THE FACTORS INFLUENCING USER SATISFACTION WITH ONLINE EDUCATION PAYMENT PLATFORMS: A CASE STUDY OF HIMALAYA PLATFORM

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This Independent Study Has Been Approved as a Partial Fulfillment of the Requirements for the Degree of Master of Business Administration

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ABSTRACT

With the widespread acceptance of online learning methods and strong support from national policies, the market size of online education has rapidly expanded. However, issues such as low repurchase rates and low user engagement have gradually emerged in the development of online education payment platforms. Users' willingness to continuously pay for services significantly impacts these platforms. Therefore, this study focused on exploring the factors influencing user satisfaction with continued use of knowledge-based paid platforms.

The objectives of this study are: (1) To explore the key factors affecting user satisfaction with continuous use of online education payment. (2) To examine the influence of quality of information, system quality, and service quality of online education payment platforms on user satisfaction. This study used the "Himalaya" online education platform as a case and employed quantitative research methods. Data were collected through a questionnaire survey, yielding a total of 368 valid questionnaires.

The research results show that: (1) User satisfaction with online education payment platforms is influenced by the quality of information, system quality, and service quality of the platform; (2) Information quality, system quality, and service quality all significantly positively impact user satisfaction.

Understanding the factors affecting user satisfaction with continuous use of online education payment platforms is crucial for retaining the user base. This study provides feasible suggestions for knowledge-based paid platforms to enhance user engagement and repurchase rates.

Keywords: online education payment platforms, user satisfaction, continuous use

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Cui Boyu

DECLARATION

I, CUI BOYU, as a result of this, certify that the work embodied in this, independent study entitled **"The Factors Influencing User Satisfaction with Online Education Payment Platforms: A Case Study of Himalaya Platform "** *is a result of original research and has not been submitted for a higher degree to any other university or institution.*

(Cui Boyu)
MAR 8, 2025

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Chapter 1 Introduction

1.1 Background of the Study

In the context of the comprehensive penetration of "Internet Plus," traditional industries are exploring transformation paths by integrating with the Internet. As a typical traditional service industry, education services have also begun to seek innovation in recent years, continuously exploring development paths that integrate with the Internet. With the maturity of internet technology and the rapid popularization of internet applications, people's adoption of online education has gradually increased. At the same time, the Chinese government has been increasing its support for the education sector and the education industry year by year (Li, 2019).Thanks to stable market demand and a favorable policy environment, China's online education market has developed rapidly（Chen et al., 2020）. Relevant data shows that in 2017, the number of online education users in China reached 155.18 million, an increase of 17.54 million from the previous year, with an annual growth rate of 12.7%. Among these, the number of paying users accounted for 70% of the total user base.

The rapid expansion of the online education market and the booming development of the online education industry have attracted many enterprises to enter this field. Statistics show that in 2013, an average of 2.6 new online education enterprises were established every day (Liu, 2015). Subsequently, with the quick involvement of internet giants like Baidu, Alibaba, and Tencent, the online education market has flourished. According to forecasts by the China Industry Research Report Network, the online education market size will reach 269.26 billion yuan by 2029.

Therefore, the way people obtain information has quietly changed. They fear being left behind by the times, which has led to a vision of lifelong learning. In the past, knowledge products were in the form of books, and people learned by purchasing books. Now, the form of knowledge products has changed from books to various forms such as audio and video. The rise of online education payment platforms perfectly meets the needs of modern people (Liu et al., 2022).

Although online education has become one of the hottest concepts on the internet today, with sustained investment enthusiasm from the industry and the continuous expansion of market scale, it has always struggled to achieve widespread commercial success. How to enhance the continuous usage behavior of paying users has become a focal point for both academic research and practical fields. Therefore, online education companies must strive to improve the quality of information in their products, innovate their content, and enhance service quality to better boost users' online education payment platforms. This will enable them to quickly and effectively compete for user resources and market share in an increasingly competitive environment.(Chen & Bao, 2014)

Why choose Himalaya as the research subject? This study considers Himalaya to

be one of the earliest knowledge payment platforms, and the wave of knowledge payment has shaped its current status. According to the "2018-2019 Content Payment Industry White Paper" released by the authoritative third-party institution Xinzhi List, Himalaya accounted for more than 50% of content consumption products in 2018 (Yun, 2019). According to the "2019 China Online Audio-Visual Development Research Report," Himalaya maintained a user penetration rate of 62.8% with its rich and high-quality content, far surpassing other platforms in the knowledge payment industry. Therefore, this study considers it representative to investigate the factors influencing users' continuous payment intention on knowledge payment platforms using Himalaya as an example.

1.2 Questions of the Study

The concept of paid education emerged not because there is a scarcity of resources on the internet, but because there is an abundance of free resources online. Given that people can easily access various free resources through the internet, why would they choose to pay? This relates to the dual demand for knowledge. On one hand, internet technology has reduced the cost of information dissemination, leading to an overwhelming amount of free information online. The cost for individuals to filter out useful information for themselves is increasing. On the other hand, the form of knowledge products has evolved from books to various formats such as audio and video. The rise of online education payment platforms precisely meets the needs of modern people.

Based on the current usage status of online education payment platform users and existing research, this study aims to explore the following research questions:

1. What are the key factors influencing users, satisfaction with online education payment platforms?

2. Is there a positive correlation between the information quality, system quality, and service quality of online education payment platforms and users' satisfaction with online education payment platforms?

1.3 Objectives of the Study

This research hopes to assist knowledge payment platforms in optimizing their services during development and ultimately formulating targeted strategies to enhance user engagement and repurchase rates.

The specific research objectives are as follows:

1. To explore the factors influencing user satisfaction with online education payment platforms.

2. To determine the impact of information quality, system quality, and service quality of the platform on user satisfaction with online education payment platforms.

1.4 Scope of the Study

The link to the survey Include-objective varieties under the study method,

questionnaire and its QR code were distributed via social media platforms such as WeChat and QQ, which have a large user base. Friends were also invited to fill out the questionnaire and share it. In total, 445 survey questionnaires were collected over a period of three months, from February 2024 to May 2024, spanning 91 days. After the data collection phase, the research team eliminated invalid survey questionnaires based on pre-set criteria. Ultimately, 368 valid survey questionnaires were obtained, with an effective rate of 86.7%.

1.5 Significance of the Study

Firstly, understanding the primary factors influencing user satisfaction can help online education companies retain existing users, attract potential users, and create future users, thereby maximizing business benefits.

In the era of the knowledge economy, the effective operation of online education companies contributes to addressing the current imbalance in educational resources between regions and between urban and rural areas in China. It facilitates the balanced development of educational resources. Moreover, the development of online education also promotes the rapid realization of universal education and modernization in China.

Therefore, the effective operation of online education companies not only addresses the current imbalance in educational resources but also promotes the balanced development of educational resources. Furthermore, it accelerates the realization of universal education and modernization in China, aligning with the developmental trends under the knowledge economy era.

Secondly, understanding these factors helps to enhance users' repurchase rate of products on online education payment platforms, promoting their sustainable and healthy development.

The rise of paid educational platforms is not accidental. In the internet era, the sharing economy has gradually become a part of the Chinese economy. Although there is fierce competition among domestic online education payment platforms, the overall prospects for the paid education industry remain promising. Therefore, for any online education payment platform, retaining users and increasing their repurchase rate of online education products are paramount. Based on this foundation, online education payment platforms must innovate in platform services, content, and explore the factors influencing users' continuous payment intention.

This study selects the representative "Himalaya" platform as a case to investigate the factors influencing users' satisfaction with online education payment platforms. It aims to provide guidance for the development and innovation of online education payment platforms, offering recommendations on how to improve user repurchase rates and stickiness towards knowledge products. This is of practical significance for the sustainable and healthy development of online education payment platforms.

1.6 Definition of Key Terms

1. Platform Information Quality

Platform information quality refers to the degree to which the content provided by the online education payment platform is accurate, relevant, timely, and useful to users.

It encompasses the richness and depth of course content, the speed of information updates, the reliability of information, and the interactivity and personalization of the learning experience. Information quality is measured through user satisfaction with the accuracy, professionalism, practicality, and comprehensiveness of the course content, as well as the timeliness of updates and the safety of the platform's operations.

2. Platform System Quality

Platform system quality refers to the technical performance and usability of the online education payment platform, including its stability, ease of use, compatibility, and response speed. It measures how well the platform functions technically, ensuring that users can access and navigate the platform without encountering frequent crashes, slow loading times, or other technical issues.

3. Platform Service Quality

Platform service quality refers to the level of support and assistance provided by the online education payment platform to its users, including customer service responsiveness, feedback mechanisms, and the overall user experience. It encompasses the reliability of customer service, the timeliness of responses, the accuracy of answers, and the personalization of services such as course recommendations.

4. Satisfaction with Online Education Payment Platforms

Satisfaction with online education payment platforms refers to the degree to which users are satisfied with their overall experience on the online education payment platforms, leading to their intention to continue using and paying for the platform's services. It is influenced by the perceived value of the platform's content, system performance, and service quality.

Chapter 2 Literature Review

2.1 Introduction

This study uses the user-centred design theory, the information systems success theory, and user satisfaction theory as the basis for identifying factors influencing users' satisfaction with online education payment platforms. By employing a literature review approach, it seeks to clarify the factors influencing user satisfaction, aiming to understand the relationship between this study and existing literature research, grasp the development context of research, and lay a theoretical foundation.

The factors influencing users' satisfaction with online education payment platforms involve multiple theoretical bases, including social psychology, marketing, and consumer behavior.

2.2 Literature Review

2.2.1 Education Platform Payment

As a burgeoning phenomenon, payment for online education platforms has garnered widespread attention from academia. The development of paid education platforms has spanned four to five years since 2016, experiencing explosive growth during this period. However, it is still in an imperfect stage.

There has been a significant increase in research on online education platform payments since 2016. Referring to the definition of the sharing economy by the Informationization Department of the National Information Center, knowledge payment is considered a new mode of information interaction (Zhang et al, 2017). In essence, knowledge payment can be understood as users paying for the secondary interpretation of knowledge by content producers (Hu, 2017). Knowledge payment refers to users paying for professional and valuable knowledge content (Dong, 2018). It is a payment model for users to obtain desired content during their leisure time (Cui & Su, 2018). Knowledge payment is a product of the sharing economy, where users pay for desired content, and platforms profit from users purchasing specific content (Fang & Xu, 2019).

The essence of knowledge payment lies in transforming products into services or realizing their commercial value (Yang, 2019). Knowledge payment refers to the economic phenomenon where the public shares idle resources for value through internet platforms (Zhou & Zhang, 2020). It is a commercial model of sharing knowledge and information for a fee (Song, Yang & Lu, 2020). The essence of knowledge payment is an information consumption behavior (Li & Ai, 2020). Knowledge payment refers to users purchasing knowledge products or services on paid platforms in the era of the knowledge economy (Zhang, 2020).

The above scholars have different views on the connotations of online education payment. Some scholars believe from an economic perspective that knowledge payment is a new profit model, while others see it as payment for valuable content.

Some scholars view online education payment fundamentally as knowledge sharing.

In conclusion, although the academic community has not yet formed a unified view on the definition of knowledge payment, its essence is the same from a macro perspective, mainly including the following aspects: (1) Users must pay a certain fee to obtain the knowledge they desire; (2) Users must pay through internet platforms; (3) The content of knowledge payment platforms must be what users need. Therefore, this study considers "education payment" as the payment of knowledge by users of education payment platforms through internet platforms to obtain valuable content.

2.2.2 Willingness to Sustain Payment

Conducted a search on the China National Knowledge Infrastructure (CNKI) using "willingness to sustain payment" as the main theme and found relatively few studies on the topic. From 2015 to 2020, a total of 22 relevant documents were identified, including 10 academic journals and 12 theses. The following section will review the relevant literature.

Research from the perspective of users on question-and-answer platforms found that the willingness to sustain payment refers to the willingness of users to pay again after the decline in the popularity of paid viewing (Zhang et al, 2018). Based on the perspective of e-commerce service consumption, the willingness to sustain usage is the intention of users to continue using a certain type of information service (Liu, Ding & Wang, 2015). From the perspective of user continuance theory, the platform plays a vital role (Zhao & Yao, 2017).

User continuance is considered more important than initial acceptance. The willingness to sustain usage refers to consumers' willingness to continue purchasing a product or service in the future based on their experiences with the product or service they have already purchased (Song, 2018). Some studies combine users' willingness to sustain payment with the platform's sustainable development (He et al., 2018). The willingness to sustain payment is derived from the willingness to pay and mainly refers to users' intention to continue paying for learning in virtual communities (Ning, 2019). It is defined as users' subjective willingness to continue using a platform after their initial use of the platform (Ying, 2019). Research on social software suggests that the willingness to sustain usage refers to the continuation of using a product rather than abandoning it (Zhang et al., 2019). It represents users' intention to continue using the original platform in the future period (Wang, 2020).

This study notes the scarcity of literature specifically addressing "willingness to sustain payment." Additionally, while the retrieved literature makes a distinction between "willingness to sustain usage" and "willingness to sustain payment," the essence of their research problems is the same. Therefore, this study defines the willingness of users of knowledge payment platforms to sustain payment as the intention of users to make another payment after purchasing knowledge products or services on the platform.

2.2.3 Information Quality, Platform System Quality, and Platform Service Quality of Online Education Payment Platforms

1. Platform Information Quality

Information quality is a core element of online education payment platforms, directly impacting users' learning experiences and outcomes. Information quality primarily includes the following aspects:

(1) Richness and depth of course content: Platforms should offer courses covering multiple subject areas and ensure the content has a certain level of depth to meet the learning needs of different users (Wang, 2020).

(2) Speed of information updates: With knowledge continuously evolving, platforms should promptly update course content to ensure users can learn the latest knowledge (Zhang, 2019).

(3) Reliability of information: Platforms should ensure that the provided course content comes from authoritative institutions or experts to avoid misleading users (Liu, 2018).

(4) Interactivity and personalization: Platforms should provide certain interactive features such as Q&A, discussion forums, while also supporting a certain degree of personalized learning to accommodate different users' learning styles and needs (Chen, 2017).

2. Platform System Quality

Platform system quality is the technical assurance of online education payment platforms, affecting the stability and convenience of user platform usage. Platform system quality mainly includes the following aspects:

(1) System stability: The platform should have high system stability to ensure users do not encounter frequent crashes or failures during usage (Sun, 2016).

(2) Operational convenience: The platform's user interface should be clear and concise, with a reasonable operation process, making it easy for users to quickly find the desired courses and start learning (Li, 2015).

(3) Compatibility and response speed: The platform should support multiple devices and browsers while having fast response speeds to enhance user experience (Zhao, 2014).

3. Platform Service Quality

Platform service quality is the soft power of online education payment platforms, directly influencing users' overall satisfaction with the platform. Platform service quality mainly includes the following aspects:

(1) Customer support: The platform should provide timely and effective customer support services to resolve issues encountered by users during usage (Wang, 2013).

(2) User feedback mechanism: The platform should establish a sound user feedback mechanism to collect and address users' opinions and suggestions promptly, continuously improving services (Liu, 2012).

(3) Refund and course exchange policies: The platform should provide reasonable refund and course exchange policies to protect users' rights (Chen, 2011).

(4) Community building: The platform can enhance interaction and communication among users by establishing learning communities, fostering a conducive learning atmosphere (Zhang, 2010).

In summary, the information quality, platform system quality, and platform service quality of online education payment platforms are three important aspects for evaluating their merits. Each platform should continuously optimize and enhance these three aspects to provide better online education services and meet users' learning needs.

2.3 Theoretical Foundation

2.3.1 Expectation Confirmation Theory

In 1980, Oliver. (1999). first proposed the Expectation and Disconfirmation Theory while studying consumer satisfaction. He posited that expectation disconfirmation refers to the degree of difference between a user's expectations before purchasing a product and their perceived performance after the purchase. This difference in perceived expectations before and after purchasing often impacts user satisfaction, which in turn influences their intention to continue using the product.

Building on other scholars' research, Churchill et al. (1982) expanded on the Expectation Confirmation Theory and its model by incorporating user-perceived performance into the model, resulting in the widely used Expectation Confirmation Model in academia. This theory systematically explains the mechanism from a user's expectations before purchasing a product, through their perception of the product after purchase, to the final decision to repurchase. It describes the relationships between various variables. The theory asserts that users' expectation confirmation can significantly influence satisfaction and the intention to continue purchasing (using) the product.

The proposal of the Expectation Confirmation Theory has provided an important theoretical foundation for studying user satisfaction and continued usage behavior. Subsequently, scholars applied the Expectation Confirmation Model to the information systems field to explore the continuous usage behavior of information system users. Bhattacherjee (2001) noted that the behavior of information system users is highly consistent with consumer purchasing behavior. Therefore, he extended and refined the Expectation Confirmation Model, resulting in the model now widely accepted by scholars, as shown in Figure 2.1. The extended Expectation Confirmation Model, incorporating the characteristics of information systems, introduced the important variable of perceived usefulness. This variable reflects the expectations formed after users receive the system. The higher the degree of expectation confirmation, the higher the perceived usefulness and satisfaction, thereby increasing the intention to continue using the system.

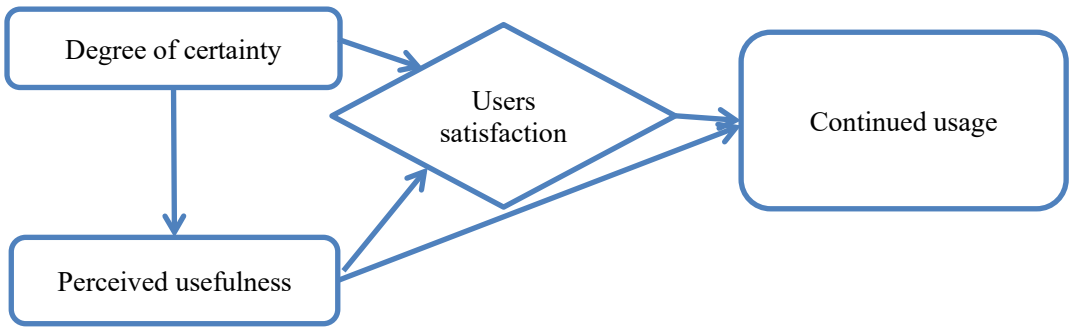

Figure 2.1 Extended Expectation Confirmation Model

2.3.2 Information Systems Success Theory

The study of information systems originated in the United States. With the rapid development of information systems, how to construct metrics to measure their effectiveness has become a focal point for theorists. Consequently, scholars both domestically and internationally have evaluated and measured the effectiveness of information systems based on different research contexts, yet a comprehensive and widely applicable theoretical framework has always been lacking. Based on a review of related literature, American scholars DeLone (1992) innovatively proposed the Information System Success Model (also known as the D&M Model) in 1992, integrating variables such as information quality, system quality, user satisfaction, individual impact, and organizational impact.

This model posits that information quality and system quality can significantly influence user satisfaction and intention to use. Following the introduction of the D&M Model, DeLone (1992) revised the model further in light of new research contexts, leading to the development of a new D&M Model, as shown in Figure 2.2. While maintaining the three original variables of information quality, system quality, and user satisfaction from the initial model, they added two new variables: service quality and intentions to use, with user satisfaction being a critical indicator of information system. success.

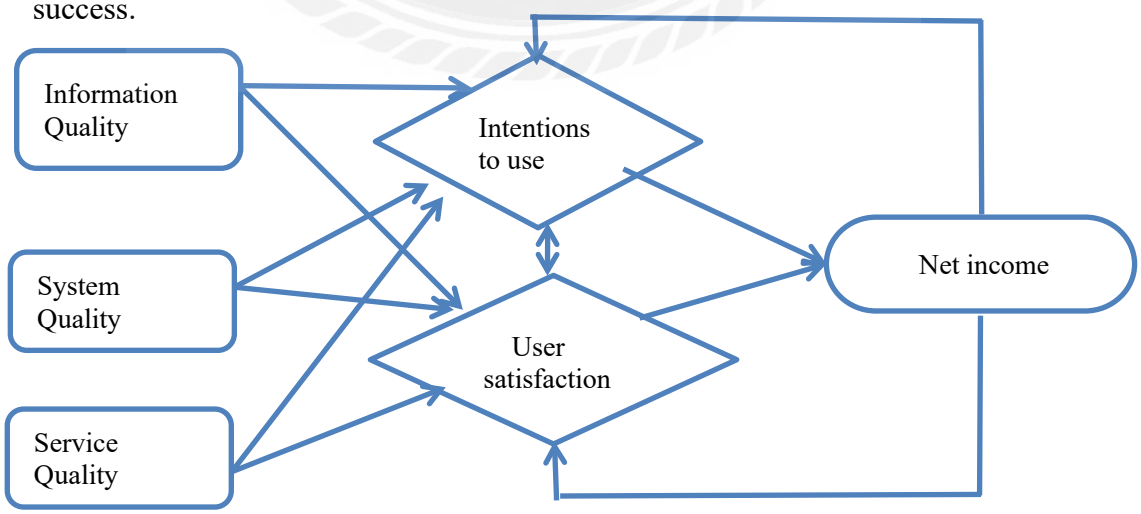

Figure 2.2 Information Systems Success Model (D&M)

2.3.3 User Satisfaction Theory

User satisfaction is a metric resulting from the interaction of factors such as supply and demand, product positioning, product functionality, and market environment. During their experience, users can intuitively perceive every part of the product or service provided (Bai & Liao, 2014). User satisfaction management emerged as a new management approach at the end of the last century. User satisfaction reflects the comparison between the products and services provided by the supplier and the experiences and expectations of the end users; it is a function of the user's individual perceptions and expectations (Bai & Liao, 2014). User satisfaction is a cumulative process, not determined by a single experience as the final evaluation. The theory of user satisfaction reveals issues in the products and services provided by enterprises, guiding them to aim at improving user satisfaction by analyzing and addressing these problems.

User satisfaction refers to users' perceptions and evaluations of the performance, quality, and price of a product or service during its use. It can be divided into three levels: dissatisfaction, basic satisfaction, and high satisfaction. The level of user satisfaction directly affects user loyalty, word-of-mouth communication, and purchase intention (Fornell et al., 1996).

The primary methods for measuring user satisfaction include questionnaire surveys, interviews, observation, and experimental methods. Among these, questionnaire surveys are the most commonly used, typically employing a 5-point or 7-point scale to score user satisfaction. Additionally, user satisfaction can be measured by calculating the user satisfaction index, such as the American Customer Satisfaction Index (ACSI) (Fornell et al., 1996).

User satisfaction is influenced by various factors, mainly including product quality, service quality, price, brand image, and user experience. Product quality is the foundation of user satisfaction, while service quality and user experience directly impact users' perceived value. The effects of price and brand image on user satisfaction are primarily reflected in users' psychological expectations and cognitive evaluations (Anderson et al., 1994).

To improve user satisfaction, enterprises need to focus on several aspects: first, enhancing product quality to meet user needs; second, optimizing service processes to improve service quality and user experience; third, setting reasonable prices to ensure product competitiveness; fourth, building a good brand image to increase user recognition and trust; and fifth, paying attention to user feedback to continuously improve products and services (Oliver, 1999).

User satisfaction theory studies the degree of user satisfaction during the use of products or services and its influencing factors. Through research on user satisfaction, enterprises can better understand user needs, improve the quality of their products or services, and thus enhance user satisfaction and loyalty.

2.4 Conceptual Framework

The literature review of this study is based on the Expectation Confirmation Theory, Information Systems Success Theory, and User Satisfaction Theory, focusing on the factors influencing the online education payment platforms.

To analyze the factors affecting users' satisfaction with online education payment platforms, this study constructs a model with platform information quality, platform system quality, and platform service quality as independent variables. The dependent variable is user satisfaction with online education payment platforms, as shown in Figure 2.3.

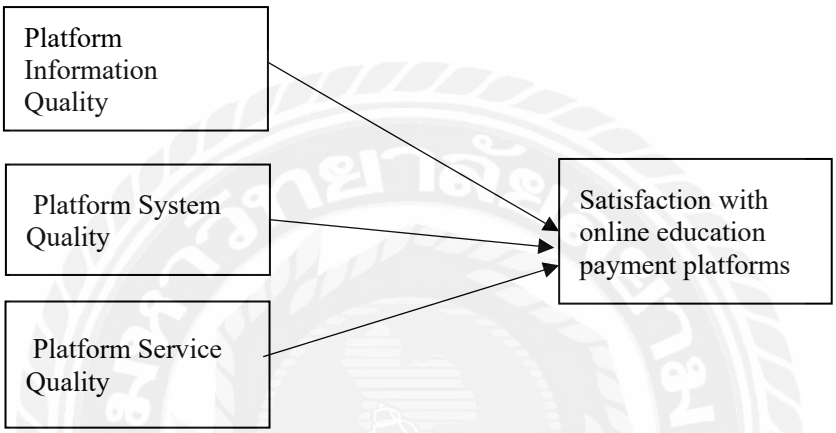

Figure 2.3 Conceptual Framework

Chapter 3 Research Methodology

3.1 Research Design

This study adopted a quantitative research method. A questionnaires survey was employed to collect data.

3.2 Population and Sample

This study primarily investigates the factors influencing users' satisfaction with online education payment platforms. The subjects of this research are users of online education payment platforms. The sampling research method employed in this study is the simple random sampling.

$$\mathrm{N} = \frac{r^2 * q^2}{E}$$

Using the sample size formula, the collected data values follow the quartiles of the standard normal distribution. For a confidence level, the common value is 95%. Let q be the sample standard deviation, which is typically estimated as 0.5. The margin of error K (the maximum allowable difference between the sample mean and the population mean) is set to 0.05. Applying this formula, the required sample size was calculated as 408 respondents.

3.3 Hypotheses

To analyze the factors influencing users' satisfaction with online education payment platforms, this study constructs a model with the platform's information quality, platform system quality, and platform service quality as independent variables. The satisfaction with the platform is the dependent variable. The satisfaction is influenced by the combined effects of the platform's information quality, platform system quality, and platform service quality, as shown in Figure 3.1.

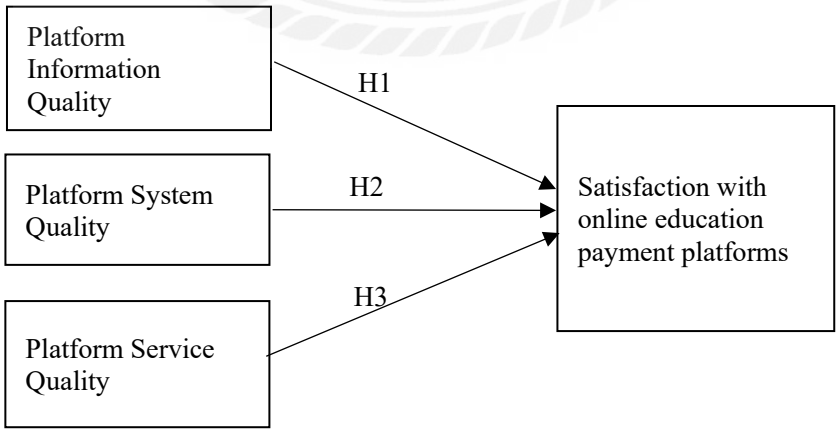

Figure 3.1 Hypotheses

H1:The information quality of online education payment platforms positively

influences user satisfaction.

H2:The system quality of online education payment platforms positively influences user satisfaction.

H3:The service quality of online education payment platforms positively influences user satisfaction.

3.4 Research Instrument

The questionnaire consists of 26 questions. Questions 1-21 are scale questions, with seven items each for the information quality, platform system quality, and platform service quality of online education payment platforms, and five items for the satisfaction with the platform. The Likert five-point scale is used, with scores ranging from 1 to 5, representing very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied, respectively. Higher scores indicate a higher level of agreement with the item.

The questionnaire structure in this study, is divided into three main parts:

Part One: Acknowledgements and Instructions

This section explains the purpose of the questionnaire, interprets and clarifies the terms used in the questionnaire to ensure participants fully understand the items, and provides a confidentiality statement about the handling and destination of the questionnaire data. It concludes with an expression of gratitude for the participants' earnest responses.

Part Two: Screening Items and Personal Information of Respondents

This section screens the samples to ensure the precision of the study's target respondents. It collects basic information about the respondents, such as gender, age, educational background, and income range, providing supplementary explanations for the sample description. This data helps to preliminarily understand the basic characteristics of the sample, ensuring the overall authenticity and comprehensiveness of the study.

Part Three: Scale Measurement of Three Variables

This section measures the information quality, platform system quality, and platform service quality of online education payment platforms. The scale items are derived from established scales in relevant studies, adjusted to fit the context of this study, ensuring the content is suitable for this research direction. There are a total of 26 items,

as shown in Table 3.1.

Table 3.1 Questionnaire Items

Variable	Measurement items	NO.
Platform Information Quality	1. Are you satisfied with the accuracy of the content of paid online education courses?	Q1
	2. Are you satisfied with the professionalism of the content of paid online education courses?	Q2
	3. Are you satisfied with the practicality of the content of paid online education courses?	Q3

	4. Are you satisfied with the entertaining content of paid online education courses?	Q4
	5. Satisfied with the comprehensiveness and richness of the content of online education paid courses?	Q5
	6. Are you satisfied with the timeliness of updating the content of online education paid courses?	Q6
	7. Are you satisfied with the safety of operating the stereo garage system in and out?	Q7
Platform System Quality	1. Education paid platforms are easy to operate satisfactory?	Q8
	2. Are you satisfied with the stability of the platform system for the education payment category?	Q9
	3. Are you satisfied with the user-friendliness of the interface of the paid education platform?	Q10
	4. Are you satisfied with the reasonableness of the functional module settings of the education payment platform?	Q11
	5. Are you satisfied with the functional top-up security of the education pay-per-view platform?	Q12
	6. Are you satisfied with the offline playback smoothness of the educational pay-per-view platform?	Q13
	7. Are you satisfied with the compatibility of the platform system for the education payment category?	Q14
Platform Service Quality	1. Are you satisfied with the reliability of the customer service line answering questions on paid education platforms?	Q15
	2. Education paid platform customer service line answer questions in a timely manner to respond to the satisfaction of the sex?	Q16
	3. Education paid platform customer service line answer the question and answer accurately and satisfactorily?	Q17
	4. Education paid platform customer service line recommended custom fit course satisfaction?	Q18
	5. Are you satisfied with the frequency of return visits to paid education platforms?	Q19
	6. Are you satisfied with the courses pushed by paid education platforms?	Q20
	7. Satisfied with the reasonableness of the pricing of the paid education platforms?	Q21
Satisfaction with online education payment platforms	1. Are paid-for-education platforms satisfied with improving learning outcomes?	Q22
	2. Is there an opportunity to reach out to more knowledge satisfaction in the paid education category?	Q23

	3. Are many of the knowledge products of the paid education platforms satisfactory in terms of feeling interesting?	Q24
	4. Are you satisfied with the knowledge you learnt from the paid platforms in terms of applying it to your life, study and work?	Q25
	5. Satisfied with the overall feeling brought by the paid education platforms?	Q26

3.5 Reliability and Validity Analysis of the Scale

3.5.1 Reliability

Reliability refers to the extent to which the data collected by the survey questionnaire is accurate and reliable. In the preliminary research of this study's questionnaire, it was established that the reliability is primarily determined by Cronbach's α coefficient. A Cronbach's α coefficient above 0.8 for the overall scale indicates that the quality of the survey questionnaire is quite ideal. A coefficient between 0.7 and 0.8 indicates that the overall quality of the questionnaire is acceptable. For subscales, a Cronbach's α coefficient above 0.7 suggests that the quality of the measurement items for that specific dimension is ideal, while a coefficient between 0.6 and 0.7 suggests that the quality is acceptable.

In this study, SPSS software was used to conduct reliability tests on the overall scale and on subscales for perceived usefulness, perceived enjoyment, perceived ease of use, technical characteristics, perceived cost, perceived value, user satisfaction, expectation confirmation, and uses satisfaction. The specific analysis results are shown in Table 3.2.

As shown in Table 3.2, the Cronbach's α coefficients for the 26 valid measurement items of the overall scale in the survey questionnaire are all higher than the standard threshold of 0.8. This indicates that the overall reliability of the data collected by the survey questionnaire is quite high. The valid data for each variable collected by the survey questionnaire are also relatively reliable and stable, making them suitable for proceeding to the next stage of validity analysis.

Table 3.2 Variable Reliability Test

Variable	Cronbach Alpha	N of Items
Platform Information Quality	0.856	7
Platform System Quality	0.880	7
Platform Service Quality	0.895	7
Satisfaction with online education payment platforms	0.901	5

3.5.2 Validity

Validity refers to the evaluation of the validity of each variable in the questionnaire. A common method for testing questionnaire validity is factor analysis. The validity of the questionnaire is determined through factor analysis. The KMO (Kaiser-Meyer-Olkin) test and Bartlett's sphericity test need to be conducted before performing principal component factor analysis. Only when the KMO value is greater than 0.7 can factor analysis be performed.

Survey data show that the overall KMO value is 0.907, with a significance level of 0.000, which is less than 0.05 and reaches a significant level, indicating that factor analysis can be conducted. This study employs Confirmatory Factor Analysis (CFA). The KMO and Bartlett's sphericity tests were conducted on the pre-test data to validate the construct validity of the scale. The results, as shown in Table 3.3, indicate that the KMO values are greater than 0.8 and Bartlett's sphericity test is significant. This suggests that the structure validity of the scale is good, and the independence of each dimension is well established, indicating that the overall validity of the questionnaire is good.

Table 3.3 KMO and Bartlett's Test

Kaiser -Meyer -Olkin Sampling Adequacy Measures		0.837
Bartlett's test of sphericity	Approx. CARTES	6942.00
	df	194
	organizations	0.000

3.6 Data Collection

The survey questionnaire link and QR code were distributed via social media apps with large user bases, such as WeChat and QQ, and friends were invited to fill out and share the questionnaire. Ultimately, a total of 445 questionnaires were collected. The survey was conducted over a period of three months, from February 2024 to May 2024, spanning 91 days.

After the survey collection concluded, the study excluded invalid questionnaires according to predefined criteria, resulting in 386 valid questionnaires, achieving an effective rate of 86.7%. The criteria for excluding questionnaires included identical IP addresses, completion times less than 200 seconds or more than 320 seconds, and consistent answers for five consecutive items. Additionally, based on Bentler's (1987) viewpoint, the number of valid questionnaires in empirical analysis should be 5 to 10 times the number of variable items. The questionnaire in this study includes a total of 26 variable items, and the 386 valid questionnaires exceed 10 times this number, ensuring the adequacy of the sample size. This guarantees the feasibility and scientific validity of the questionnaire, as well as the reliability and effectiveness of the study.

3.7 Data Analysis

Table 3.4 Validation Factor Analysis (CFA)

Total Variance Explained								
unit	Initial eigenvalue		The extraction of square loads			Rotation of the square load		
	variance %	accrue %	total	Percentage of variance	accrue %	total	Percentage of variance	accrue%
1	21.623	21.623	4.656	22.523	22.523	3.732	15.330	16.334
2	12.017	33.640	3.104	12.017	34.640	2.721	12.284	28.615
3	9.753	42.393	2.188	9.753	43.393	2.833	12.039	36.653
4	8.076	51.469	2.119	8.076	51.469	2.688	20.632	48.285
5	6.716	58.185	1.779	6.716	68.185	2.475	8.900	68.011

The cumulative rate for platform information quality, platform system quality, and platform service quality is 68.011%. Finally, data analysis indicates that the Cronbach's α for platform information quality is 0.856, for platform system quality is 0.880, for platform service quality is 0.895, and for user satisfaction with continued usage intention is 0.901. All Cronbach's α values are greater than 0.7, accounting for a total of 68.011% of the variance, as shown in Table 3.4. The reliability and validity analyses of each variable indicate that each dimension has good independence. The final results demonstrate that the questionnaire has good reliability and validity.

Chapter 4 Findings and Discussion

4.1 Findings

This chapter validated the conceptual model of user satisfaction constructed in Chapter 2 and the research hypotheses. Building upon the validation of questionnaire reliability and validity in Chapter 3, statistical analysis and hypothesis testing were conducted on the sample data. Firstly, descriptive statistical analysis of the overall data was performed using SPSS 22.0 software. This includes demographic characteristic analysis, data statistical analysis, and sample data analysis related to platform information quality, platform system quality, and platform service quality in this study.

4.1.1 Demographic Characteristics of Respondents

Regarding the demographic characteristics of the sample, it mainly includes the gender, age, education level, occupation, and average monthly income of the questionnaire respondents. In terms of gender, 51.8% of users are male, while 48.2% are female. Although there is a slight difference in the male-female ratio, with males slightly outnumbering females, the ratio is close to 1:1, indicating that gender has a relatively minor influence on knowledge payment platforms (such as Himalaya). In terms of age, the majority of users are aged 25 to 30, accounting for 36.5% of the total, followed by users aged 18 to 25, accounting for 28.8%. Users aged 18 to 30 account for 65.3% of the total, significantly exceeding 50% of the valid survey responses, indicating a relatively high proportion of users aged 18 to 30 in this survey. In terms of education level, users with a bachelor's degree account for 55.7%, while those with a postgraduate degree or above account for 18.1%, indicating that users of knowledge payment platforms (such as Himalaya) generally have higher educational levels. In terms of occupation, students and employees constitute a relatively large proportion. This may be related to students being more willing to accept emerging trends, while employees are more inclined to use knowledge payment platforms to enhance their competitiveness in the workplace. In terms of average monthly income, the majority of users have an average monthly income of 5000 to 10000 yuan, accounting for 44%. Lastly, it is observed that 85.5% of users in the surveyed group frequently browse knowledge payment platforms (such as Himalaya), while 83.7% of all surveyed users have experience paying on knowledge payment platforms (such as Himalaya). Details are presented in Table 4.1.

Table 4.1 Demographic Characterisaties of Sample (N=386)

Diagnostic property	Options	Frequency	Percentage (%)
gender	male	200	51.8%
	female	186	48.2%

Age	20 years and below	10	2.6%
	21 to 25 years old	111	28.8%
	25 to 30 years old	141	36.5%
	30 to 40 years old	94	24.4%
	40 to 50 years old	21	5.4%
	50 years and older	9	2.3%
Educational background Qualification	High school and below	18	4.7%
	Junior college	83	21.5%
	Undergraduate	215	55.7%
	Bachelor's degree	70	18.1%
Career	Student	89	23.1%
	Worker of an enterprise	170	44.0%
	Government official	73	19.0%
	Employee of private firm	38	9.8%
	Others	16	4.1%
Monthly income	Less than 3000	81	21.0%
	3000 to 5000	108	28.0%
	5000 to 8000	168	44.0%
	8000 to 12000	29	7.0%
	12000 or more	323	83.7%
Have you ever paid for a learning platform	yes	63	16.3%
	no	81	4.7%

(Himalaya FM)?			

4.1.2 Analysis of Users with Gender Differences

Given the particularity of Himalaya users in the survey questionnaire, this study employs independent sample t-tests and one-way analysis of variance (ANOVA) to examine the influence of different user characteristics on satisfaction with online education payment platforms, based on structural equation model testing.

This study employs the independent sample t-test method, with specific output results as shown in Table 6.14. In the independent sample t-test method, if the significance of Levene's test for equality of variances is >0.05, then select the result under "Assume equal variances"; otherwise, select the result under "Do not assume equal variances." If the significance (Sig.) of the two-tailed t-test for equality of means is >0.05, it indicates no significant difference, otherwise, there is a significant difference.

Table 4.2 Influence of Users' Gender on Satisfaction

Levine's test of variance equivalence			Mean equivalence t-test		
	F	Significance	t	Degrees of freedom	Sig. (pair of tail hairs)
Assuming equal variance	1.038	0.309	0.435	384	0.664
Not assuming equal variance			0.433	370.287	0.665

From the results in Table 4.2, the significance of Levene's test for equality of variances is 0.309 > 0.05 and the significance (Sig.) of the two-tailed t-test for equality of means is 0.664 > 0.05. This indicates that there is no significant difference in the satisfaction between male and female users of Himalaya in the survey questionnaire.

4.1.3 Analysis of Users with Different Ages

In terms of age groups, nearly all age groups are represented, but the majority are young and middle-aged individuals aged 21-50. The 21-50 age group accounts for 95.1% of the total sample, indicating that young and middle-aged individuals are the main users of the education payment platform. This is illustrated in Figure 4.1.

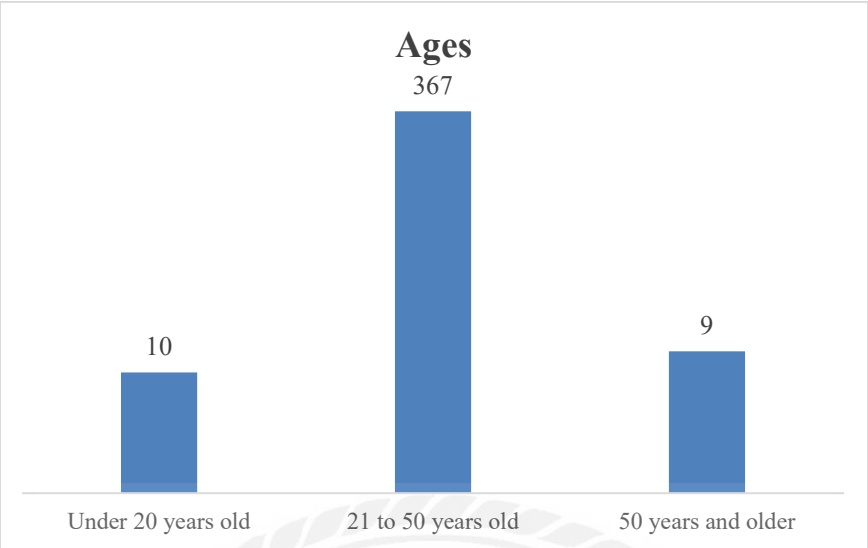

Figure 4.1 Frequency of Ages

4.1.4 Analysis of Users with Different Educational Backgrounds

In terms of educational background, the majority of users hold a bachelor's degree, accounting for over 50%. Overall, the educational level of the respondents is relatively high, as illustrated in Figure 4-3.

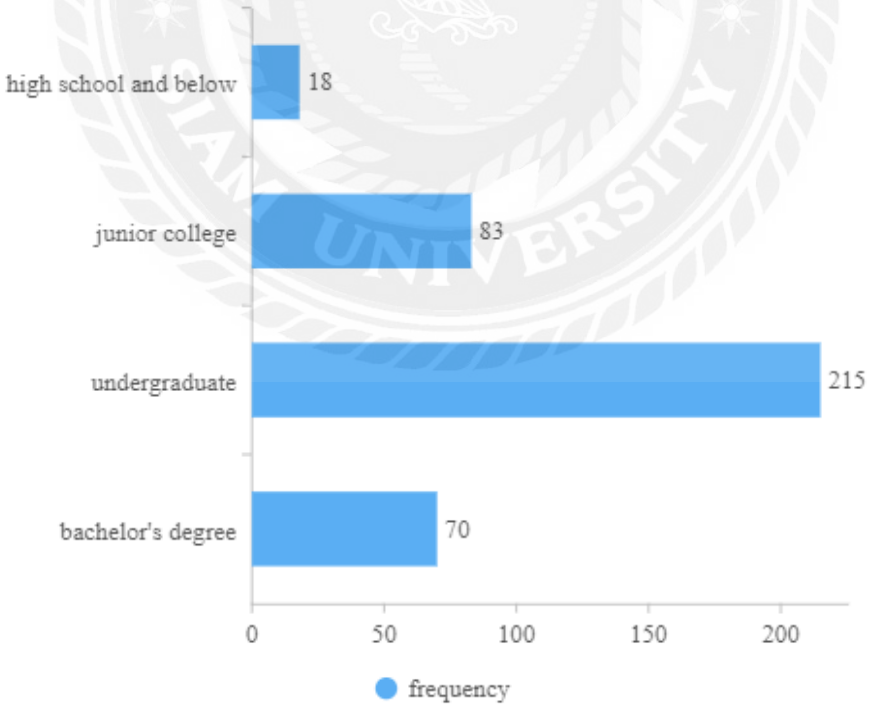

Figure 4.2 Frequency of Educational Backgrounds

4.1.5 Analysis of Users with Different Occupations

The following uses one-way analysis of variance (ANOVA) to analyze whether there are significant differences in the satisfaction of Himalaya users with different occupations in the survey questionnaire. The specific output results are shown in Table 4.3.

Table 4.3 Influence of Users' Occupation on Willingness to Pay Consistently

WT					
	Square sum	Degrees of freedom	Mean square	F	Significance
Inter group	0.867	4	0.217	0.537	0.709
Within a group	153.804	381	0.404		
Total	154.671	385			

From the table above, it can be observed that the total sum of squares for willingness to continue paying among Himalaya users with different occupations in the survey questionnaire is 154.671. The between-group sum of squares is 0.867, and the within-group sum of squares is 153.804. The mean squares for between-groups and within-groups are 0.217 and 0.404, respectively. The F-value is 0.537, calculated by dividing the mean square between-groups by the mean square within-groups. The significance value is 0.709 > 0.05, indicating that there is no significant difference in satisfaction of users with different occupations in the survey questionnaire of this study.

4.1.6 Analysis of Users with Different Monthly Income Characteristics

To investigate whether there are significant differences in satisfaction of Himalaya users with different monthly incomes in the survey questionnaire, this study employs one-way analysis of variance (ANOVA). The specific output results are shown in Table 4.4.

Table 4.4 Impact of Users' Monthly Income on Willingness to Pay Consistently

WT					
	Square sum	Degrees of freedom	Mean square	F	Significance
Inter group	1.403	3	0.468	1.166	0.323
Within a group	153.268	382	0.401		
Total	154.671	385			

From Table 4.4, it can be observed that the total sum of squares for satisfaction of Himalaya FM users with different monthly incomes in the survey questionnaire is 154.671. The between-group sum of squares is 1.403, and the within-group sum of squares is 153.268. The mean squares for between-groups and within-groups are 0.468 and 0.401, respectively. The F-value is 1.166, calculated by dividing the mean square between-groups by the mean square within-groups. The significance value is 0.323 > 0.05, indicating that there is no significant difference in satisfaction of users with different monthly incomes in the survey questionnaire of this study.

4.2 Discussion

4.2.1 Correlation Analysis

Correlation analysis is primarily used to illustrate the relationships between various variables. Pearson correlation analysis is employed to elucidate the linear relationships between variables, with Pearson correlation coefficients ranging from -1 to 1. Utilizing Pearson correlation coefficient analysis, an examination of the relationships among the factors influencing impulsive purchasing was conducted. Based on Table 4, conclusions can be drawn. The Pearson correlation coefficients for platform information quality, platform system quality, platform service quality, and user satisfaction are all greater than 0.5 but less than 0.9, with a significance level of $P < 0.01$. This indicates the existence of correlations and positive correlations among the variables.

Table 4.5 Correlation between Variables (Pearson correlation matrix)

Variable	Platform Information Quality	Platform System Quality	Platform Service Quality	Satisfaction
Platform Information QualityPlatform Information Quality	1			
Platform System Quality	.591**	1		
Platform Service Quality	.551**	.665**	1	
Satisfaction	.572**	.692**	.675**	1

Note:* p <0.05， ** p <0.01， *** p <0.001

From the table, it is evident that the Pearson correlation coefficients for platform information quality, platform system quality, platform service quality, and user satisfaction are all greater than 0.5 but less than 0.9, with a significance level of $P < 0.01$. This indicates the presence of correlations among the variables, and they are positively correlated.

The Pearson correlation coefficient between platform information quality and platform system quality is 0.591, with $P < 0.01$, suggesting a correlation between them, which is of a moderate level.

The Pearson correlation coefficient between platform information quality and platform service quality is 0.551, with $P < 0.01$, indicating a correlation between them, also of a moderate level.

The Pearson correlation coefficient between platform information quality and user

satisfaction is 0.572, with P < 0.01, indicating a correlation between them, also of a moderate level.

The Pearson correlation coefficient between platform system quality and platform service quality is 0.665, with P < 0.01, suggesting a correlation between them, which is of a moderate level.

The Pearson correlation coefficient between platform system quality and user satisfaction is 0.692, with P < 0.01, indicating a correlation between them, also of a moderate level.

The Pearson correlation coefficient between platform service quality and user satisfaction is 0.675, with P < 0.01, indicating a correlation between them, also of a moderate level.

Based on the above research analysis, the factors influencing user satisfaction include platform information quality, platform system quality, platform service quality, and user satisfaction. Therefore, to enhance user satisfaction and cultivate loyal customers who continue to pay, it is necessary to focus on these three aspects and adopt reasonable and scientific management methods. The correlations between variables suggest that each variable plays a certain role in the model, reflecting the rationality of the model construction.

4.3.2 Multivariate Regression Analysis

The data underwent a multiple regression analysis to determine the relationship between the dependent variable, satisfaction with online education payment platforms, and the independent variables, platform information quality, platform system quality, and platform service quality. The regression equation was found to be significant, with an F-value of 142.172 and p < 0.001. The Durbin-Watson test value was 1.944, falling between 1.8 and 2.2, indicating data independence and meeting the requirements for linear regression. In the covariance diagnostic results, the variance inflation factor (VIF) values for platform information quality, platform system quality, and platform service quality were 1.118, 1.091, and 1.195, respectively. These VIF values are close to 1, indicating no covariance in the data. Platform information quality (β=0.135, p < 0.05), platform system quality (β=0.217, p < 0.05), and platform service quality (β=0.101, p < 0.05) were found to significantly and positively influence users' satisfaction. Together, these variables explained 57.5% of the variance in users' satisfaction, meeting the requirements.

Table 4.6 Multiple Regression Analysis

Item	Unstd. B	Std. Beta	t	Sig.	VIF	F	Durbin-Watson
Constant	3.209	-	7.506	0.000		142.172	1.944
Platform Information Quality	0.135*	0.175	4.176	0.000	1.118		
Platform System Quality	0.217*	0.262	5.327	0.000	1.091		
Platform Service Quality	0.101*	0.130	2.753	0.006	1.195		

R-squared	0.579
Adjusted R-square	0.575

Note:* p <0.05， ** p <0.01， *** p <0.001

Based on the results of the multiple regression analysis, the influence relationships between the variables are as follows:

User satisfaction = 3.209 + 0.145 * Platform information quality + 0.218 * Platform system quality + 0.112 * Platform service quality.

Therefore, according to the data analysis results, in the study of factors affecting user satisfaction, platform information quality has a significant positive effect, supporting hypothesis H1. Platform system quality also has a significant positive effect, supporting hypothesis H2. Similarly, platform service quality has a significant positive effect, supporting hypothesis H3.

Chapter 5 Conclusion and Recommendation

5.1 Conclusion

The aim of this study is to investigate the factors influencing the satisfaction of users of online education platforms and the underlying mechanisms. The research targets users who have purchased and used online education platforms. Based on an integrated model combining the expanded expectation confirmation model and the information system success model, and considering the practical development of online education platforms, this study innovatively introduces relevant facilitating factors to construct the theoretical model. Through empirical testing, the model's fit, path relationships, and theoretical hypotheses are examined.

This chapter, in conjunction with the empirical analysis results from Chapter 4, proposes marketing strategies conducive to the healthy development of platforms based on platform information quality, platform system quality, and platform service quality. The aim is to guide educational payment platforms in leveraging survey experience to enhance the promotion and usage of educational payment platforms.

5.1.1 Analysis of Factors Affecting User Satisfaction with Online Education Payment Platforms.

Through correlation and regression analysis, Pearson correlation coefficients for platform information quality, platform system quality, and platform service quality are obtained. The Pearson correlation coefficients are 0.591, 0.551, and 0.572 respectively. All are greater than 0.5 but less than 0.9, with $p < 0.01$, indicating the presence of correlations between variables. In the regression analysis, a regression model is constructed, with coefficients of 0.145 for platform information quality, 0.218 for platform system quality, and 0.112 for platform service quality, indicating positive correlations between each variable and user satisfaction with online education payment platforms.

The research results demonstrate that platform information quality, platform system quality, and platform service quality influence user satisfaction with online education payment platforms. These factors positively impact user satisfaction with online education payment platforms. Through research analysis, it is evident that improving user satisfaction requires addressing platform information quality, platform system quality, and platform service quality, and implementing appropriate and scientific management methods.

5.1.2 Validating the Positive Impact of Platform Information Quality, Platform System Quality, and Platform Service Quality on Satisfaction with Online Education Payment Platforms.

1. Positive Impact of Platform Information Quality on User Satisfaction with Online Education Payment Platforms.

In today's digital era, platforms like Himalaya, with high information quality, significantly influence users' satisfaction. Information quality not only affects user learning experiences but also plays a crucial role in determining whether users are willing to use the platform long-term.

High-quality course content meets users' specific learning needs. For example, when Himalaya offers content closely related to users' career development or interests, it increases users' willingness for continued usage. When the course content addresses real-world issues users encounter in their work or daily life, users are more inclined to continue using the platform. Providing the latest courses and knowledge helps users stay up-to-date, which is especially important for lifelong learners. Regular updates ensure users access the latest information and knowledge, encouraging continued engagement. Interactive features like Q&A and discussions enhance user participation, improving the learning experience and promoting continuous usage. Personalized learning paths and recommendation systems provide customized content based on users' needs and preferences, enhancing satisfaction and engagement.

In summary, information quality of online education platforms is a key factor influencing users' satisfaction by offering relevant, practical, updated, authoritative course content, as well as optimizing interactivity, personalization, usability, and accessibility, platforms can effectively enhance user learning experiences and satisfaction, thus increasing user loyalty and online education payment platforms.

2. Positive Impact of Platform System Quality on User Satisfaction with Online Education Payment Platforms.

Platform system quality is a critical component of user experience on online education platforms, involving the technical support and functional features users rely on when learning on the platform. As a typical online education platform, Himalaya's system quality positively influences users' satisfaction:

Intuitive user interface design allows new users to quickly get started, reducing the learning curve and increasing user acceptance and usage intention. Clear interface elements and layout ensure users can easily find desired features, enhancing the user experience. Fast server response times reduce user wait times and frustration. Stable platform operation ensures users smoothly complete learning tasks without frequent crashes or malfunctions. Support for multiple device access meets users' learning needs across different scenarios. Providing a consistent user experience across different devices and operating systems enhances user trust in the platform. Advanced data encryption and security technologies protect user information, preventing data breaches. Clear privacy policies and user agreements inform users about how their personal information is collected, used, and protected. Personalized course recommendations based on users' learning history and preferences improve learning efficiency and satisfaction. Integration of intelligent assistants and interactive teaching functions enhances learning interactivity and enjoyment.

In conclusion, platform system quality of platforms like Himalaya significantly enhances user learning experiences and satisfaction by providing intuitive interfaces,

fast response times, compatibility, robust data security, personalized recommendations, and rich interactive features. These factors collectively increase user loyalty and willingness for continuous usage, promoting the success and sustainable development of online education platforms.

3. Positive Impact of Platform Service Quality on User Satisfaction with Online Education Payment Platforms.

Platform service quality, such as that provided by Himalaya, positively influences users' satisfaction in several ways:

Users can quickly contact the platform through various channels (e.g., online chat, phone, email) to receive timely feedback and solutions to their problems. This immediate customer support reduces user wait times and anxiety, enhancing satisfaction. The customer service team possesses professional knowledge and skills to accurately understand and address user issues, enhancing user trust and reliance on the platform. Detailed usage guides and tutorials help users familiarize themselves with platform features and operations, reducing frustration for new users. Providing rich training resources such as video tutorials and online webinars helps users better utilize the platform for learning and improvement, increasing motivation and stickiness. Establishing effective user feedback mechanisms encourages users to voice their opinions and suggestions, making them feel valued and providing directions for platform improvement. Timely adjustments and optimizations to service processes and features based on user feedback enhance user satisfaction and loyalty. Providing personalized course recommendations based on user interests and behaviors meets users' individual learning needs, enhancing participation and satisfaction.

In summary, platforms like Himalaya enhance user satisfaction and loyalty by providing high-quality services, including timely professional customer support, rich educational resources, effective feedback mechanisms, personalized service experiences, and active community interaction. These factors collectively increase user satisfaction and willingness for continuous usage, laying a solid foundation for the platform's long-term development.

5.2 Recommendation

5.2.1 Continuous Improvement of Platform Information Quality to Enhance User Satisfaction with Online Education Payment Platforms.

To continuously improve the information quality of online education platforms and enhance user willingness for continuous usage and satisfaction, here are some suggestions:

1. Enhance Content Quality: Collaborate with industry experts to develop courses ensuring accuracy, relevance, and ease of understanding. Regularly update course content to adapt to market changes and technological developments. Provide diverse course topics and formats to meet different user needs. Consider cultural diversity by offering courses in multiple languages to attract a wider user base.

2. Increase Interactivity: Introduce interactive teaching elements such as real-time Q&A, discussion forums, and peer review to increase participation and engagement. Build a social learning network to encourage users to form study groups, share experiences and knowledge, and enhance social motivation for learning.

3.Optimize Technology and Services: Utilize big data and artificial intelligence technologies to provide personalized learning content recommendations, improving learning efficiency and experience. Establish an efficient customer service system offering multi-channel technical support and academic assistance to ensure timely issue resolution.

4.Improve Feedback Mechanisms: Establish a responsive user feedback mechanism, regularly collect and analyze user feedback, and adjust and optimize platform content and services accordingly. Implement user incentive mechanisms such as points, badges, and certifications to reward users who actively participate in platform activities and provide valuable feedback.

In conclusion, by implementing these suggestions, online education platforms can continuously enhance information quality, thereby increasing user willingness for continuous usage and satisfaction.

5.2.2 Continuous Improvement of Platform System Quality to Enhance User Satisfaction with Online Education Payment Platforms.

To continuously improve the system quality of online education platforms like Himalaya and enhance user willingness for continuous usage and satisfaction, here are some suggestions:

1.Optimize Technical Architecture: Regularly maintain and upgrade systems to ensure stable server operation and reduce downtime. Implement load balancing technology to handle peak access pressures. Strengthen data encryption and user privacy protection measures to prevent data breaches and cyberattacks. Conduct regular security vulnerability scans and fixes.

2.User Experience Design: Design intuitive user interfaces to ensure users can quickly find desired features. Provide personalized settings such as night mode to reduce visual fatigue. Optimize interaction flows to reduce unnecessary clicks and wait times. Introduce intelligent voice recognition and feedback systems to improve operational convenience.

3.Performance Enhancement: Improve page loading speed and response time by optimizing code and database queries. Use caching technology to reduce redundant loading. Compress images and videos to reduce data transfer volume and speed up loading while maintaining clarity.

4.Compatibility and Adaptability: Ensure the platform operates well on various devices (e.g., mobile phones, tablets, computers) and provides a consistent user experience. Support different operating systems such as iOS, Android, Windows, and regularly update to adapt to system iterations.

5.Intelligent Services: Utilize machine learning technology to provide accurate course recommendations based on user behavior and preferences. Regularly update

algorithms to improve recommendation accuracy. Develop intelligent tutoring systems to provide customized learning plans and real-time Q&A services, simulating a one-on-one teaching experience.

In summary, by implementing the above suggestions, online education platforms like Himalaya can effectively enhance system quality, thereby increasing user willingness for continuous usage and satisfaction.

5.2.3. Continuous Improvement of Platform Service Quality to Enhance User Satisfaction with Online Education Payment Platforms.

To continuously improve the service quality of online education platforms like Himalaya and enhance user willingness for continuous usage and satisfaction, here are some suggestions:

1.Excellence in Customer Service: Establish an efficient customer support system to ensure quick response and resolution of user inquiries and issues. This can be achieved by increasing customer service personnel, introducing intelligent customer service robots, or optimizing service processes. Provide regular training for customer service teams to improve their understanding of platform features, course content, and educational technology, enabling them to provide more professional and accurate service.

2.Personalized Service: Provide customized learning plans and recommendations based on users' learning goals, levels, and preferences to help users achieve learning objectives more effectively. Assign dedicated account managers to specific user groups (such as premium members) to provide one-on-one services, including learning consultations, problem-solving, and feedback follow-ups.

3.User Feedback and Improvement: Encourage user feedback and establish effective feedback collection and processing mechanisms. This includes online surveys, user forums, and direct contact channels. Adjust and optimize service processes and content based on user feedback to ensure the platform continuously meets user needs.

4.Transparency and Trust Building: Maintain openness and transparency about platform policies, processes, and changes, and promptly inform users of important information to avoid misunderstandings and distrust. Strengthen platform data security measures to protect user privacy and build user trust.

In conclusion, by implementing the above suggestions, online education platforms like Himalaya can effectively enhance service quality, thereby increasing user willingness for continuous usage and satisfaction.

5.3 Further Study

1. Explore the Continuous Payment Intention of Users on Other Platforms: This study took the Himalaya platform as a case to analyze the factors affecting users' continuous payment intention. Future research can be extended to other online education payment platforms, such as NetEase Cloud Class and Tencent Classroom, to verify the impact of information quality, system quality, and service quality on users' continuous payment intention under different platforms, and compare the relative importance of these factors on each platform.

2. In-depth Analysis of User Behavior Motivation: This study mainly focused on the impact of information quality, system quality, and service quality on users' continuous payment intention. Further research can delve into the motivations behind user behaviors, such as users' learning goals, career development needs, personal interests, etc., and how these motivations affect their choice and continued use of the platform.

3. Long-term Follow-up Research: The data collection and analysis in this study are based on cross-sectional data, which fails to reflect the dynamic changes in user behavior. It is recommended to conduct long-term follow-up research through regular surveys and data analysis to observe the changes in users' satisfaction and continuous payment intention at different time points, thereby gaining a more comprehensive understanding of user behavior patterns.

4. Exploring the Impact of Technological Innovation on User Behavior: With the development of technologies such as artificial intelligence, big data, and virtual reality, the service methods and content presentation forms of educational platforms are also evolving. Future research can explore how these technological innovations affect users' information acquisition, learning experience, and continuous usage intention, as well as how platforms should utilize these technologies to improve the quality of services.

In summary, while this study provides valuable insights into the factors influencing user satisfaction and continuous usage intention on online education payment platforms, there are numerous opportunities for further research.

References

Bai, C., & Liao, W. (2014). Research on customer satisfaction based on customer perceived value. *Journal of Nankai: Philosophy and Social Sciences,* (6), 14-20.

Bhattacherjee, A. B. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly, 25*(3), 351-370.

Cansev, E., et al. (2019). Emotion-oriented design in touch interfaces: A cognitive neuroscience perspective. *Journal of Cognitive Neuroscience.*

Chen, G., et al. (2022). Transforming user emotional cognition into technical requirements by integrating QFD and FBS methods. *Journal of Design Innovation*, *12*(3), 45-62.

Chen, S., & Huang, X. (2015). The impact of location on the utilization of mechanical parking facilities. *Journal of Urban Transport, 3*(4), 1-10.

Chen, Y., & Zhou, L. (2020). Prediction model of car ownership based on exponential smoothing method and Markov chain. *Journal of Changchun Engineering College (Natural Science Edition), 21*(01), 124-128.

Chen, Y., et al. (2021). Analysis and design theory of emotional factors in human-computer interaction. *Human-Computer Interaction*, *36*(2), 123–145.

Chiu, C., Huang, S., & Tsai, M. (2014). Cost-benefit analysis of mechanical parking systems in urban areas. *Journal of Transportation Economics and Management, 9*(2), 163-174.

Churchill, G., et al. (1982). An investigation into the determinants of customer satisfaction. *Journal of Marketing Research, 19*(4), 491–504.

Gan, Y., & Liu, X. (2010). Research on the guiding role of user Kansei cognition in product design. *Design Research, 3*(2), 44-50.

He, D., & Liu, J. (2000). Proposal for constructing the China Customer Satisfaction Index (CCSI). *World Standardization and Quality Management,* (10), 7-10.

Honig, et al. (2019). Cognitive errors and failures in robotics: Towards a comprehensive model. *Advances in Robotics*, *33*(15), 987–1005.

Huang, et al. (2020). Graphic visualization model based on user cognitive psychology. *Visual Computing for Industry, Art, and Education*, *3*(1), e015.

Ji, W., Lü, J., et al. (2022). *Research on design methods based on cognitive and geometric matching: Design methods and theory.* N.P.

Kuo, P., & Yang, J. (2016). The role of payment methods in enhancing customer experience at automated parking facilities. *Journal of Service Management and Marketing, 1*(4), 34-43.

Li, J., Zhang, K., Wang, M., & Chen, L. (2022). The impact of emotional cognition on humanoid robot appearance preferences based on eye-tracking experiments. International *Journal of Social Robotics*, *14*(5), 1123-1140. https://doi.org/10.1007/s12369-022-00868-z.

Li, L., & Zhang, Q. (2020). Application research in interface design based on user visual perception. *Journal of Design Science*, *15*(3), 45-60.

Li, M., & Wang, T. (2019). The influence of human-machine interface on user experience in mechanical parking facilities. *International Journal of Mechanical Engineering, 13*(2), 156-164.

Li, M., Huang, H., & Chen, J. (2020). Optimization of production efficiency in stereo garage manufacturing. *Journal of Intelligent Manufacturing, 32*(2), 145-153.

Li, X., & Zhao, H. (2021). Research on improving interactive interface compatibility based on user operation differences. *Journal of Human-Computer Interaction*, *36*(4), 512-528.

Li, Z., Wang, Y., Chen, X., & Liu, J. (2021). A framework for enhancing brand value by combining service design and cognitive psychological characteristics. *Journal of Brand Management*, *28*(3), 245-263.

Lin, J., Li, M., & Wang, T. (2016). User perception of safety in automated parking systems. *Journal of Parking Technology, 8*(2), 45-52.

Liu, C. (2021). Research on car styling design methods based on the cognitive psychology and judgment experiments of young consumers. *International Journal of Design*, *15*(2), 45-60.

Liu, J., Chen, W., Zhang, Y., & Li, X. (2021). Constructing an adaptive model of product styling associative thinking. *Design Studies*, 74, 101016.

Liu, Y., Fei, Y., & Wang, J. (2020). Research on the current situation and development of three-dimensional garages in China. *Equipment Manufacturing Technology, 20*(05), 221-223.

Lu, H., & Skoog, F. (2017). The influence of maintenance on customer satisfaction in parking facilities. *Proceedings of the Parking Conference,* 29, 113-120.

Luo, Q., & Chen, J. (2019, August 25). Why are three-dimensional parking facilities idle? *Transportation Research Part A: Policy and Practice*, 128, 162-175.

Nagamachi, M. (1995). Theory of Kansei engineering and its application in product design. *Journal of Engineering Design, 15*(2), 34-40.

Qian, Y., Zhang, L., Wang, H., & Chen, X. (2021). Optimizing product control panel layout from the perspective of human-machine theory. *Human Factors and Ergonomics in Manufacturing & Service Industries*, *31*(4), 412-428.

Shi, F., & Xu, J. (2008). Kansei evaluation in automotive design based on fuzzy theory. *Automotive Engineering*, *40*(9), 823-828.

Su, J., & Zhou, M. (2005). Research on product styling design methods based on Kansei images. *Design Science, 2*(1), 72-78.

Su, Y., & Chen, L. (2017). The effect of added services on customer loyalty in automated parking systems. *International Journal of Service Innovation, 2*(1), 67-78.

Tang, J., Shao, L., & Ma, H. (2018). The impact of multisensory design on user perception in stereo garages. *Journal of Parking Structure and Technology, 10*(3), 67-75.

Wang, L., Chen, Y., Zhang, H., & Li, J. (2021). A design scheme generation model integrating Kansei engineering and knowledge engineering. *International Journal of Industrial Ergonomics*, 84, 103147.

Wang, T., & Chen, Y. (2019). Safety and maintenance issues in mechanical parking facilities. *International Journal of Mechanical Engineering, 17*(4), 78-85.

Wang, Y., & Huang, G. (2018). Space optimization design for stereo garages. *Journal of Intelligent and Robust Systems, 9*(3), 569-582.

Wu, J., & Chiang, Y. (2020). Reducing cognitive load in stereo garage operations through intelligent system design. *Journal of Intelligent Transportation Systems, 24*(4), 323-332.

Xie, W., & Xin, X. (2021). The intersection of cognitive psychology and user experience design. *Journal of Applied Psychology*, *106*(8), 1234-1256.

Xu, J., & Gan, Y. (2009). Application of genetic algorithms in the study of quantitative relationships between Kansei images and product shape features. *Computer-Aided Design, 41*(11), 2241-2248.

Xu, J., & Zhao, X. (2021). Safety evaluation of automated mechanical parking systems. *Journal of Parking Structure and Technology, 9*(1), 34-42.

Xu, W. (2015). Research on ergonomics and user-centered design concepts in the intelligent era. *Human Factors Engineering, 27*(4), 32-36.

Xu, X., Li, Y., Wang, Z., & Chen, H. (2022). Research on cognitive load model in virtual interaction systems. *International Journal of Human-Computer Interaction*, *38*(12), 1123-1138.

Yang, X., Liu, Y., Wang, Z., & Chen, H. (2021). Design research on the transformation of user fuzzy cognition into rational factor sets. *Design Science*, 7, e25.

Yao, G., & Liu, X. (2020). Analysis and prediction of the limit value of urban car ownership. *Urban Traffic, 18*(05), 110-119.

Yi, Q. (2020). "Parking difficulty" has become an important livelihood issue. *Urban Transport*, *18*(4), 45-52.

Yu, F., et al. (2018). Qualitative and quantitative evaluation of the EDM application framework SUM-IF. *Data Science and Applications, 17*(5), 122-130.

Zhang, J., Wu, P., Li, X., & Chen, H. (2021). A literature review of media user emotion research. *Communication Studies*, *72*(3), 415-432.

Zhang, J., Wu, P., Li, X., Chen, Y., & Wang, L. (2021). A literature review of media user emotion research. Media Psychology, *24*(4), 456-475.

Zhang, K., Li, M., Wang, Y., & Chen, X. (2021). Subdividing factors of product design experience based on user cognition. *International Journal of Design*, *15*(2), 45-62.

Zhang, W., Yu, S., Li, H., Chen, X., & Wang, Q. (2021). Constructing mental models of intelligent robotic systems with a focus on cognitive differentiation. *International Journal of Social Robotics*, *13*(5), 789-805.

Zhang, Y., Wang, X., & Liu, J. (2018). Research on the operation and management of mechanical parking systems. *Journal of Parking Technology, 4*(3), 56-60.

Zhang, Y., Wang, X., & Liu, J. (2020). Application of EEG-based usability evaluation in automated parking systems. *Journal of Parking Technology, 12*(4), 78-85.

Zhao, C. (2017). The current status of standardization of mechanical parking equipment in China. *Construction Machinery,* (05), 28-31.

Zhou, Z., Li, X., Wang, Y., & Chen, H. (2022). Product development clustering strategies to improve user cognitive ambiguity. *Journal of Engineering Design*, *33*(4), 287-305.

Zhu, J. (2018, May 15). The three-dimensional garage in this community in Wenzhou has been idle for 8 years, but residents have nowhere to park. *Wenzhou Daily*, p. A3.

Appendix

Dear Madam/Sir,

Greetings!

I am a graduate student at Siam University in Thailand, conducting a study on the factors influencing the willingness of users to continue paying for education-related platforms. I am in need of relevant research data. I kindly request you to fill out the following questionnaire based on your specific circumstances. The questionnaire is divided into two parts. This survey is solely for academic research purposes and will not have any negative impact on you. Please rest assured while answering. Your support is sincerely appreciated! Thank you for participating in this survey. The survey will be conducted anonymously, and your information will be kept confidential. Once again, thank you for your cooperation!

Note: (This questionnaire specifically concerns the knowledge payment platform, namely Himalaya. If you have not used Himalaya before, you can end the questionnaire directly, and there is no need to answer the following questions. Thank you for your understanding!)

Best regards,

PART Ⅰ:

1. Your gender:

A.Male B.Female

2. Your age group?

A. Below 18 years B. 18-25 years C. 25-30 years D. 30-40 years E. 40-50 years F. 50 years and above

3. Your highest education level?

A. High school and below B. Bachelor's degree

C. Master's degree D.Doctor's degree

4. Your occupational status

A. Students B. Business workers C. Public officials D. Self-employed E. Others

5. Your monthly income range?

A3000 or below B. 3000~5000 C.5000~8000

D.8000~12000 E.12000 or above

6. Do you regularly browse pay-for-knowledge type platforms (Himalaya)?

A. Yes B. No

7. Do you have any experience of paying for knowledge-based platforms (Himalaya)?

A. Yes B. No

Part II: Please indicate the extent to which you agree with the following statements. Choose the most appropriate option and place a "√" on the corresponding number. The

questionnaire uses a Likert scale, with scores ranging from 1 to 5. 1 indicates strongly disagree (or strongly disagree), 2 indicates somewhat disagree (or somewhat disagree), 3 indicates neutral, 4 indicates somewhat agree (or somewhat agree), and 5 indicates strongly agree (or strongly agree).

Measurement items	Strongly disagree	disagree	neutral	agree with	agree strongly
Platform Information Quality					
1. Are you satisfied with the accuracy of the content of paid online education courses?					
2. Are you satisfied with the professionalism of the content of paid online education courses?					
3. Are you satisfied with the practicality of the content of paid online education courses?					
4. Are you satisfied with the entertaining content of paid online education courses?					
5. Satisfied with the comprehensiveness and richness of the content of online education paid courses?					
6. Are you satisfied with the timeliness of updating the content of online education paid courses?					
7. Are you satisfied with the security of switching to operating an online education payment platforms?					
Platform System Quality					
1. Education paid platforms are easy to operate satisfactory?					
2. Are you satisfied with the stability of the platform system for the education payment category?					

3. Are you satisfied with the user-friendliness of the interface of the paid education platform?					
4. Are you satisfied with the reasonableness of the functional module settings of the education payment platform?					
5. Are you satisfied with the functional top-up security of the education pay-per-view platform?					
6. Are you satisfied with the offline playback smoothness of the educational pay-per-view platform?					
7. Are you satisfied with the compatibility of the platform system for the education payment category?					
Platform Service Quality					
1. Are you satisfied with the reliability of the customer service line answering questions on paid education platforms?					
2. Education paid platform customer service line answer questions in a timely manner to respond to the satisfaction of the sex?					
3. Education paid platform customer service line answer the question and answer accurately and satisfactorily?					
4. Education paid platform customer service line recommended custom fit course satisfaction?					

5. Are you satisfied with the frequency of return visits to paid education platforms?					
6. Are you satisfied with the courses pushed by paid education platforms?					
7. Satisfied with the reasonableness of the pricing of the paid education platforms?					
Satisfaction with Online Education Payment Platforms					
1. Are paid-for-education platforms satisfied with improving learning outcomes?					
2. Is there an opportunity to reach out to more knowledge satisfaction in the paid education category?					
3. Are many of the knowledge products of the paid education platforms satisfactory in terms of feeling interesting?					
4. Are you satisfied with the knowledge you learnt from the paid platforms in terms of applying it to your life, study and work?					
5. Satisfied with the overall feeling brought by the paid education platforms?					