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Factors Influencing Postgraduate Students' Satisfaction and Intention to Use E-Books: A Study at Sichuan University, China

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Abstract

Purpose: This article aimed to research the critical factors impacting postgraduate students' user satisfaction and intention to use electronic books (e-books) in Sichuan University, China. The conceptual framework presented a cause-and-effect connection between task-technology fit, system quality, service quality, information quality, attitude to use, user satisfaction, and intention to use. **Research design, data, and methodology:** The researcher adapted a quantitative technique (n=500) to distribute the questionnaire to postgraduate students at Sichuan University, China. Non-probability sampling included judgmental sampling to select students in Sichuan University who are from four different majors, quota sampling to define the sample size, and convenience sampling to collect data and distribute the questionnaires online. The researcher utilized structural equation modeling (SEM) and confirmatory factor analysis (CFA) to conduct the data analysis, including model fit, reliability, and construct validity. **Results:** The results revealed that task-technology fit, system quality, and service quality significantly affected user satisfaction. Information quality affects students' intention to use electronic books. Attitude to use impacted considerably students' intention to use electronic books. In addition, students' user satisfaction also affects their intention to use electronic books. **Conclusions:** The statistics suggested that to increase of digital industry revenue, operators of electronic books should consider these factors when they release their products and electronic books.

Keywords: Task-Technology Fit, Information Quality, Attitude to Use, User Satisfaction, Intention to Use

JEL Classification Code: E44, F31, F37, G15

1. Introduction

Subba Rao (2003) defined e-books as text in digital form or digital reading material and another electric form to display on e-readers. Gardiner and Musto (2010) described an e-book as "any document in a digital format which could be downloaded to an electronic device to make it visible." It could be obtained via a variety of devices, such as computers, mobile phones, and e-readers. According to Schilit et al. (1998), e-books have a long history dating back to the 1970s. With the development of technology, the way of reading has changed. Cheek and Hartel (2012) demonstrated a brief historical development of e-books. In 1931, a talking book was launched only for physically disabled and blind individuals by the American Foundation for the Blind. In

1976, e-books were available on a friendly reading machine for the blind. The machine could translate print books into spoken words. In 1986, e-books were distributed in libraries, especially public libraries. In 1991, internet-based e-book services were started. Later on, more and more e-book readers were produced with the development of digital technology.

Raitt (1999) defined a digital library as an organization that can provide public electrical resources they want, such as specialized staff. Xiao (2003) argued that a digital library is a distributed system that can store and effectively use various electronic documents, which end users can easily access through network transmission—Borrego et al. (2007) surveyed using e-journals among users at Catalan University. The result showed that e-journals are widely accepted and

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used to search for information. Moreover, the number of young researchers was large because they were familiar with information technology.

Abdullah and Gibb (2008) argued that the percentage of students who knew and used e-books was 72%. Corlett-Rivera and Hackman (2014) also found that neither faculty nor students learned about the comprehensive e-book collection in their university libraries. Jung et al. (2011) revealed that the age and degree of education significantly impacted the awareness of e-books. Wang and Bai (2016) suggested that almost postgraduate students used e-books for academic purposes.

According to the 20th National Reading Survey Report, the exposure rate of digital reading methods in 2022 was 80.1%, which is higher than 79.6% in 2021 (http://www.chuban.cc/yw/202304/t20230423_32710.html). The results showed that digital reading has played a more and more important role in most people's lives. However, according to Wei Yushan (2023), the result demonstrated that the high exposure rate of e-books could have brought higher income. Moreover, Qi and Gao (2022) argued that the number of people who use e-books for study and research was 2% lower than that for entertainment and leisure, indicating that more people are concerned about the role of e-books in entertainment and leisure.

To solve the above-mentioned problems, university students should be addressed as special users. They use the digital industry in their daily and learning lives. E-books have been a hot topic for a long time, especially for students in the southwest of China. In return, postgraduate students are also recipients of new things. They are an ideal sample for studying the intention to use and users' satisfaction with e-books. They were not only willing to pay for the e-books, but some of them have been indulging in e-books, which seriously impact their learning and physical and mental health.

Khan and Ahmed (2013) revealed that the users' satisfaction with using e-resources was affected by many factors, such as interface usability, service variety, system performance, collection quality, user feedback, and so on. Zheng (2014) believed that using digital books was to meet users' needs for entertainment and leisure. Chiu et al. (2016) demonstrated the relationships between system quality, service quality, service quality, and user satisfaction using mobile e-books. The connection between user satisfaction and intention to use can also be studied in their research. Based on the prior study, five variables were considered as factors influencing postgraduate students' user satisfaction (US) and intention to use (IU) electronic books. They were task-technology fit (TTF), system quality (SQ), service quality (SVQ), information quality (IQ), and attitude to use (AU).

Consequently, the researcher pointed out that electronic books are part of postgraduate students' daily learning. Hence, this study aims to investigate the factors impacting user satisfaction and intention to use electronic books for doctoral students from four majors at Sichuan University.

2. Literature Review

2.1 Task-Technology Fit

Chang et al. (2015) found that task-technology fit significantly and positively affects user satisfaction. If technology can fit tasks well, it will improve user satisfaction with using technology. Cheng (2019) has proved that task-technology fit can significantly improve user satisfaction. Isaac et al. (2017) demonstrated that task-technology fit positively influences user satisfaction and performance impact. Huang et al. (2017) investigated how the task-technology fit (TTF) affected the user satisfaction. In the survey, they found when it was easy to find e-books for users, they would feel satisfied with it. As a result, they discovered that task-technology fit (TTF) had a direct and positive effect on user satisfaction.

Robles-Flores and Roussinov (2012) revealed that their satisfaction with the technology will increase sharply when it can help users finish their work or tasks efficiently. In other words, user satisfaction was affected by task-technology fit (TTF) to some degree. Aiken et al. (2013) revealed the connection between task-technology fit (TTF) and satisfaction. The result demonstrated that task-technology fit (TTF) positively influenced satisfaction when it comes to knowledge sharing. Therefore, the hypothesis of this study was come up based on the previous studies, as follows:

H1: Task-technology fit has a significant impact on user satisfaction.

2.2 System Quality

Aws et al. (2023) study concluded that a high-quality system based on functional characteristics increases user satisfaction with business intelligence. Laumer et al. (2017) have done some research on system quality. His studies have confirmed that system quality positively affects user satisfaction.

Chiu et al. (2016) revealed that displaying search results on mobile devices in terms of e-books and system quality could positively affect user satisfaction. Similarly, Nelson et al. (2005) demonstrated that the system quality of business intelligence technologies positively influences user satisfaction, especially response time, accessibility, and flexibility of the system. Al-Okaily et al. (2021) suggested that user satisfaction would be increased if the system quality

could improve user tasks and productivity. System quality could affect user satisfaction. Many studies revealed a positive relationship between system quality and user satisfaction (Gaardboe et al., 2017). Therefore, the hypothesis of this study was come up based on the prior studies, as follows:

H2: System quality has a significant impact on user satisfaction.

2.3 Service Quality

Wixom and Todd (2005) found significant results regarding the connection between service quality and user satisfaction in information system use. In their study, they suggested that service quality also impacts the use of information systems. Thus, providing high-level service quality is key to increasing user satisfaction in e-commerce. Seddon (1997) found that high service quality affects user satisfaction and performance. In particular, these quality services are supplied to solve users' problems in a timely way and draw users' interests and needs.

Manaf and Aws (2022) studied the relationship between the quality of service and user satisfaction. They found that service quality is less important than system and information quality in impacting users' satisfaction. Alzahrani et al. (2019) proved that service quality positively affects user satisfaction. Tam et al. (2019) revealed that user satisfaction was affected obviously by the service quality in terms of e-commerce. Therefore, the hypothesis of this study was come up based on the prior studies, as follows:

H3: Service quality has a significant impact on user satisfaction.

2.4 User Satisfaction

Qutaishat (2012) said satisfaction affected users' intention to use e-government services. In other words, intention to use was related to user satisfaction. Similarly, AL Athmay et al. (2016) researched E-government adoption and user satisfaction: an empirical investigation. The results concluded that user satisfaction has a direct influence on intention to use.

Dragana et al. (2022) studied the role of the hedonistic and utilitarian quality dimensions in enhancing user satisfaction in mobile banking. The results showed that satisfaction strongly affected the intention to use mobile banking.

Therefore, the hypothesis of this study was come up based on the prior studies, as follows:

H4: User satisfaction has a significant impact on intention to use.

2.5 Information Quality

Ali et al. (2022) investigated factors affecting mobile banking app adoption using the adaptive structuration theory. They concluded that information quality significantly impacts the intention to use mobile banking apps. DeLone and McLean (2003) argued that good information quality improved users' willingness to use the technology. That is, the intention to use was affected by the information quality of the product. Petter et al. (2008) demonstrated the same opinion in their research.

Iqbal and Rafiq (2023) confirmed that information quality directly and positively affects the intention to use digital libraries. Zheng et al. (2013) argued that lower-quality information led to lower intention to use a certain technology, which means information quality significantly and positively affected the intention to use. Therefore, the hypothesis of this study was come up based on the prior studies, as follows:

H5: Information quality has a significant impact on intention to use.

2.6 Attitude to Use

Ali et al. (2017) found that social influence has the most significant effect on the intention to use select Islamic credit cards. Attitude toward Islamic credit cards has a positive effect on intention to use. Amankwa et al. (2023) revealed that workers' attitudes toward using e-wallets positively influence their intention to use them during the COVID-19 pandemic. Sinha and Bag (2023) studied the relationship between students' attitudes towards technology mediates and perceived usefulness, ease of use, and intention to use. Moreover, attitudes toward technology significantly affect students' intention to use online education.

Shen et al. (2006) observed the relationship between attitude and intention to use technology. That is, attitudes toward technology significantly impact the intention to use it. Sujeet and Jyoti (2013) found a similar connection between attitude and intention to use. Dyah et al. (2021) investigated the effect of gender, social influence, and emotional factors on the usage of e-books by Generation Z in Indonesia. Their study showed that Generation Z's intention to use e-books was shaped by their attitude toward the use of e-books. It proved that attitude to use has a significant effect on the intention to use e-books. Therefore, based on the above literature, the following research hypotheses emerged for this paper.

H6: Attitude to use has a significant impact on intention to use.

2.7 Intention to use

Intention to use refers to the likelihood or willingness of users to adopt and engage with a specific technology or system. It is a core concept within the Technology Acceptance Model (TAM), which suggests that users' intention to use technology is influenced by their attitudes toward it. Lee (2009) defined intention to use as the likelihood that a user will engage with a technology, such as information technology applications, based on their perceptions and attitudes towards it. This concept is crucial for understanding the adoption of technologies.

In the context of e-government, AL Athmay et al. (2016) found that citizens' attitudes toward e-government services shape their intention to use them. If users perceive these services as beneficial, their intention to continue using them increases. Mohammadi (2015) also highlighted that intention to use is widely used in information systems research, especially regarding the adoption of technology. It reflects a user's readiness to accept and use technology, often driven by factors such as perceived usefulness, ease of use, and personal attitudes.

Gardiner and Musto (2010) and Subba Rao (2003) further explored the intention to use in the context of digital technologies like e-books, where users' willingness to adopt this technology is influenced by their ability to interact with it across various devices, such as computers, mobile phones, or e-readers. Therefore, intention to use is a fundamental concept in evaluating the success and continued use of new technologies.

3. Research Methods and Materials

3.1 Research Framework

The task-technology Fit model (TTF), Information Systems Success Theory (ISST), and Technology Acceptance Model (TAM) were the three theories or models used in this research. The conceptual framework of this paper was developed based on these three theories and three conceptual frameworks. The task-technology Fit (TTF) model was put forward by Goodhue and Thompson (1995). Information System Success Theory (ISST) was introduced by DeLone and McLean (2003). The Technology Acceptance Model (TAM) was first proposed by Davis (1989).

The researcher has developed a conceptual framework for this study, described in Figure 1.

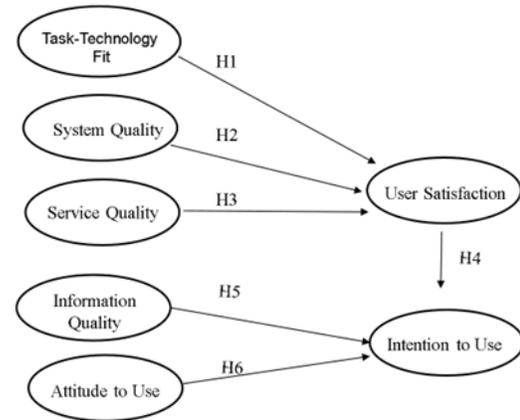


Figure 1: Conceptual Framework

H1: Task-technology fit has a significant impact on user satisfaction.

H2: System quality has a significant impact on user satisfaction.

H3: Service quality has a significant impact on user satisfaction.

H4: User satisfaction has a significant impact on intention to use.

H5: Information quality has a significant impact on intention to use.

H6: Attitude to use has a significant impact on intention to use.

3.2 Research Methodology

The questionnaire for this study passed validity and reliability tests using Cronbach's Alpha method. (Hartog & Verburg, 2004). The researcher distributed the questionnaires to the target respondents and received acceptable feedback of 500 pieces. They participated in the interview voluntarily. We analyzed this feedback data using statistical tests with SPSS AMOS. When the convergence's accuracy and validation needed to be valued, the researcher used Confirmatory factor analysis (CFA). The (CFA) was adapted to fit the conceptual framework of this study. In addition, the validity and reliability of the model were ensured by using the above measures. Based on these efforts, the researcher investigated the causal relationships between the variables using structural equation modeling (SEM).

3.3 Population and Sample Size

The researchers selected postgraduate students from four majors at Sichuan University in China using non-probability, judgmental, and quota sampling. 500 questionnaires were

distributed using an online platform that provides functions equivalent to Amazon Mechanical Turk.

3.4 Sampling Technique

This study employed a quantitative method using non-probability sampling to gather data. Questionnaires were distributed to the target population via an online platform, as suggested by Steffens et al. (2014). The study focused on postgraduate students from four different majors at Sichuan University: pharmacy, basic medical sciences, clinical medicine, and nursing. The aim was to examine the factors influencing postgraduate students' user satisfaction and intention to use electronic books.

The questionnaire was structured into three main sections. The first section consisted of screening questions to ensure the relevance of respondents. The second section included a 5-point Likert scale, which was used to measure six key hypotheses of the study. Respondents rated their agreement with each statement on a scale from 1 (strongly disagree) to 5 (strongly agree). The third section gathered demographic information, such as gender, age, frequency of e-book use, methods of accessing e-books, and the respondents' aims or plans for using electronic books.

A pilot test was conducted to ensure the questionnaire's reliability and validity. The researcher obtained expert approval using the Item-Objective Consistency Index (IOC) score before administering the pilot survey to 50 participants. Table 1 in the study provides detailed information on the sampling process used.

Table 1: Sample Units and Sample Size

Majors interviewed	Population Size	Proportional Sample Size
Pharmacy	600	121
Basic Medical Sciences	489	98
Clinical Medicine	945	190
Nursing	451	91
Total	2,485	500

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

Demographic information collected from participants was on the gender, frequency, and age of postgraduate students. We distributed questionnaires to 500 doctoral students from four majors at Sichuan University in China. There were 238 men and 262 women, accounting for 47.6% and 52.4% respectively. Among them, 42 students used electronic books once or twice a week, accounting for 8.4%. 135 students used electronic books three to four times a week, accounting for 27%. 205 students used electronic books five to six times a week, accounting for 41%. 118 students used electronic books more than six times a week, accounting for 23.6%. All interviewees were older than 20 years old. 24 students aged ranging from 20 to 22, accounting for 4.8%. 136 students aged ranging from 22 to 24, accounting 27.2%. 340 students aged above 24, accounting 68%. Table 2 presents demographic information for this study.

Table 2: Demographic Profile

Demographic and General Data (N=500)		Frequency	Percentage
Gender	male	238	47.6%
	female	262	52.4%
Usage frequency for a week	1-2 times	42	8.4%
	3-4 times	135	27%
	5- 6times	205	41%
	Above 6 times	118	23.6%
Age of students	Between 18-20 years old	0	0%
	Between 20-22 years old	24	4.8%
	Between 22-24years old	136	27.2%
	Above 24 years old	340	68%

4.2 Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis (CFA) was adapted to measure each variable in the conceptual framework of this study. The measurement results revealed that all scale items for each variable were significant. What's more, the factor loading values of each scale item meet the requirements, indicating that the conceptual framework of this study was acceptable. None of the factor loading values for this study were lower than 0.30, and all were higher than 0.80. All of the p-values were less than 0.05. All construct reliabilities were greater than 0.80, higher than the required 0.7. The lowest Average Variance Extracted (AVE) value was 0.901, greater than 0.5. All these estimates were significant, and they are presented in Table 3.

Table 3: Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Variables	Source of Questionnaire (Measurement Indicator)	No. of Item	Cronbach's Alpha	Factors Loading	CR	AVE
Task-Technology Fit (TTF)	Huang et al. (2017)	4	0.943	0.873-0.912	0.807	0.944
System Quality (SQ)	Chiu et al. (2016)	4	0.944	0.873-0.919	0.809	0.944
Service Quality (SVQ)	Chiu et al. (2016)	4	0.943	0.876-0.919	0.806	0.943
Information Quality (IQ)	Chiu et al. (2016)	4	0.945	0.876-0.914	0.812	0.945
User Satisfaction (US)	Jeong (2012)	4	0.939	0.870-0.902	0.795	0.939
Intention to Use (IU)	Jeong (2012)	4	0.941	0.869-0.914	0.801	0.901
Attitude to Use (AU)	Dyah et al. (2021)	3	0.920	0.866-0.913	0.794	0.920

The research utilized many indicators of model fit in the CFA test, such as GFI, AGFI, NFI, CFI, TLI, and RMSEA. The researcher presented this study's convergent and discriminant validity in Table 4. These two values were validated to be reasonable. All the measurements validated the validity of the structural model estimated in this study.

Table 4: Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	<5.00 (Al-Mamary & Shamsuddin, 2015; Awang, 2012.)	323.517/303 or 1.068
GFI	≥0.85 (Sica & Ghisi, 2007)	0.954
AGFI	≥0.80 (Sica & Ghisi, 2007)	0.943
NFI	≥0.80 (Wu & Wang, 2006)	0.976
CFI	≥0.80 (Bentler, 1990)	0.998
TLI	≥0.80 (Sharma et al., 2005)	0.998
RMSEA	<0.08 (Pedroso et al., 2016)	0.012
Model Summary		Acceptable Model Fit

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, NFI = normalized fit index, CFI = comparative fit index, TLI = Tucker Lewis index, and RMSEA = root mean square error of approximation

Discriminant validity was evaluated by calculating the square root of the average variance extracted (AVE) for each variable and comparing it to the correlation coefficients between that variable and the others. For adequate discriminant validity, the square root of the AVE for each variable should be greater than the correlation coefficients between that variable and the other variables. The square roots of the AVE values and the corresponding correlation coefficients are presented in Table 5. The results indicated that the correlations among all the variables in this study met the criteria for acceptable discriminant validity.

Table 5: Discriminant Validity

	TTF	SQ	SVQ	IQ	US	IU	AU
TTF	0.898						
SQ	0.365	0.899					
SVQ	0.355	0.384	0.987				
IQ	0.347	0.362	0.311	0.901			
US	0.396	0.345	0.362	0.372	0.892		
IU	0.365	0.379	0.468	0.396	0.408	0.895	
AU	0.419	0.392	0.421	0.332	0.362	0.392	0.891

Note: The diagonally listed value is the AVE square roots of the variables
Source: Created by the author.

4.3 Structural Equation Model (SEM)

Al-Mamary and Shamsuddin (2015) suggested that the Chi-square/degrees-of-freedom (CMIN/DF) ratio for model fit measures was acceptable when the value was less than 5.0. Awang (2012) holds the same opinion.

In Sica and Ghisi (2007), GFI was equal to or higher than 0.85, but AGFI was equal to or higher than 0.8. CFI was equal to or greater than 0.80, as suggested by Bentler (1990). NFI was equal to or higher than 0.8 in Wu and Wang (2006) research. Sharma et al. (2005) suggested that the TLI was equal to or greater than 0.80. Pedroso et al. (2016) recommended that the RMSEA be lower than 0.08. The researchers used SPSS AMOS version 26 for the SEM calculations and adjusted the model. The result presented that the fit index results for this research presented a good fit. CMIN/DF = 2.755, GFI = 0.863, AGFI = 0.837, NFI = 0.934, CFI = 0.957, TLI = 0.953 and RMSEA = 0.059. The values are demonstrated in Table 6.

Table 6: Goodness of Fit for Structural Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	<5.00 (Al-Mamary & Shamsuddin, 2015; Awang, 2012.)	875.692/318 or 2.755
GFI	≥0.85 (Sica & Ghisi, 2007)	0.863
AGFI	≥0.80 (Sica & Ghisi, 2007)	0.837
NFI	≥0.80 (Wu & Wang, 2006)	0.934
CFI	≥0.80 (Bentler, 1990)	0.957
TLI	≥0.80 (Sharma et al., 2005)	0.953
RMSEA	<0.08 (Pedroso et al., 2016)	0.059
Model Summary		Acceptable Model Fit

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, NFI = normalized fit index, CFI = comparative fit index, TLI = Tucker Lewis index, and RMSEA = root mean square error of approximation

4.4 Research Hypothesis Testing Result

Based on the regression weights and R2 variances for each variable, the researcher investigated the significance of the model used in this study. The results of the calculations are shown in Table 7. Six hypotheses of this study were all supported. Task-technology fit affected User Satisfaction ($\beta=0.288$). System Quality affected User Satisfaction ($\beta=0.196$). Service Quality affected User Satisfaction ($\beta=0.240$). User Satisfaction did not affect Intention to Use ($\beta=0.266$). Information Quality affected Intention to Use ($\beta=0.259$). Attitude to Use affected Intention to Use ($\beta=0.255$).

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-value	Result
H1: TTF→US	0.288	6.408*	Supported
H2: SQ→US	0.196	4.421*	Supported
H3: SVQ→US	0.240	5.388*	Supported
H4: US→IU	0.266	5.971*	Supported
H5: IQ→IU	0.259	5.866*	Supported
H6: AU→IU	0.255	5.699*	Supported

Note: * $p<0.05$

Source: Created by the author

From the results in Table 7, the researcher inferred some conclusions: establishment of H1, H2, and H3 demonstrated that postgraduate students' user satisfaction was affected by three other factors when they used electronic books. Task-technology fit was an important factor of user satisfaction, and the standardized coefficient value in the structural path is 0.288. System quality was an important user satisfaction factor, and the standardized coefficient value in the structural path is 0.196. Service quality was an important factor of user satisfaction, and the standardized coefficient value in the structural path is 0.240. As for H4, H5, and H6, the result demonstrated that user satisfaction was an important factor in the intention to use electronic books, and the standardized coefficient value in the structural path is 0.266. Information quality was an important factor in the intention to use electronic books, and the standardized coefficient value in the structural path is 0.259. Attitude to use was an important factor of intention to use electronic books, and the standardized coefficient value in the structural path is 0.255.

5. Conclusion and Recommendation

5.1 Conclusion and Discussion

The purpose of this study was to provide a comprehensive analysis and understanding of the factors impacting postgraduate students' user satisfaction and intention to use e-books in Sichuan University, China. Since the emergence of e-books, there has been a lot of research on them. Especially since 2009, research on e-book users has gradually emerged in China. Although there was a lot of research on e-books, they did provide a number of significant insights into the acceptance of e-books. However, the quantitative research on factors that impact user satisfaction and intention to use e-books was surprisingly limited.

Moreover, much research showed that the income of electronic books (e-books) stayed the same with the development of digital industry revenue. Therefore, it was necessary to investigate factors impacting postgraduate students' user satisfaction and intention to use e-books at Sichuan University, China. At the same time, it has positive implications in preventing people from indulging in e-books for entertainment. This study advanced six hypotheses, which explored the relationships between the factors.

The target population of this study was postgraduate students in Sichuan University who were from four different majors: Pharmacy, Basic Medical Sciences, Clinical Medicine, and Nursing. 500 doctoral students who had experience using electronic books for more than one year accepted the questionnaire. They participated in the questionnaire for this study voluntarily. We analyzed the data from these questionnaire responses. The analysis of this data supported six relationships of the conceptual framework of this paper. Based on previous related research, task-technology fit, system quality, and service quality were adapted as the factors affecting user satisfaction. Then, user satisfaction, information quality, and attitude to use were adapted to investigate the aspects of intention to use. User satisfaction played a mediating role in influencing the intention to use electronic books. The tests' results demonstrated that these data's convergent validity, composite reliability, Cronbach's alpha reliability, factor loadings, mean ITEMuare extraction analysis, and discriminant validity were all acceptable. The researcher measured the 500-point sample data using SPSS and JAMOVI. The conceptual framework of this study passed the AMOS test.

The result of data from the 500 questionnaires passed the confirmatory factor analysis CFA measure. The CFA results indicated that the data associated with this study was a reasonable fit. It was appropriate to use the factor structure

and validation model for this study (West, 2002). The researcher used structural equation modeling (SEM) to analyze the impact of postgraduate students' user satisfaction and intention to use electronic books at Sichuan University, China. These results cleared that the research hypotheses presented in this paper were proved. Six hypotheses in the study were all supported.

The results demonstrated that, firstly, task-technology fit directly impacted user satisfaction when using electronic books in postgraduate students' daily learning lives. System quality also had a direct impact on user satisfaction, and service quality had a direct effect on user satisfaction. Their influence was significant.

Secondly, user satisfaction is the mediate variable influencing the intention to use electronic books. Information quality had a direct impact on their intention to use. Attitude to use had a direct influence on their intention to use. These three factors are significant in postgraduate students' daily learning life. This was the operational mechanism found in this study. All in all, this quantitative study provides support and reference for operators of electronic books (e-books) to develop better products, which may bring changes in increasing the income of electronic books (e-books) and preventing postgraduate students from addicting electronic books (e-books).

5.2 Recommendation

This paper screened factors affecting user satisfaction and intention to use electronic books for postgraduate students. The direct factors were the task-technology fit, system quality, service quality, information quality, and attitude to use—these five factors, together with user satisfaction and intention to use, formed the seven variables in this paper. Based on the findings of this paper, we recommend the following. Firstly, for postgraduate students, the electronic books' operator could consider five factors when promoting user satisfaction and intention to use electronic books. The five factors were shown: task-technology fit, system quality, service quality, information quality, and attitude to use. For example, when they use electronic books, the system quality significantly affects postgraduate students' satisfaction, so the operators of electronic books should make better systems to satisfy the reading needs of postgraduate students. Similarly, the better the information quality of electronic books, the stronger the intention to use electronic books for doctoral students.

Secondly, this paper identified the connections between these seven variables. These relationships connected these seven variables into a whole and constructed the paper's conceptual framework. This conceptual framework demonstrated the mechanisms that influence user satisfaction and intention to use electronic books of

postgraduate students. The operator of electronic books should optimize this operational mechanism to enhance user satisfaction and intention to use electronic books.

5.3 Limitation and Further Study

The limitations of this study were that the variables had an individual level, and the date that adapted to value the variables in the study was from a certain period, but not a duration of time. (Glick, 1985). In addition, considering the subject matter of this study, this paper only surveyed the user group of medicine-related students, and other majors, such as art or technology, were not included. Moreover, this paper only covered a certain university in Chengdu. Researchers should investigate a wider range of specific user groups for electronic books in further study. It would be interesting and beneficial to do so to conduct a comparative analysis of different user groups. It may show the exact opposite result.

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