewer studies on the paid subscription model of a separate Internet application platform.

This paper's potential marginal contributions span several dimensions. First, from the theoretical point of view, by introducing the user mental model into the Technology Acceptance Model, this paper expands the application scope of TAM and enriches the empirical research on mental model and APP subscriptions. Second, from the perspective of empirical study, the research conclusions provide a theoretical basis for clarifying the complex relationship between users' mental model and purchase intention of VIP subscription. Besides, from the perspective of focusing on strategic positioning, the practical implications inspire Meitu to dig deeper into users' needs and occupy their minds, so as to increase users' intention of subscription.

The overall structure of the study takes the form of six sections. The research background is explained in Section 1. In Section 2, we briefly summarize the relevant literature regarding the TAM model, mental model, and purchase intention. The research hypotheses and conceptual model are put forward in Section 3. The research design is introduced and issues concerning data collection are displayed in Section 4. The empirical results are presented in Section 5. The conclusions, the practical implications, and the limitations of the study are presented in Section 6.

2. Literature Review
2.1 Overview of the Technology Acceptance Model
To explain the factors influencing the acceptance of computers by users, Davis (1989) proposed the technology acceptance model (TAM), which is now widely used to illustrate the acceptance of users of different information systems[Error! Reference source not found.]. Due to the widespread use of TAM, the application of this theory is comprehensive to the study of factors influencing various systems' use and purchase behavior. Bandura (1982) argued that users could perform the sequence of behaviors required by the operating system and that perception is the main factor guiding behavior. Lepper (1985) proposed that the more accessible the system interaction, the greater the user's perception and personal control[Error! Reference source not found.]. Gefen (2002) analyzed online shopping using the TAM and showed that both perceived usefulness and ease of use are influenced by users' cumulative and impact their behavioral intentions[Error! Reference source not found.]. Liu Guoxiao, Yan Duanwu, and Xu Yingnan (2012) derived revised factors influencing user technology acceptance from the perspective of human-computer interaction[Error! Reference source not found.]. This thesis considers the image processing APP a specific information system. Therefore, the TAM is necessary to support the study of the purchase intention of image processing APP consumers.

2.2 Research on Mental Model
The "mind" is a manifestation of human psychology and intelligence. At the same time, "model" refers to the external representation of the mind because it varies across individuals and is not easy for the individual to perceive. The mental model is like a filter placed in people's eyes that affects what they see and is a theory commonly used in psychology, management, and human-computer interaction.

For the definition of the mental model, Doyle & Ford (1998) stated that, as internal conceptualizations of external systems, the mental model is more measurable**Error! Reference source not found.**. Jacob & Shaw (1998) stated that the mental model is an internal cognitive structure constructed by an individual, a conceptual structure made up of an individual's experience and knowledge. People can predict the consequences of behavior and understand their situation. According to Zhang et al. (2013), from a static viewpoint, the mental model is an internal conceptual structure in long-term memory closely related to an individual's perception of the external world**Error! Reference source not found.**. Moreover, it is not only the result of past learning but also the accumulation of new knowledge. While from a dynamic viewpoint, the mental model is an internal operating mechanism that influences an individual to acquire and use knowledge, describe, and predict external things.

Many scholars began to study the mental models of different user groups in-depth and refine the mental models to apply to more fields. The number of researchers based on user mental models for APP interface and interaction design gradually increases. Liu Yang and Tang Zhichuan (2017) proposed the design strategy for sports and health management APP with a user mental model under the user-centered design concept**Error! Reference source not found.**. Zhao (2017) proposed the design principles of an electric car APP based on the user's mental model**Error! Reference source not found.**. Jiang (2018) discussed the complex characteristics of the user's mental model in terms of data, process, and content and verified the APP of Internet taxi travel for the elderly as a case study**Error! Reference source not found.**. Li Fangyu and Ni Jia (2018) constructed a mental model of elderly users based on their mental preferences**Error! Reference source not found.**. They used it to develop a meal management APP for seniors' smart kitchens. Baharum applied the mental model to create a friendly and powerful visual hierarchy interface guide for mobile shopping APP. Muhammad used the mental model as a basis to bridge the gap between usability and safety in user-centered design.

With the rapid development of modern technology, intelligence and interactivity play an increasingly prominent role in products and services. Liu Ye et al. (2018) proposed that the relationship between users and products gradually becomes a kind of interaction between people and products**Error! Reference source not found.**. In the field of human-computer interaction, Norman (1983) introduced the mental model concept in the field of interaction design**Error! Reference source not found.**. He began to pay attention to the influence of people's mental models on the use of the Internet and Web products. The author argued that user mental models could reflect their cognitive behavior, a proven way to tap into user needs. Liu et al. (2012) explored the factor characteristics of the mental model and concluded that three factors influence users' effective acceptance of the system: the user, which is the subject of information technology use; the technology, which is the object of use; and the service, which helps users to better interact with the system**Error! Reference source not found.**. It is reasonable to study the image processing APP by drawing on the user's mental model. At the same time, the human-computer interaction research results in technology acceptance can provide meaningful references for exploring the factor characteristics of the mental model.

2.3 Research on Purchase Intention

Dodds et al. (1991) argued that purchase intention is consumers' subjective awareness during purchasing and making a final decision**Error! Reference source not found.**. Zhu Xuefeng, He Yuanqiong and Tian Zhilong (2011) defined purchase intention as the likelihood that the consumer will choose the good**Error! Reference source not found.**. Chen (2019) found that consumers can make a timely decision to purchase a product if the product scenario makes them have a solid intention to consume it**Error! Reference source not found.**. Cronin et al. (2000) used consumer repurchase and positive recommendations to measure purchase intentions**Error! Reference source not found.**. Bi et al. (2010) divided the behavioral intention into repurchase and positive recommendation**Error! Reference source not found.**. Dong Dahai and Jin Yufang (2006) also classified consumer purchase intention into consumer repurchase and positive recommendation through their study**Error! Reference source not found.**. Yang and Wang (2016) also divided consumer purchase intention into the same willingness**Error! Reference source not found.**. After analyzing consumers' social shopping platforms, Wang (2017) classified consumer purchase intention into secondary purchases and positive recommendations**Error! Reference source not found.**.

At present, scholars mainly study the purchase intention of APP in terms of the formation mechanism of purchase intention and its influencing factors, which has some reference value for this paper to study the purchase intention of image processing APP. Chu (2007) proposed that factors like perceived value affect the willingness to pay for online music APP users in Taiwan**Error! Reference source not found.**. Zhu Yiyi and Lu Cheng (2019) proposed that information usefulness has a positive and significant effect on the purchase intention of mobile shopping APPs**Error! Reference source not found.**. Mntymki et al. (2020) proposed that enjoyment and perceived value are the only predictors of membership payment intention that affect users of digital music platforms**Error! Reference source not found.**. Zi Wucheng, Zhou Jiayu and Ning Huan (2020) found that social experience factors continuously influence users' intention to subscribe to sports APP**Error! Reference source not found.**. Sun Yanning (2021) proposed that factors such as perceived usefulness and perceived ease of use impact APP users' membership purchase intention by sorting out the traits of mainstream sports and fitness APP and membership content in China**Error! Reference source not found.**. Taking Keep as an example, Hu (2021) proposed that perceived usefulness affects membership purchase of sports and fitness APPs through the mediating role of perceived

value**Error! Reference source not found.**. Therefore, this study will examine image processing APP from the perspective of purchase intention with relevant variables and influencing factors mentioned above.

3. Research Hypothesis and Model Construction
3.1 Research Hypothesis
3.1.1 Perceived Usefulness and Purchase Intention

According to Davis (1989), perceived usefulness reflects how a person utilizes a particular information system and how it improves his or her job performance**Error! Reference source not found.**. With the rapid development of Internet technology, perceived usefulness has evolved from information systems to marketing. By studying mobile social applications, Hong Hong and Xu Di (2015) found that perceived usefulness, as an essential part of the construction model, has the most significant influence on users' willingness to continue using**Error! Reference source not found.**. Li Qigeng, Zhao Xiaohong and Yu Mingyang (2017) pointed out that subjective-type of online reviews have higher perceived usefulness for consumers than objective-type ones, thus having a more significant effect on purchase intention**Error! Reference source not found.**. Fang Aihua and Lu Mengmeng and Liu Kunfeng (2018) studied the purchase intention of knowledge-based products and pointed out that perceived usefulness can impact the mediating effect of perceived value**Error! Reference source not found.**. Shi Lu (2019) pointed out that the process of interpersonal metalizing is an automated reflexive process, and the perceived usefulness of online reviews can play a mediating effect between affective disposition and purchase intention**Error! Reference source not found.**.

In image processing, Zheng (2014) suggested that social networks have shown an image-driven culture in recent years. The social platform of "meeting friends with pictures" constitutes the foundation of new interpersonal communication, with three main functions: designing images and establishing identities, recording life, and creating a sense of social presence**Error! Reference source not found.**. According to Cui (2016), image processing APP has changed from simple retouching functions to beauty functions promptly and to conform to the mobile Internet trend and user psychology**Error! Reference source not found.**. In addition, under the fierce market competition, the development of image processing APP should be based on optimizing user experience in the visual era. Carroll (1988) pointed out that users can expect to get performance results while using a system and feel some degree of perceived pleasure. Based on this, this paper proposed the following hypothesis:

H1: The perceived usefulness of using an image processing APP can positively influence purchase intention.

3.1.2 Perceived Ease of Use and Purchase Intention

According to Davis (1989), perceived ease of use reflects how easy it is for people to use a particular system**Error! Reference source not found.**. The theory of the Technology Acceptance Model shows that perceived ease of use can have a positive effect on purchase intention, and the easier it is for users to operate an information system, the more willing they are to use it.

The previous studies validated the influence of perceived ease of use on consumers' purchase intentions. Through the technology acceptance model analysis, Liu Sihui (2015) concluded that perceived ease of use has the most significant impact on consumers' behavioral intention to choose social e-commerce**Error! Reference source not found.**. In a study of users' willingness to pay for online knowledge, Liu Xiaoli and Zhang Lei (2020) found a significant mediating effect of perceived value on the relationship between perceived ease of use and willingness to pay**Error! Reference source not found.**. In terms of image processing APP characteristics, Bu (2021) proposed that it is essential to understand the intrinsic needs and usage expectations of using APP products**Error! Reference source not found.**. On the one hand, the APP interface design can be more relevant to users' preferences. On the other hand, in the process of human-computer interaction, the user mental model can reduce the cognitive friction between users and APP products, enhance users' efficiency in accomplishing their goals, and make the system interface interaction design easier to use. While the current image processing APP can meet most users' image processing needs, users can unlock exclusive rights such as professional-grade portrait features and modern materials with a paid subscription. With the benefits of the subscription, users can refresh their images in just a few simple steps without spending much time on research. The more simple to use the paid functions of the image processing app, the stronger their willingness to purchase. Based on this, this paper proposed the following hypotheses:

H2: The perceived ease of use when using an image processing APP can positively influence purchase intention.

H3: Perceived ease of use when using an image processing APP positively affects perceived usefulness.

3.1.3 User Mental Model and Perceived Usefulness, Perceived Ease of Use

Liu et al. (2012) proposed that users form mental models after using a system, influencing the perception of system beliefs and eventual interactive use**Error! Reference source not found.**. Cooper (2007) defined user mental models as what users do with them based on their past perceptions by studying system interfaces, interactions, and product design methods**Error! Reference source not found.**. The author summarized the relationship among the three mental models and suggested that the user interface should base on the user mental model rather than the implementation model. The closer the presentation model is to the mental model, the easier and more efficient it is for the user to use the work. The mental model is a means to understand users' behavioral motivation, which can dig deeper into users' psychology and behavior to design products with high user experience. Image processing APP needs to present and deliver information in a more intelligent and humanized way close to the user's mental model from the user's perspective. In this way, interacting with users can reduce the user's cognitive burden, improve the interaction effect, and increase the user's acceptance of the system. Huang Qun and Zhu Chao (2009) proposed that the emergence of the user mental model can help study user behavior and discover user needs so that designers innovate products and services**Error! Reference source not found.**. Sun Ningna and Zhang Lu (2018) pointed out that the user mental model has a guiding role in product design and provides new ideas and impetus for designers to carry out product innovation**Error! Reference source not found.**. Xiao (2020) proposed that mental models can improve user experience by understanding users' behaviors and continuously improving them in response to their needs and feedback**Error! Reference source not found.**. Bu (2021) proposed that in human-computer interaction, the user mental model can reduce the cognitive friction between users and APP products, improve users' efficiency in accomplishing their goals, and make the system interface interaction design easier to use**Error! Reference source not found.**. Norman (1983) proposed that the mental model has a minimalist nature by researching users from various industries**Error! Reference source not found.**. Tao (2020) pointed out that when individual users act, they usually choose the most direct way and avoid unnecessary behaviors according to their mental models**Error! Reference source not found.**. Shi Kexin (2021) suggested that users choose the most straightforward way or draw the corresponding conclusion directly through their mental models, which can meet the perceived ease of use in product innovation design**Error! Reference source not found.**. According to Bu (2021), in the era of user experience, users' requirements for APP products are easy to use and effective, and they pay more attention to emotional pleasure and satisfaction**Error! Reference source not found.**. Based on this, this paper proposed the following hypotheses:

H4: User mental model of image processing APP positively influence perceived usefulness.
H5: User mental model of image processing APP positively influence perceived ease of use.
H6: Perceived usefulness mediates between users'mental model and purchase intention.
H7: Perceived ease of use mediates between the user's mental model and purchase intention.
H8: The user mind model influences purchase intention through the chain mediating effect of perceived ease of use-perceived usefulness.

3.1.4 System Interface Quality and User Mental Model

Liu et al. (2012) proposed that the system is the primary tool for users to complete their tasks**Error! Reference source not found.**. Combined with the characteristics of image processing APP, this paper considered system factors in terms of system interface quality. In terms of mental model and system interface design, Jordan (2003) designed for user experience from the perspective of hedonistic psychology and proposed that hedonism mainly refers to the user's sensory and aesthetic pleasure in using the product**Error! Reference source not found.**. Through the analysis of the interface of mobile phones, Yang Ying, Lei Tian and Zhang Yanhe (2008) proposed that the spatial consistency of the mental model affects the usability of the user interface**Error! Reference source not found.**. When there is a higher spatial consistency, there will be higher interactive performance and higher interface usability. Lin Yi, Chen Jing, Liu Yue and Wang Yongtian (2015) pointed out that a matching mental model should be established between interaction designers and users to align with the subjects' expectations, keeping advancing around the user's mental model**Error! Reference source not found.**. Huang Chao, Tan Meiling and Ke Wenyan (2016) pointed out that the interface's color can best attract users' visual attention, which has the function of stylizing interface color, improving functional guidance, enhancing information understanding, and strengthening information memory**Error! Reference source not found.**. Xiao (2020) compared the information structure of the camera interface under different design methods and conducted usability tests of the interface**Error! Reference source not found.**. The author explored how to combine the camera interface and the mental model to improve the match between them and proved the advantages of this new interface design through experiments. By analyzing the layout of information visualization systems in the market, Liu Zhiping (2021) generated various interface layout samples according to different content requirements**Error! Reference source not found.**. It is critical to pay attention to the quality of the user interface when developing the image processing APP system. According to Liu et al. (2012), it is significant to consider the user-centered design. A well-designed user interface helps users better operate the system, thus reducing the cognitive burden**Error! Reference source not found.**. Based on this, this paper proposed the following hypothesis:

H9: The system interface quality of the image processing APP positively affects user mental models.

3.1.5 Subscription Service Quality and Users' Mental Model

Liu et al. (2012) proposed that when using information technology and systems, users should accept the system itself and the content and services provided, which can help them better interact with the system**Error! Reference source not found.**. Given the characteristics of image processing APP, the service factor plays a central role in the usage. DeLone & McLean (2003) proposed minor improvements to the information system (IS) success model based on information systems' changing influence and management**Error! Reference source not found.**. Service quality, all support provided by the service provider, is measured mainly in service assurance, empathy, and responsiveness. Parasuraman et al. (2005) argued that online service quality included the customer's comprehensive assessment of the online shopping process and the complete after-sales service**Error! Reference source not found.**. Fassnacht & Koese (2006) proposed that online service quality refers to users' satisfaction with the efficiency and effectiveness of online service quality**Error! Reference source not found.**. Yang Xinxin, Chen Zhankui, Jiang Hongbo and Shangguan Huibai (2021) analyzed the correlation between service quality and user satisfaction of government APP under the COVID-19**Error! Reference source not found.**. For the subscription to the image processing APP, users can get access to exclusive portrait functions and materials and gain membership benefits like timely feedback and ad-free rights. Such subscription services can provide users with a personalized and satisfying experience, thus influencing their willingness to purchase. Based on this, this paper proposed the following hypothesis:

H10: Subscription service quality of image processing APP positively affects users' mental model.

3.2 Conceptual Model Construction

Considering the image processing APP as a specific information system, this paper summarized and refined the research variables involved based on the industry characteristics of image processing. The research variables include system interface quality, subscription service quality, user mental model, perceived usefulness, perceived ease of use, and purchase intention. According to the above research hypotheses, this paper proposed the the conceptual model, as shown in Figure 3-1.
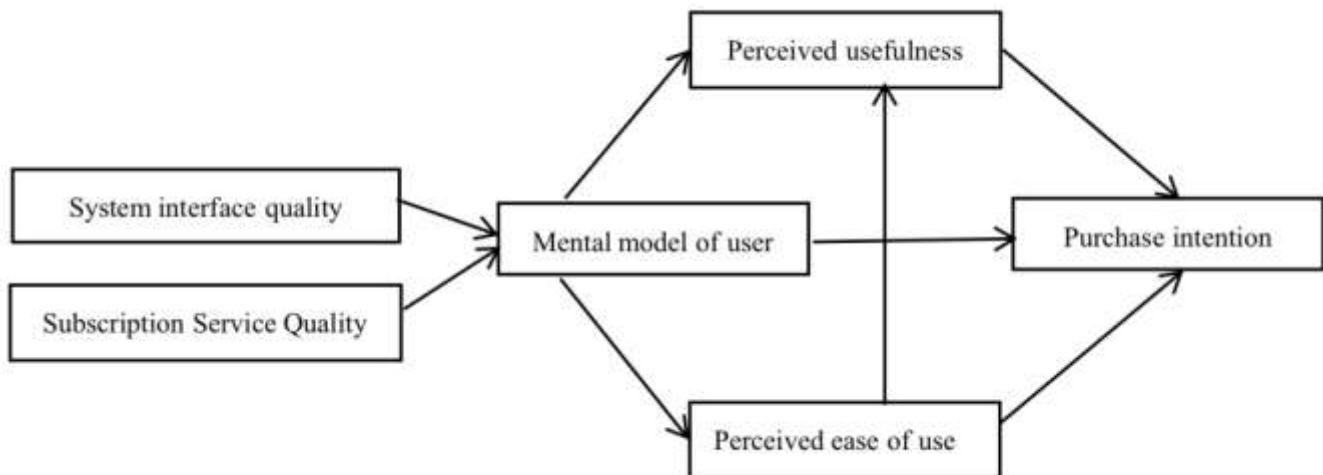
Figure 3-1 Conceptual Model

4. Research Design

4.1 Variable Definitions and Scales

In terms of the empirical study, research ideas and variables generated in practice need to undergo a process of conceptualization and transformation. The conceptual model in this paper mainly involves six research variables. Based on the previous reference of relevant scales, the researcher put forward the definition and scales of the research variables in the actual scenario.

4.1.1 Perceived Usefulness (PU)

In this paper, perceived usefulness is defined as the extent to which the image processing APP improves efficiency and facilitates communication. The scale of this variable is in Table 4-1.

Table 4-1 The scale of perceived usefulness

Variable	Items	Measurement issues	Sources
Perceived usefulness	PU-1	The subscription payment function of Meitu's image processing APP includes a one-click sharing operation, which can meet my need for sharing.	Davis et al. (1989)

	PU-2	The APP's subscription payment function allows for one-click shine removal, one-click smooth jawline, and other operations that meet my image processing needs.	Cui (2016)
	PU-3	The app's paid subscription function has a more comprehensive library of material and processing tools, increasing my willingness to share.	Zheng (2014)
	PU-4	The process of using the image processing APP can make me feel happy.	Carroll (1988)

4.1.2 Perceived Ease of Use (PEU)

This paper defines perceived ease of use as how users perceive that the image processing APP is simple and easy to implement. The scale of perceived ease of use is in Table 4-2.

Table 4-2 The scale of perceived ease of use

Variable	Items	Measurement issues	Sources
Perceived ease of use	PEU-1	The image processing APP is more accessible to operate than the PC.	Davis et al. (1989)
	PEU-2	The VIP subscription payment function can enhance the efficiency of image processing.	
	PEU-3	I don't think it takes much effort to get familiar with the subscription function of the APP.	
	PEU-4	I think the image processing APP interface is clear and straightforward to operate.	Bu (2021)

4.1.3 User Mental Model (MMU)

Combined with the image processing APP characteristics, the researcher defines the user mental model as the closeness of the product representation to the user's expectation. The scale of user mental model is in Table 4-3.

Table 4-3 The scale of user mental model

Variable	Items	Measurement issues	Sources
User mental model	MMU-1	I will choose the most straightforward way to process images, avoiding unnecessary actions.	Tao (2020)
	MMU-2	The image processing APP interface is very user-friendly in sorting functions, increasing my acceptance of the system.	Liu et al. (2012)
	MMU-3	The image processing APP is easy and smooth to operate and more in line with my expectations.	Norman (1983)
	MMU-4	The closer the function of the image processing APP is to my vision, the better it is for my operation.	Cooper (2007)

4.1.4 Quality of System Interface (QSI)

Combined with the characteristics of image processing APP, this paper divides the interface quality of the system into two dimensions, reasonable layout, and easy-to-learn function. The scale of system interface quality is in Table 4-4.

Table 4-4 The scale of system interface quality

Variable	Items	Measurement issues	Sources
Quality of system interface	QSI-1	I think the image processing APP interface has a good navigation pattern and easy-to-use functions.	Wixom & Todd (2005); Zhou (2011)
	QSI-2	I think the interface of the image processing APP system is well laid out and can enhance my user experience.	

| | QSI-3 | I think the system of image processing APP has a straightforward interface and does not interfere with user selection. | |
| | QSI-4 | I think the interface color scheme is unique and gives me visual and aesthetic enjoyment. | Huang et al. (2016); Jordan (2003) |

4.1.5 Subscription Service Quality (SSQ)

In this paper, the image processing APP's subscription service level factors include two dimensions, function acquisition and usage provided. On the one hand, the function acquisition mainly includes exclusive portrait functions like skin de-greasing, exclusive materials like stickers, and applicable parameter recommendations. On the other hand, the usage provided mainly includes a community platform, timely feedback, ad-free, and other membership rights. The scale of subscription service quality is in Table 4-5.

Table 4-5 The scale of subscription service quality

Variable	Items	Measurement issues	Sources
Quality of subscription service	QSS-1	The VIP subscription allows me to get timely feedback rights.	DeLone & McLean (2003)
	QSS-2	The VIP subscription can get more professional beauty services for me, such as orthodontics and intelligent wrinkle removal.	Cronin et al. (2000)
	QSS-3	The ad-free entitlement after the VIP subscription improves my user experience.	Liu et al. (2012)
	QSS-4	The VIP subscription service can make me feel efficient and effective.	Martin &Ibrahim (2006)
	QSS-5	The VIP subscription gives me access to exclusive styles, stickers, and other personalized services.	Zha et al. (2014)

(continued)

4.1.6 Purchase Intention (PI)

In this paper, the definition of purchase intention is the willingness of users to pay for a subscription when using the image processing APP of Meitu. The above analysis shows that most scholars agree with "willingness to repeat purchase" and "willingness to recommend". This paper will consider both willingness to purchase and willingness to recommend. The scale of purchase intention is in Table 4-6.

Table 4-6 The scale of purchase intention

Variable	Items	Measurement issues	Sources
Purchase intention	PI-1	I am considering purchasing an image processing APP subscription service.	Dodds et al. (1991)
	PI-2	I would recommend that people around me purchase the subscription service for the image processing App.	Cronin et al. (2000)
	PI-3	I want to give a positive rating to the subscription service of the image processing App.	Dong and Jin (2006)
	PI-4	I plan to renew my subscription to the image processing App.	Cronin et al. (2000)
	PI-5	After a comprehensive evaluation, I am still more likely to subscribe to the image processing service.	Zhu et al. (2011)

4.2 Questionnaire pretest

In order to avoid scientific problems and ensure the survey validity, this paper conducted a pretest before the official release of the questionnaire. The researcher distributed the pretest electronic version questionnaire to classmates and friends by Wenjuan com. Then 92 valid data among the 147 collecting questionnaires were analyzed for reliability and validity.

4.2.1 Validity Analysis

To analyze whether the research items can correctly represent the corresponding concepts, the researcher should complete KMO and Bartlett's test on the pretest data. The analysis results are presented in Table 4-7, indicating that there is a correlation between the question item variables, which meets the requirements of principal component analysis.

Table 4-7 Pretest- KMO and Bartlett's test[2]

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.871
Bartlett's Test of Sphericity	Approxi. Chi-Square	1640.157
	df	325.000
	Sig.	0.000***

Note: *** represents 1% level of significance.

Then the 26 components were then subjected to principal component extraction, and the number of factors was determined by analyzing the variance explained table. As shown in Table 4-8, at principal component 6, the eigenvalue is below 1, explaining the cumulative variance of 74.945%, consistent with our expectations.

Table 4-8 Pretest-Total variance explained[2]

	Initial Eigenvalue			Extraction of the sum of squares of loadings			Rotation Sums of Squared Loadings		
	Total	Variance %	CUM %	Total	Variance %	CUM %	Total	Variance %	CUM %
1	9.710	37.347	37.347	9.710	37.347	37.347	4.826	18.56	18.56
2	3.306	12.716	50.063	3.306	12.716	50.063	3.769	14.496	33.056
3	2.810	10.808	60.872	2.810	10.808	60.872	3.299	12.689	45.744
4	1.681	6.466	67.338	1.681	6.466	67.338	3.207	12.336	58.08
5	1.195	4.597	71.934	1.195	4.597	71.934	3.051	11.736	69.816
6	0.783	3.011	74.945	0.783	3.011	74.945	1.333	5.129	74.945
7	0.633	2.434	77.378						
8	0.604	2.323	79.702						
9	0.531	2.043	81.744						
10	0.508	1.953	83.697						
11	0.468	1.802	85.499						
12	0.459	1.767	87.265						
13	0.411	1.582	88.848						
14	0.353	1.357	90.205						
15	0.339	1.302	91.507						
16	0.296	1.137	92.644						
17	0.280	1.077	93.721						

18	0.265	1.019	94.74						
19	0.248	0.955	95.695						
20	0.222	0.853	96.548						
21	0.192	0.739	97.287						
22	0.184	0.706	97.993						
23	0.156	0.599	98.592						
24	0.135	0.519	99.111						
25	0.130	0.501	99.611						
26	0.101	0.389	100.0						
Extraction method: principal component analysis.									

(continued)

Then the researcher used the Kaiser Varimax rotation method, and the results of the analysis are in Table 4-9. It indicates that each question item only has a factor loading over 0.5 in its corresponding factor and less than 0.5 in all other factors. The factor structure was clear, suggesting that the convergent validity and discriminant validity of each variable met the requirements.

Table 4-9 Pretest-Component matrix after rotation

	Components					
	1	2	3	4	5	6
QSI-1			0.819			
QSI-2			0.840			
QSI-3			0.867			
QSI-4			0.816			
QSS-1		0.817				
QSS-2		0.782				
QSS-3		0.855				
QSS-4		0.800				
QSS-5		0.835				
PU-1				0.788		
PU-2				0.807		
PU-3				0.829		
PU-4				0.842		
PI-1	0.846					
PI-2	0.800					
PI-3	0.786					
PI-4	0.675					
PI-5	0.662					
PEU-1						0.543
PEU-2						0.577
PEU-3						0.567
PEU-4						0.560
MMU-1					0.773	
MMU-2					0.774	
MMU-3					0.759	
MMU-4					0.770	
Extraction method: Principal Component Analysis						
Rotation method: Kaiser Varimax (Maximal rotation of variance)						
a. The rotation has converged after 6 iterations.						

(continued)

4.2.2 Reliability Analysis

In pretest of questionnaire, this paper analyzed the CITC and Cronbach's Alpha to assist in determining whether the scale's questions needed to be modified. As shown in Tables 4-10, it indicates that the scale is of validity and it is recommended to retain each question item.

Table 4-10 Pretest-Results of reliability analysis

Constructs	Items	Cronbach's Alpha	CITC	Item deleted Cronbach's Alpha
System interface quality	QSI-1	0.899	0.787	0.865
	QSI-2		0.790	0.864
	QSI-3		0.771	0.871
	QSI-4		0.753	0.878
User mental model	MMU-1	0.870	0.768	0.815
	MMU-2		0.720	0.835
	MMU-3		0.720	0.834
	MMU-4		0.686	0.848
Subscription service quality	QSS-1	0.900	0.748	0.879
	QSS-2		0.736	0.881
	QSS-3		0.751	0.878
	QSS-4		0.757	0.876
	QSS-5		0.763	0.875
Perceived usefulness	PU-1	0.881	0.717	0.858
	PU-2		0.779	0.833
	PU-3		0.752	0.844
	PU-4		0.728	0.855
Perceived ease of use	PEU-1	0.882	0.718	0.863
	PEU-2		0.790	0.832
	PEU-3		0.764	0.842
	PEU-4		0.716	0.860
Purchase intention	PI-1	0.892	0.784	0.857
	PI-2		0.781	0.858
	PI-3		0.746	0.867
	PI-4		0.704	0.877
	PI-5		0.677	0.881

(continued)

5. Data Analysis and Model Validation

5.1 Sample Collection and Descriptive Statistics

The target population of this paper is people who have used the VIP subscription of Meitu's image processing APP. In the formal research stage, electronic questionnaires were distributed through Wenjuan.com. In addition to WeChat and Weibo friends' forwarding in the small sample test, the distribution channels were mainly in the "Dream of Image" WeChat group, landscape photography exchange group in Xiaohongshu APP, and Xiamen dating photography exchange group. After excluding those questionnaires that do not meet the requirements, there are 319 valid questionnaires, with a recovery rate of 82.4%. The descriptive statistical analysis of the survey sample is in Table 5-1.

Table 5-1 Descriptive statistical analysis of formal research

Measure	Items	Frequency(n = 319)	Percentage (%)
Gender	Male	103	32.3
	Female	216	67.7
Age	Under 18	7	2.2
	18-24	218	68.3
	25-30	92	28.8
	31-40	2	0.7
	41-50	0	0
	51-60	0	0
	above 60	0	0
Career	Students	226	70.8
	Government officials/Civil Servant	3	0.9

Corporate managers		34	10.8
Ordinary office staff		33	10.3
Professionals(e.g.,doctors/lawyers/writers/journalists/teachers, etc.)		23	7.2

As can be seen from Table 5-1, the age of the survey respondents is mainly 18-24 years old, followed by 25-30 years old; the ratio of men to women is about 3:7. The sample is mainly young women, which is close to the ratio of men to women in previous studies of image beautification products. Furthermore, it is in line with the target customer orientation of Meitu. In addition to school students, the sample also involves a certain proportion of social groups. It has a wide occupational distribution, among which there are more corporate managers and general employees, accounting for 21.1% of the total. In conclusion, the sample distribution of this study is relatively wide, in line with the characteristics of randomness and universality.

5.2 Exploratory Factor Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.899
Bartlett's Test of Sphericity	Approxi. Chi-Square	4394.489
	df	325.000
	Sig.	0.000***

Then the 26 components were then subjected to principal component extraction, and the number of factors was determined by analyzing the variance explained table. The analysis results are in Table 5-3, where six components with eigenvalues greater than one were analyzed, explaining the cumulative variance of 69.726%, consistent with our expectations.

Table 5-3 Total variance explained[2]

	Initial Eigenvalues			Extraction of the sum of squares of loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	CUM %	Total	% of Variance	CUM %	Total	% of Variance	CUM %
1	7.649	29.419	29.419	7.649	29.419	29.419	3.366	12.947	12.947
2	3.738	14.377	43.796	3.738	14.377	43.796	3.240	12.461	25.408
3	2.135	8.212	52.008	2.135	8.212	52.008	2.988	11.494	36.902
4	1.790	6.886	58.894	1.790	6.886	58.894	2.914	11.207	48.109
5	1.425	5.479	64.373	1.425	5.479	64.373	2.901	11.158	59.267
6	1.392	5.352	69.726	1.392	5.352	69.726	2.719	10.459	69.726
7	0.634	2.437	72.163						
8	0.573	2.204	74.367						
9	0.541	2.082	76.449						
10	0.523	2.013	78.462						
11	0.505	1.944	80.406						
12	0.484	1.861	82.267						
13	0.446	1.714	83.981						
14	0.428	1.647	85.628						
15	0.422	1.623	87.251						
16	0.390	1.500	88.751						
17	0.386	1.485	90.236						
18	0.363	1.396	91.632						
19	0.339	1.303	92.934						
20	0.305	1.172	94.106						
21	0.299	1.149	95.255						
22	0.285	1.094	96.349						
23	0.276	1.060	97.410						
24	0.247	0.950	98.360						

25	0.219	0.843	99.202						
26	0.207	0.798	100.000						
Extraction method: Principal Component Method									

Then the researcher used the Kaiser Varimax rotation method, and the results of the analysis are in Table 5-4. It indicates that the factor structure is clear, and each question item only has a factor loading over 0.5 in its corresponding factor and less than 0.5 in all other factors.

Table 5-4 Component matrix after rotation

	Components					
	1	2	3	4	5	6
QSI-1			0.833			
QSI-2			0.809			
QSI-3			0.789			
QSI-4			0.776			
QSS-1		0.752				
QSS-2		0.702				
QSS-3		0.769				
QSS-4		0.702				
QSS-5		0.745				
PU-1				0.793		
PU-2				0.791		
PU-3				0.780		
PU-4				0.825		
PI-1	0.793					
PI-2	0.813					
PI-3	0.814					
PI-4	0.708					
PI-5	0.810					
PEU-1						0.801
PEU-2						0.818
PEU-3						0.749
PEU-4						0.744
MMU-1					0.825	
MMU-2					0.845	
MMU-3					0.780	

MMU-4				0.809	

Extraction method: Principal Component Analysis

Rotation method: Kaiser Varimax (Maximal rotation of variance)

a. The rotation has converged after 6 iterations.

5.3 Confirmatory Factor Analysis

Based on the study of Confirmatory factor analysis by Ming-Lung Wu (2009), the researcher analyzed the reliability and validity of the model in this paper. By running AMOS 24.0, the researcher obtained standardized factor loadings of each measure greater than 0.45. The relationship diagram of confirmatory factor analysis plotted is shown in Figure 5-1.
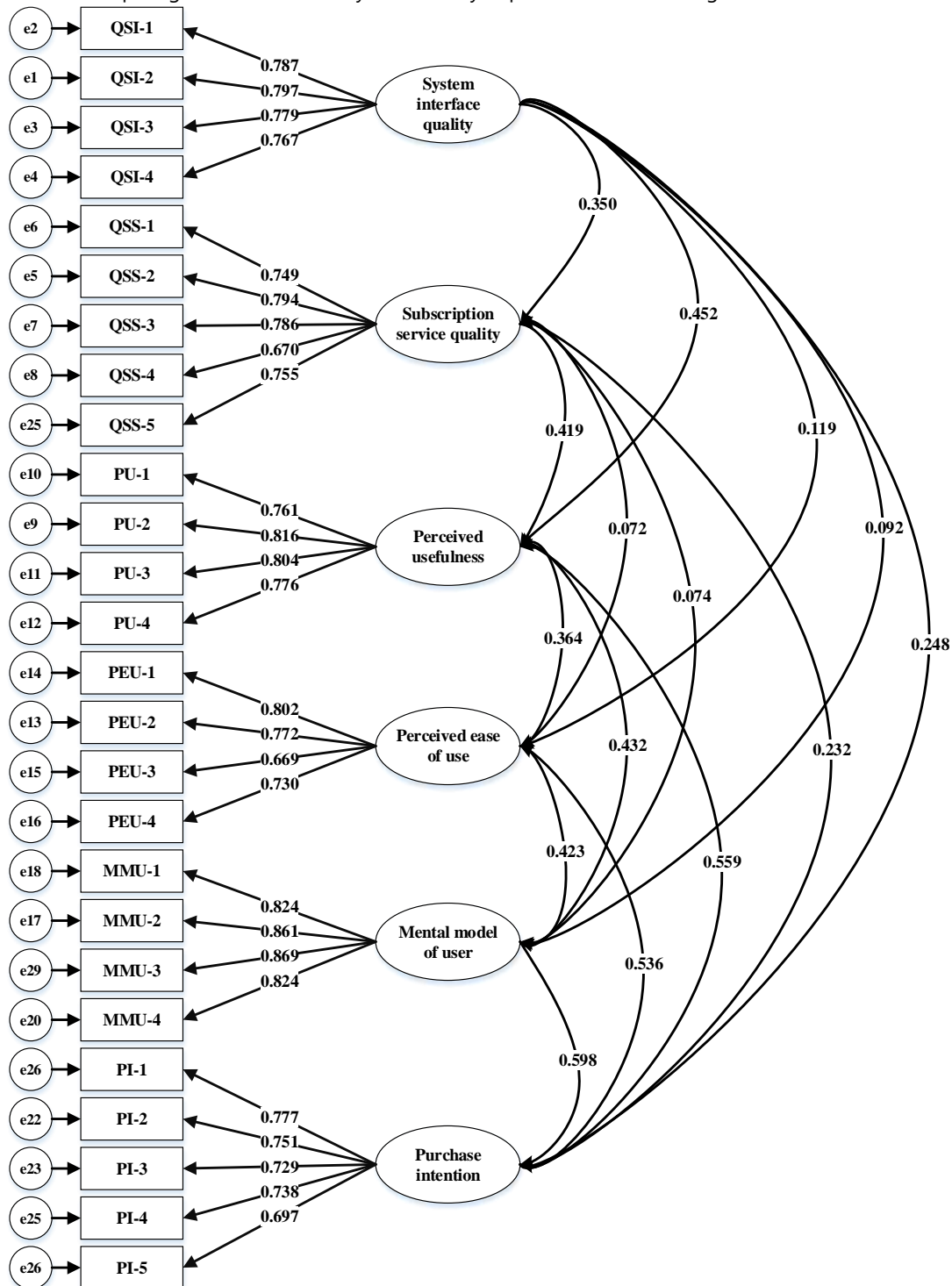
Figure 5-1 Relationship diagram of confirmatory factor analysis

5.3.1 Reliability and Convergent Validity Analysis

Combining the Standardized factor loadings of each measured item, the researcher calculated Average Variance Extracted (AVE) values and the Composite Reliability according to the correlation formula. As shown in Tables 5-5, all of the above indicators met the relevant criteria for reliability and convergent validity.

Table 5-5 Reliability and Convergent validity analysis

Items		Constructs	Standardized loadings	AVE	CR
QSI-1	<--	System interface quality	0.787		
QSI-2	<--	System interface quality	0.797		
QSI-3	<--	System interface quality	0.779	0.612	0.863
QSI-4	<--	System interface quality	0.767		
QSS-1	<--	Subscription Service Quality	0.749		
QSS-2	<--	Subscription Service Quality	0.794		
QSS-3	<--	Subscription Service Quality	0.786	0.566	0.867
QSS-4	<--	Subscription Service Quality	0.670		
QSS-5	<--	Subscription Service Quality	0.755		
PU-1	<--	Perceived usefulness	0.761		
PU-2	<--	Perceived usefulness	0.816		
PU-3	<--	Perceived usefulness	0.804	0.623	0.869
PU-4	<--	Perceived usefulness	0.776		
PEU-1	<--	Perceived ease of use	0.802		
PEU-2	<--	Perceived ease of use	0.772		
PEU-3	<--	Perceived ease of use	0.669	0.555	0.832
PEU-4	<--	Perceived ease of use	0.730		
MMU-1	<--	User Mental Model	0.824		
MMU-2	<--	User Mental Model	0.861		
MMU-3	<--	User Mental Model	0.869	0.714	0.909
MMU-4	<--	User Mental Model	0.824		
PI-1	<--	Purchase intention	0.777		
PI-2	<--	Purchase intention	0.751		
PI-3	<--	Purchase intention	0.729	0.546	0.857
PI-4	<--	Purchase intention	0.738		
PI-5	<--	Purchase intention	0.697		

5.3.2 Discriminant Validity Analysis

The researcher conducted the AVE analysis based on Ping's (2004) findings on discriminant validity. By running AMOS 24.0, we calculated the correlations between constructs. Table 5-6 shows that all the values on the diagonal are more significant than any other number in the same row, suggesting that all the constructs have higher discriminant validity.

Table 5-6 AVE method for evaluating the correlations between constructs

	Purchase intention	Perceived usefulness	Perceived ease of use	User Mental Model	Subscription Service Quality	System interface quality
Purchase intention	0.938					
Perceived usefulness	0.605	1.089				
Perceived ease of use	0.603	0.512	1.347			
User Mental Model	0.659	0.549	0.515	1.480		

| Subscription Service Quality | 0.228 | 0.078 | 0.085 | 0.518 | 1.029 | |
| System interface quality | 0.257 | 0.102 | 0.148 | 0.587 | 0.379 | 1.140 |

Note. Diagonal elements are the square root of each construct's AVE.

5.4 Structural Equation Modeling

In order to further verify the rationality of the model settings and the actual effects of the factors, this paper uses structural equations. The equation model performed the path analysis and mediating effect analysis between variables. The researcher plotted the structural equation model and imported the sample data using AMOS 24.0.
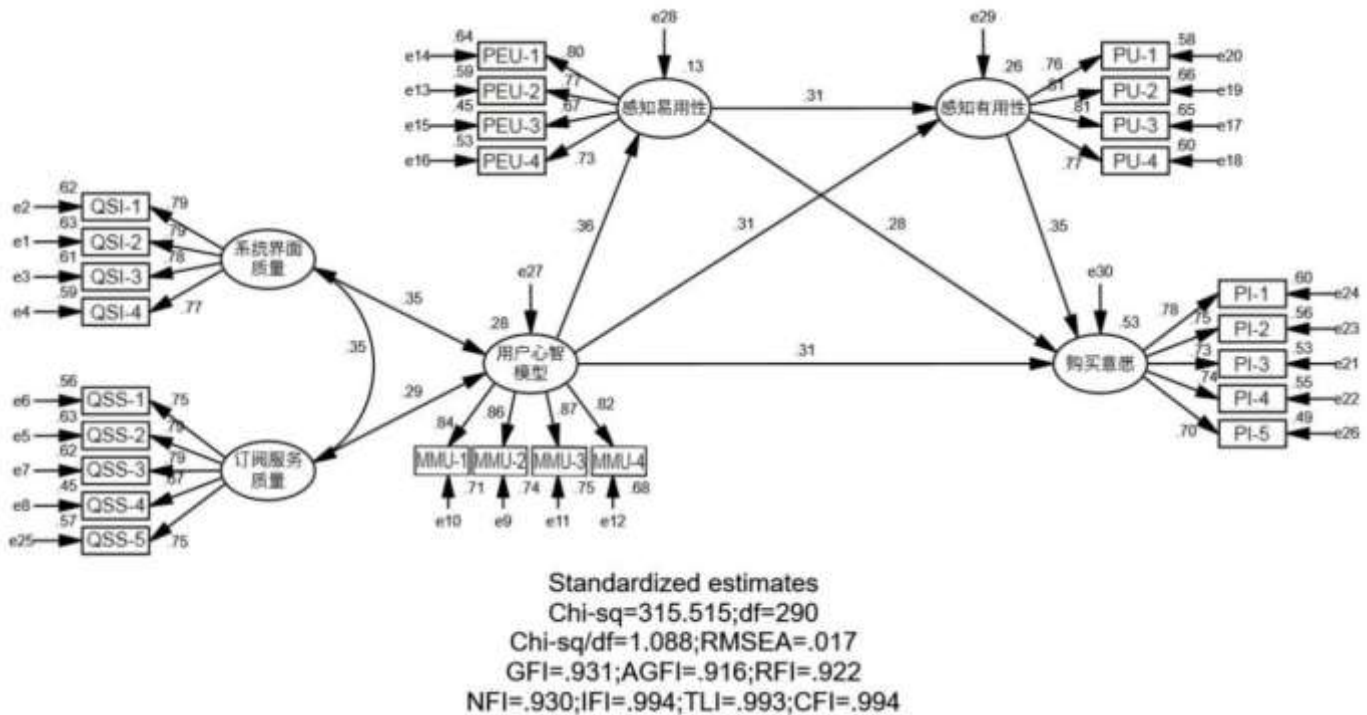

Standardized estimates
Chi-sq=315.515;df=290
Chi-sq/df=1.088;RMSEA=.017
GFI=.931;AGFI=.916;RFI=.922
NFI=.930;IFI=.994;TLI=.993;CFI=.994

Figure 5-2 Structural equation model diagram

5.4.1 Analysis of Model Fitness Indicators

According to the analysis of model fitness comparison by Wu (2009), this paper verifies the model's fitness from three types of indicators in the independent case. In evaluating the fitness of structural equation models, since there are many fitness indicators and some conflict with each other, the model only needs to satisfy most of them, and the unsatisfied indicators are close to the critical values to determine the goodness of fit.

By running AMOS24.0 to derive each indicator of the model, this paper selected 12 more commonly used fit indicators for testing. As shown in Tables 5-7, all the indicators meet the relevant requirements, except for the RMR value, which does not meet the requirements for satisfying the state. It can be inferred that the research model in this paper has a good model fitness.

Table 5-7 Table of model fit indices

Fit index	Recommended values	Actual values	Conditions
Absolute fit index			
X^2	The smaller the better	306.682	Satisfied
df (degrees of freedom)	The bigger the better	284	Satisfied
GFI value	>0.90	0.932	Satisfied

AGFI value	>0.80	0.916	Satisfied
RMSEA value	<0.08	0.016	Satisfied
RMR value	<0.05	0.070	Unsatisfied
Value-Added fit index			
IFI value	>0.90	0.995	Satisfied
TLI value	>0.90	0.994	Satisfied
CFI value	>0.95	0.995	Satisfied
Minimalist fit index			
AIC value	The smaller the better	440.682	Satisfied
NC=X^2 /df	1<NC<3	1.080	Satisfied
ECVI value	The smaller the better	1.386	Satisfied

5.4.2 Path Analysis

After analyzing the reliability, validity, and model fit indices, this paper conducted path analysis using AMOS 24.0. Table 5-8 shows that standardized path coefficients of all paths reached a significant level (P<0.05). Therefore, hypotheses H1, H2, H3, H4, H5, H9, and H10 in this study are supported.

Table 5-8 Path analysis results

Path			Estimate	S.E.	C.R.	P	Sig.
User Mental Model	<--	System interface quality	0.395	0.072	5.471	***	Yes
User Mental Model	<--	Subscription Service Quality	0.354	0.075	4.707	***	Yes
Perceived ease of use	<--	User Mental Model	0.343	0.061	5.660	***	Yes
Perceived usefulness	<--	User Mental Model	0.268	0.054	4.921	***	Yes
Perceived usefulness	<--	Perceived ease of use	0.278	0.060	4.646	***	Yes
Purchase intention	<--	Perceived usefulness	0.325	0.060	5.422	***	Yes
Purchase intention	<--	Perceived ease of use	0.231	0.051	4.484	***	Yes
Purchase intention	<--	User Mental Model	0.247	0.047	5.252	***	Yes

5.4.3 Mediation Effect Test

This paper analyzed the mediating role of perceived ease of use and usefulness using SPSS 28.0 software based on the hierarchical regression method proposed by Baron and Kenny (1986)**Error! Reference source not found.**.

Table 5-9 Hierarchical Regression Analysis

	Perceived ease of use	Perceived usefulness		Purchase intention	
	Model 1	Model 2	Model 3	Model 4	Model 5
User Mind Model	0.304***	0.358***	0.277***	0.416***	0.247***
Perceived ease of use			0.267***		0.225***
Perceived usefulness					0.279***
R^2	0.103	0.146	0.212	0.241	0.416
ΔR^2	0.103	0.146	0.066	0.241	0.075
F	36.469***	54.401***	42.526***	100.531***	74.836***

As shown in Tables 5-9, Model 5 indicates that when adding user mental models, perceived usefulness, and perceived ease of use simultaneously, the positive effect of user mental models on purchase intention is diminished but still significant (β=0.247, p<0.001). According to the mediation test procedure proposed by Wen Zhonglin, Zhang Lei, Hou Jietai and Liu Hongyun (2004), Model 5 suggests that perceived usefulness and perceived ease of use partially mediate the relationship between user mental models and purchase intentions**Error! Reference source not found.**.

Then this paper tested the significance of the mediation effect by SPSS 28.0 using the Bootstrap method, with a sample of 5000 times taken.

Table 5-10 Bootstrap test for mediation effect

Paths	Effect	BootSE	BootCI lower limit	BootCI upper limit	Effectiveness Ratio
lnd1:User Mental Model - Perceived Ease of Use - Purchase Intention	0.069	0.016	0.039	0.102	16.50%
lnd2:User Mental Model - Perceived Usefulness - Purchase Intention	0.077	0.018	0.045	0.117	18.55%
lnd3:User Mental Model - Perceived Ease of Use - Perceived Usefulness - Purchase Intention	0.023	0.006	0.012	0.037	5.44%
Total mediating effect:	0.168	0.027	0.118	0.224	40.49%
lnd1+lnd2+lnd3					
Contrast mediating effect: lnd1-lnd2	-0.010	0.029	-0.069	0.045	-

As shown in Tables 5-10, path one indicates that the mediation effect of perceived ease of use between user mental model and purchase intention is 0.069. The Bootstrap 95% confidence interval is [0.039, 0.102], which does not contain 0, suggesting that the mediation effect of perceived ease of use between user mental model and purchase intention is significant, further proving hypothesis H7. In path 2, the mediating effect of perceived usefulness between the user's mental model and purchase intention is 0.077. The Bootstrap 95% confidence interval is [0.045, 0.117], which does not contain 0, further proving the hypothesis H6. In path 3, the mediating chain effect of perceived ease of use-perceived usefulness is 0.023, and the Bootstrap 95% confidence interval is [0.012, 0.037], which does not contain 0, indicating that the chain mediation effect is significant, further proving the hypothesis H8. Furthermore, the difference between path one and path 2 is -0.010, and the Bootstrap 95% confidence interval is [-0.069, 0.045], which contains 0, indicating that the intermediary effects were not significantly different from each other.

In this study, perceived ease of use and usefulness are partially mediated significantly between users' mental model and purchase intention, and the chain mediation effect of perceived ease of use-perceived usefulness between users' mental model and purchase intention is significant. Therefore, hypotheses H6, H7, and H8 are all valid.

6. Research Conclusions and Prospects
6.1 Research Findings
In this paper, the hypothetical model of the purchase intention of the subscription service of the Image Processing App of Meitu was constructed based on six critical concepts. The researcher collected 319 valid questionnaires, and with this data using the structural equation modeling method, the hypothetical model was validated using tools such as SPSS28.0 and AMOS24.0 software. The following are the validated results and modeling.

Table 6-1 Summary of hypothesis testing results

	Hypothesis	Testing results
H1	The perceived usefulness of using an image processing APP can positively influence purchase intention.	validated

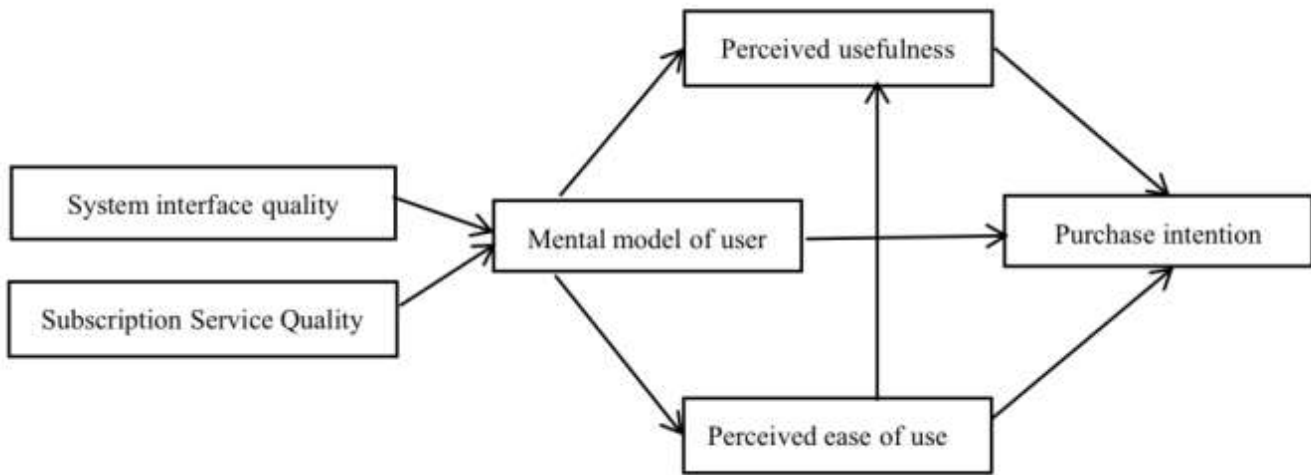| H2	The perceived ease of use when using an image processing APP can positively influence purchase intention.	validated
H3	Perceived ease of use when using an image processing APP positively affects perceived usefulness.	validated
H4	User mental model of image processing APP positively influence perceived usefulness.	validated
H5	User mental model of image processing APP positively influence perceived ease of use.	validated
H6	Perceived usefulness mediates between users' mental model and purchase intention.	validated
H7	Perceived ease of use mediates between the user's mental model and purchase intention.	validated
H8	The user mind model influences purchase intention through the chain mediating effect of perceived ease of use-perceived usefulness.	validated
H9	The system interface quality of the image processing APP positively affects user mental models.	validated
H10	Subscription service quality of image processing APP positively affects users' mental model.	validated

Figure 6-1 Validated model

(1) The system interface quality positively influences the user mental model; the subscription service quality positively influences the user mental model. The path analysis concludes that system interface quality and subscription service quality positively influence the mental model user in the validated model. It indicates that improving system interface quality and subscription service quality of image processing APP can effectively shape the user's mental model.

(2) Mental model of users positively affects purchase intention; perceived usefulness positively affects purchase intention; perceived ease of use positively affects purchase intention. It can be concluded from the path analysis that all the above three variables can directly influence purchase intention.

(3) Perceived usefulness-perceived ease of use mediates the chain effect between user mental models and purchase intention. By verifying the chain mediation effect through hierarchical regression analysis and the Bootstrap method, we can conclude that users' mental model significantly influences purchase intention through perceived ease of use and perceived usefulness, as well as the chain mediating path between them.

6.2 Practice Insights and Management Recommendations
According to the research findings summarized above, these findings will be of general use to improve the overall user subscription rate, enhancing the company's commercial realizations. The following are insights and recommendations for Meitu.

(1) Increase the investment in scientific research to create cutting-edge products.
Meitu established the Meitu Imaging Lab MTlab in 2010, whose core research interests are computer vision, deep learning, computer graphics, and other areas related to artificial intelligence. As consumers' demand for personalized and accurate product services increases, this trend also places higher demands on the technological strength of image processing APP development. The company should continuously increase its investment in scientific research to drive its business development with core

technological innovation, thus increasing the willingness of users to pay for subscriptions. First of all, as to the system interface quality of the image processing APP, Meitu should pay attention to optimizing the interface design to bring users aesthetic enjoyment. Make sure the interface layout is clear, and the interface color is reasonable. At the same time, Meitu should pay attention to the rationalization of the system interface navigation mode and function sorting settings. It is easier for users to use the image processing functions and meet a better user experience. Second, in actual use, the quality of the subscription service of the image processing APP is the core of attracting and retaining users, so the professionalism and personalized upgrade of the subscription service should be emphasized. Through subscription, users should have access to more efficient image processing functions to improve the efficiency of image processing; develop richer material resources to meet different user needs. At the same time, Meitu should establish at least one user feedback channel to improve user experience.

(2) Dig deeper into the user's needs and occupy the user's mind.

For APP users, image processing is an added-value and feeling-based service. It is significant for Meitu to occupy users' minds for a long time and improve the overall user subscription rate. First of all, in the era of social media, the communication between developers and users is no longer a one-way information transfer. However, Meitu should establish a bridge between enterprises and users. Enterprises should pay attention to customers' opinions and feedback, continuously optimize the functions of products, increase users' acceptance of the system, and form an inertial psychological perception of products and services. Secondly, enterprises should guide and cultivate the minds of potential consumers by following their strategic goals and market choices. The user's mind formed for a brand or product is not innate or fixed, and the user's mind determines their behavior and attitude toward the product they use. Companies should follow their target audiences' diversified and extreme aesthetic needs, dig deeper into the user's psychology and behavior, understand the user's conception, and ultimately gain love and recognition.

(3) Promote subscription payment and lead the industry.

Subscription payment has become a trend on the Internet, and related companies in the image processing industry have also launched related subscription services. More and more young people are willing to purchase digital paid services. With a huge user base, Meitu has launched VIP subscriptions on several image processing application platforms on top of its free services. Meitu should promote subscription payment and lead the industry to create a better and more comprehensive service for users to become beautiful. First, in the process of user conversion, the company can understand users' tendency to subscribe and achieve accurate user targeting. The company can target to promote paid subscription trial features to users based on their past feature usage records and usage habits. Secondly, try to stratify the paid services and segment the membership tiers. There are many kinds of domestic image processing APPs, and the lower conversion cost brings challenges to the development of enterprises. Enterprises can introduce different paid subscriptions according to users' activity and consumption records to increase users' willingness to pay for subscriptions.

Conflicts of Interest: The authors declare no conflict of interest.

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