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Behavioral Intention to Use Mobile Reading Apps Among Female Students in Chengdu, China

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Abstract

Purpose: This paper analyzes the factors affecting behavioral intentions of female students in Chengdu, China, to use and purchase mobile reading applications. The conceptual framework proposes the causal relationship among perceived value, satisfaction, service quality, trust, social influence, perceived usefulness, perceived ease of use and behavioral intention. **Research design, data, and methodology:** In this study, 840 female students were investigated by using judgmental, stratified random, and convenience sampling. The primary data collection tool was a questionnaire. Statistical software was used for data analysis, using confirmatory factor analysis (CFA) and structural equation model (SEM). The validity and reliability test were accounted to verify the data. **Results:** Perceived value and service quality significantly impact satisfaction towards trust and behavioral intention. Perceived ease of use has a significant impact on perceived usefulness. Furthermore, behavioral intention is significantly impacted by social influence and perceived usefulness but not by perceived ease of use. **Conclusion:** Software developers should pay attention to consumer needs to be able to attract college students with high-quality content and ensure payment security. To sum up, the findings are helpful for mobile reading developers to enhance the behavioral intention to purchase and use the mobile reading apps in China.

Keywords: Mobile Apps, Satisfaction, Trust, Behavioral intention, China

JEL Classification Code: E44, F31, F37, G15

1. Introduction

China's mobile reading applications are experiencing a decline after rapid growth. According to the data from the China Internet Network Information Center, the number of mobile applications in China increased from 4,030,000 to 4,520,000 from 2017 to 2018 and has rapidly decreased year by year since 2019. By 2021, the number of mobile applications will drop to 252,000. The country advocates reading for all, and mobile phones occupy much time for college students. In the era of digital reading, how to not be eliminated in the fierce market competition and gain profits is an urgent issue for mobile application enterprises, and promote the industrialization of digital reading. The analysis of users' psychology is not only conducive for enterprises in designing products, obtaining commercial profits, and satisfying consumers but also conducive to the development

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of digital reading and further promoting the national reading movement.

The research on mobile reading has the following characteristics from research methods, research contents, and perspectives. First, from the perspective of research methods, it is mainly divided into quantitative and qualitative research. In recent years, the most representative articles in quantitative research in China, for example, Yu (2012) has based on the questionnaire method to verify the influence of intergenerational, life stage, and gender on the width of media use. Chatterjee et al. (2018) analyzed the distribution time, literature authors, institutional distribution, and research evolution path of paid reading. In qualitative research, Lai and Chang (2011) combed the phenomenon of the rise and evolution of online knowledge payment and analyzed the main content types, value orientation, content structure, and media services of knowledge payment. Liu et al. (2014) were based on Howard Shane's consumption behavior model and habit theory. Previous scholars investigated the cognition and judgment of college students' mobile reading digital payment market from consumers' perspectives. They proposed influencing user behavior from external factors, stimuli, psychological factors, etc. Second, from the perspective of research content, it mainly focuses on user research, marketing effect research, platform research, and content payment research. Zhang and Ma (2011) used the "mirror image" theory to analyze the psychological reasons for readers' payment from the perspective of cultural criticism. In the master's and doctoral dissertation database, a fuzzy search was conducted with the theme of "paid reading." From 2019 to 2020, there were 60 relevant kinds of literature. Foreign research mainly focuses on quantitative research, but foreign researchers are unfamiliar with the current situation of e-reading in China.

Previous research has provided an important theoretical role for the research on this topic (Guoming, 2020; Yanfeng, 2017; Zhang & Ma, 2011). The existing research also has the following limitations. First, the research has vital timeliness, but there are few continuous follow-up studies. Secondly, qualitative and quantitative analysis are available, but quantitative research and measurement methods are not scientific enough. Third, in the empirical study, no researcher has conducted an empirical study on college students in Chengdu. Based on the current national reading survey in China, this paper focuses on "mobile reading" and tries to explore the psychological needs of e-reading readers and optimize the effect of E-reading. Mobile reading is defined as a reading behavior in that people take the Internet as the technical basis and mobile phone or handheld readers as the material carrier (Zhang & Ma, 2011). Lai and Chang (2011) stated that mobile phones make reading ubiquitous with their accompanying features. Generally speaking, there were two methods: e-book reading and online reading. Therefore, this study mainly aims at college students as a young user group. By conducting a survey, this study used quantitative research methods to analyze the behavior intention that affects this target group to pay for mobile reading applications.

2. Literature Review

2.1 Perceived Value

According to Zeithaml (1988), the perceived value is the user's subjective feeling and judgment of product service and performance. Service value is the user's judgment on the price-performance ratio of the purchased goods or services, which mainly refers to the direct ratio between the performance characteristics and the price (Zeithaml & Bitner, 1996). For a long time, perceived value has been emphasized by marketing research (Ulaga & Eggert, 2006). Perceived value is the relationship between product quality, service level, and price (Fornell et al., 1996). Although many researchers believe that perceived value can predict purchase behavior (Chen & Dubinsky, 2003), most studies are based on consumer behavior in offline markets. Therefore, it is necessary to study the relationship between perceived value and satisfaction. The relationship between perceived value and satisfaction has been studied in the telecom market, retail industry, and online shopping (Gerpott et al., 2001; Hsin Chang & Wang, 2011). Consequently, this paper proposed a hypothesis:

H1: Perceived value has a significant impact on satisfaction.

2.2 Service Quality

Service quality was one of the critical factors for merchants to gain the favor of users. Many researchers have conceptualized service quality. There were some representative views. The view from the American quality association was that quality was a commodity that meets the needs of its users (Haksever et al., 2000). Juran (1988) focused on the definition of products meeting customer needs, while Zeithaml (1988) emphasized the service characteristics of commodities. Service quality includes credibility, commitment, integrity, and convenience. Zeithaml (1988) advocated that service quality was the overall cognition of users on the superiority of products compared with products of the same type. Service quality originates from the attitude of consumers before and after purchasing products or services, which is a subjective experience (Collier & Bienstock, 2006). Service quality is the focus of traditional marketing research. Service quality is also a factor that cannot be ignored in online transactions. This paper defines service quality as the service content and quality provided by online paid reading merchants for

college students. In the research on mobile payment reading, the research on the relationship between service quality and satisfaction is not detailed enough, so this paper proposes a hypothesis:

H2: Service quality has a significant impact on satisfaction.

2.3 Satisfaction

Customer satisfaction is the focus of marketing research (Oliver, 1997). Customer satisfaction refers to the consistency of users' expectations before using products and their attitudes after using products (Hunt, 1977). Satisfaction is users' subjective experience in purchasing products (Gallarza et al., 2011). The user repurchase rate is an essential indicator for judging satisfaction (Athanassopoulos et al., 2001; Oliver, 1980). Satisfaction in this article refers to the attitude of female college students who have purchased mobile reading services towards products, including whether to buy again, recommend to others, etc. In marketing research, it is customary to study the relationship between satisfaction, trust and behavioral intention (Santos, 2003). Based on the previous research, the paper proposes the following assumptions:

H3: Satisfaction has a significant impact on trust.

H9: Satisfaction has a significant impact on behavioral intention.

2.4 Trust

As for the concept of trust, marketing researchers have a process of deepening. Moorman et al. (1993) mainly made subjective judgments about products or services. Morgan and Hunt (1994) defined trust as a balanced relationship between partners. Oliver (1997) understood the concept of trust from the perspective of consumers and commodity suppliers. Morgan and Hunt (1994) added a commitment element to their understanding of trust, which means that trust refers to consumers' faith in business integrity and commitment. The concept of trust in this paper refers to the female college students in several universities in Chengdu, Sichuan's attitude towards purchasing mobile reading services. Some researchers believe that satisfaction is the basis of trust generation. Some researchers hold this view (Costabile et al., 2002; Leisen & Hyman, 2004), the realization of the user's expectation of the business was named trust (Sirdeshmukh, 2002) and trust was considered to be the result of the user's satisfying experience and can predict behavioral intention (Loureiro & González, 2008). Therefore, a hypothesis is developed:

H4: Trust has a significant impact on behavioral intention.

2.5 Social Influence

Nysveen et al. (2005) have conceptualized social influence as when the subject makes a choice, the person who has a close relationship with it has an important influence on the choice. Consumers' opinions were easily influenced by family or friends, which was proposed in the UTAUT model (Venkatesh et al., 2003). Venkatesh et al. (2003) studied social impact from the overview of the online social network and considered that, to some extent, the individual behavioral intention was influenced by the group. In this article, social impact means that college students will purchase online reading resources with the recommendation of their relatives or friends. In the research on mobile Internet business, whether Internet Banking (Tarhini et al., 2016) or mobile government office (Malaquias & Hwang, 2016), social influence on behavior intention was positive. This view has also been confirmed by traditional offline industries (Nikou & Bouwman, 2014). Based on the above research, the paper proposes the following hypothesis:

H5: Social influence has a signification impact on behavioral intention.

2.6 Perceived Usefulness

Davis (1989) believed that perceived usefulness refers to an individual's subjective perception of increased work efficiency when using a particular thing. Many researchers believed that the improvement of usability has an essential impact on customer behavior intentions (Venkatesh & Davis, 2000; Venkatesh et al., 2003). In the commodity exchange on the network platform, when the customer judges the usefulness of the commodity, they could make a purchase decision. Perceived usefulness was widely used in technology-related research. Davis (1989) studied the attitudes and intentions of Indian consumers toward Internet banking adoption. Kaur and Arora (2020) have studied the use of mobile libraries by college students based on data from Hong Kong, China, and Japan. They also took ease of use as a variable.

In the context of TAM theory, perceived usefulness was defined in this thesis as the perception of college students on the advantages of mobile phone reading, such as being free from geographical restrictions, being portable at anytime and anywhere, and using the fragmented time to learn. In previous studies, many researchers have seen the positive impact of perceived usefulness on behavioral intention (Davis, 1989; Venkatesh et al., 2008). Hence, the following assumption is proposed:

H6: Perceived usefulness has a significant impact on behavioral intention.

2.7 Perceive Ease of Use

Davis (1989) believed that perceived ease of use refers to the use of technology as effortless, convenient, and easy to operate. In education, students expect that it should not take too much time to operate a learning system, which is conveyed as perceived as ease of use. Venkatesh and Davis (2000) further emphasized the continuous efforts to make products easy to use. Based on the definition of PEOU (Davis, 1989), college students believed that online reading was easy to operate. Davis (1989) theorized that PEOU was a key factor affecting PU. Ease of use was often used to measure whether a technical system was easy to operate. At the same time, the researcher pointed out that ease of use will directly affect consumers' intention to purchase and reuse products (Venkatesh & Davis, 2000). Previous studies suggested that attitude and intention were affected by the personal attitude system (Davis, 1989; Venkatesh & Davis, 2000). Many authors supported the above viewpoints when studying the acceptance of online banking acceptance (Çelik, 2008; Giovanis et al., 2012; Lee, 2009). Based on previous studies, it is proposed that:

H7: Perceived ease of use has a significant impact on Perceived usefulness.

H8: Perceived ease of use has a significant impact on behavioral intention.

2.8 Behavioral intention

According to Ladhari (2008), behavior intention constitutes the tendency of action. Behavioral intention refers to the probability that people make some non-objective judgment (Fishbein & Ajzen, 1975). The behavioral intention was defined as the possibility of taking specific actions (Oliver, 1997). In this paper, the definition of behavioral intention refers to the motivation of consumers to purchase mobile reading applications. Some researchers have studied the behavioral intention of users to use mobile phones for reading and learning. Undoubtedly, convenience is an essential advantage of e-books (Zhang & Ma, 2011). Compared with paper books, some people believe that mobile reading could only be used as a supplement to traditional reading methods. In contrast, others believed that perceived value, service quality, satisfaction, trust, social influence, perceived ease of use and perceived usefulness significantly impact users' behavioral intention (Benjangjaru & Vongurai, 2018).

3. Research Methods and Materials

3.1 Research Framework

The conceptual framework is developed from studying previous research frameworks. It is adapted from five theoretical models. Firstly, Lai and Chang (2011), the paper compares and analyzes the effects of mobile phones and computers when using the system using questionnaires and structural equation theory. Secondly, Hsin Chang and Wang (2011) used a structural equation model and linear regression model to verify the relationship between factors affecting consumers' online shopping behavior through two experiments, such as the relationship between service quality, perceived value, and user loyalty. Third, Carlson and O'Cass (2010), Data from an online survey of 518 consumers were collected with the partial least squares (PLS) structural equation modeling technique used to test the model empirically. Fourth, Jimenez et al. (2016) collected 1,053 questionnaires and used the structural equation analysis methodology to analyze the relationship between honesty, satisfaction, loyalty, and purchase motivation in mobile phone transactions. Fifth, Phonthanukitithaworn et al. (2016) used innovation theory and the technology acceptance model to analyze the influencing factors of Thai people using mobile phone transactions. The conceptual framework of this study points key variables which are behavioral intention, perceived ease of use, perceived usefulness, perceived value, service quality, trust, satisfaction, and social influence as shown in Figure 1:

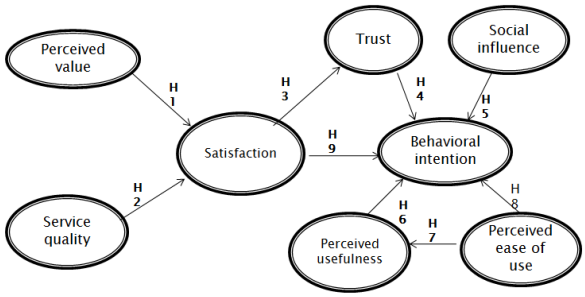

Figure 1: Conceptual Framework

H1: Perceived value has a significant impact on satisfaction.
H2: Service quality has a significant impact on satisfaction.
H3: Satisfaction has a significant impact on trust.
H4: Trust has a significant impact on behavioral intention.
H5: Social influence has a significant impact on behavioral intention.
H6: Perceived usefulness has a significant impact on behavioral intention.

H7: Perceived ease of use has a significant impact on perceived usefulness.
H8: Perceived ease of use has a significant impact on behavioral intention.
H9: Satisfaction has a significant impact on behavioral intention.

3.2 Research Methodology

This research was carried out using the online and paper questionnaire to distribute to the target group, using print survey, WeChat and Questionnaire Star. Female students from four universities are Xihua University, Sichuan Institute of Media and Communications, Sichuan Film and Television Academy, and Chengdu Institute of Technology. A questionnaire is designed in three parts; screening questions, measurement variables, and demographic factors of the respondents. The primary data collection tool was a questionnaire. Statistical software SPSS was used for data analysis, using confirmatory factor analysis (CFA) and structural equation model (SEM). The validity and reliability test were accounted to verify the data.

3.3 Population and Sample Size

The target population of this study is female students with experience of paying for and using mobile reading applications at the four university in Chengdu, China, which are Xihua University, Sichuan Institute of Media and Communications, Sichuan Film and Television Academy, and Chengdu Institute of Technology. Segmenting new media users from a gender perspective was a common practice in mobile apps. The approach has been adopted by apps such as Himalaya, Get, WeChat Reading, etc. (Carlson & O'Cass, 2010; Liu & Huang, 2016; Xianglian, 2021). Therefore, gender is an important feature that distinguishes population information. When analyzing the tendency of new media users to pay, this paper chose female perspectives.

Kotler (2000) pointed out that the sample size represents the number of persons who should be included in the experimental study before the investigation commences. This study used structural equation modeling (SEM) as a statistical method to analyze the research data. The suggested sample size was at least 444. The researcher proposed 500 samples as appropriate for the data analysis. However, after the survey was distribute to over 6,000 students, there were 840 responses received for the data analysis.

3.4 Sampling Technique

Etikan and Bala (2017) defined sampling as the process of taking some elements from the combination of all the elements that make up a population in a certain way. Multistage Sampling will be used in this study. There were three steps in the sampling procedure, judgmental, stratified random, and convenience Sampling. Judgment sampling is to select female students from four universities which are Xihua University, Sichuan Institute of Media and Communications, Sichuan Film and Television Academy, and Chengdu Institute of Technology. Stratified random sampling divides all units in the population into subgroups which demonstrates in Table 1. In addition, a convenience sample is to distribute online and offline questionnaires to the target students in this study.

Table 1: Sample Units and Sample Size

Grade	Total number of Female students	Total number of questionnaires
Xihua University	22,767	207
Chengdu Institute of Technology	5,522	50
Sichuan Film and Television Academy	12,991	118
Sichuan University of Media and Communications	13,777	125
Total	**55,057**	**500**

4. Results and Discussion

4.1 Demographic Information

The demographic results of 804 respondents are education background, majors, occasion of mobile reading, contents, and frequency of mobile reading use as shown in Table 2.

Table 2: Demographic Profile (n=840)

Measure	Items	Frequency	Percentage
Education Background	Junior College	34	4.05%
	Undergraduate	758	90.24%
	Bachelor Degree	44	5.24%
	Master Degree	4	0.48%
Major	Literature	168	20%
	Engineering	242	28.81%
	Art	269	32. 02%
	Science	53	6.31%
	Economics And Management	78	9.29%
	Agriculture And Forestry Medicine	3	0.36%
	Others	27	3.21%
Occasion Of Mobile Reading	Walking	254	30.24%
	Before Going To Bed	668	79.52%
	Taking A Car/Subway/Bus	588	70%
	Doing Housework	72	8.57%
	Others	75	7.36%
Contents Of Reading	Classic Literary Works	443	52.74%
	Network Original Literary Works	529	62.98%

Measure	Items	Frequency	Percentage
	Journalism	343	40.83%
	Storytelling	321	38.21%
	History	248	29.52%
	Job Competition	113	13.45%
	English Study	208	24.76%
	Emotion	352	41.9%
	Travel	247	29.4%
	Others	100	11.9%
Frequently Used Mobile Reading Applications	Ximalaya FM	94	11.19%
	Zhi Hu	381	45.36%
	Wechat Reading	216	25.71%
	Others	149	17.74%

4.2 Confirmatory Factor Analysis (CFA)

CFA was used before analyzing the measurement model with the structural equation model (SEM). The result of CFA indicated that all items in each variable are significant and have factor loading to prove discriminant validity as shown in Table 3. Hair et al. (2006) recommended guidelines are also employed in defining the significance of factor loading of each item and acceptable values in defining the goodness of fit. Factor loadings are higher than 0.50, with a p-value lower than 0.05. Furthermore, aligning with the recommendation from Fornell (1992), the Composite Reliability (CR) is greater than the cut-off point of 0.7, and the Average Variance Extracted (AVE) is higher than the cut-off point of 0.4.

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

Variables	Source of Questionnaire	No. of Items	Cronbach's Alpha	Factors Loading	CR	AVE
PV	Sandra et al. (2014)	3	0.805	0.717-0.750	0.806	0.581
PU	Thakur and Srivastava (2014)	5	0.834	0.655-0.813	0.860	0.553
SI	Thakur and Srivastava (2014)	3	0.871	0.733-0.849	0.819	0.602
PEOU	Thakur and Srivastava (2014)	4	0.785	0.643-0.853	0.830	0.554
SAT	Cronin and Taylor (1992)	3	0.779	0.663-0.818	0.787	0.553
TR	Gefen et al. (2003)	3	0.802	0.703-0.838	0.810	0.589
BI	Khalilzadeh et al. (2017)	4	0.847	0.735-0.830	0.849	0.585
SQ	Yuce et al. (2019)	3	0.790	0.678-0.783	0.786	0.551

Note: CR = Composite Reliability, AVE = Average Variance Extracted, *=p-value<0.05

All estimates are significant as shown in Table 4. The fit results are more significant than acceptable values. Therefore, convergent validity and discriminant validity are ensured. Moreover, the model measurement results consoled discriminant validity and validation to measure the validity of subsequent structural model estimation.

Table 4: Goodness of Fit for Measurement Model

Index	Acceptable Values	Statistical Values
CMIN/DF	< 3.00 (Hair et al., 2006)	2.682
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.937
AGFI	≥ 0.80 (Sica & Ghisi, 2007)	0.920
NFI	≥ 0.90 (Hair et al., 2006)	0.917
CFI	≥ 0.90 (Hair et al., 2006)	0.946
TLI	≥ 0.90 (Bollen & Noble, 2011)	0.936
RMSEA	< 0.08 (Pedroso et al., 2016)	0.045
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 = Normed fit index, CFI = Comparative fit index, TLI = Tucker-Lewis index, and RMSEA = Root mean square error of approximation.

According to Fornell (1992), testing for discriminant validity was evaluated by computing the square root of each AVE. Based on this study in Table 5, the value of discriminant validity is more significant than all inter-construct/factor correlations. Therefore, the discriminant validity is supportive. The convergent and discriminant validity were proved; Therefore, the evidence is sufficient for establishing construct validity.

Table 5: Discriminant Validity

	PV	SAT	PEOU	SI	TR	BI	PU	SQ
PV	**0.762**							
SAT	0.351	**0.743**						
PEOU	-0.043	0.072	**0.744**					
SI	0.090	0.091	0.073	**0.776**				
TR	0.102	0.378	0.014	0.031	**0.767**			
BI	0.177	0.369	0.195	0.204	0.445	**0.765**		
PU	0.011	0.015	0.29	0.04	0.058	0.411	**0.745**	
SQ	0.089	0.298	0.165	0.074	0.114	0.125	0.033	**0.742**

Note: The diagonally listed value is the AVE square roots of the variables

4.3 Structural Equation Model (SEM)

According to Hair et al. (2006), Structural Equation Modeling (SEM) validates the causal relationship among variables in a proposed model and encompasses measurement inaccuracy in the structure coefficient. The goodness of fit indices for the Structural Equation Model (SEM) is measured as demonstrated in Table 6. The calculation in SEMs and adjusting the model by using SPSS AMOS version 26, the results of fit index were presented good fit which are CMIN/DF = 2.748, GFI = 0.929, AGFI = 0.913, NFI = 0.915, CFI = 0.944, TLI = 0.937 and RMSEA = 0.047, according to the acceptable values are mentioned in.

Table 6: Goodness of Fit for Structural Model

Index	Acceptable Criterion	Statistical Values
CMIN/DF	< 3.00 (Hair et al., 2006)	788.814 or 2.748
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.929
AGFI	≥ 0.80 (Sica & Ghisi, 2007)	0.913
NFI	≥ 0.90 (Hair et al., 2006)	0.915
CFI	≥ 0.90 (Hair et al., 2006)	0.944
TLI	≥ 0.90 (Bollen & Noble, 2011)	0.937
RMSEA	< 0.08 (Pedroso et al., 2016)	0.047
Model Summary		**In harmony with empirical data**

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 = Normed fit index, CFI = Comparative fit index, TLI = Tucker-Lewis index, and RMSEA = Root mean square error of approximation.

4.4 Research Hypothesis Testing Result

Regression coefficient or standardized path coefficient to verify whether the hypothesis is approved. Table 7 shows that eight out of nine proposed hypotheses were supported.

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-Value	Result
H1: PV→ SA	0.342	9.601***	Supported
H2: SQ → SA	0.247	8.213***	Supported
H3: SA→ TR	0.545	9.566***	Supported
H4: TR → BI	0.374	9.670***	Supported
H5: SI→ BI	0.123	5.436***	Supported
H6: PU → BI	0.468	11.177***	Supported
H7: PEOU → PU	0.396	8.364***	Supported
H8: PEOU → BI	0.058	0.165	Not Supported
H9: SA→ BI	0.268	5.728***	Supported

Note: * p<0.05
Source: Created by the author

In Table 7, satisfaction had the strongest impact on trust with β at 0.545 (t-value at 9.566***). Perceived usefulness had the strongest significance on behavioral intention with β at 0.468 (t-value at 11.177***). Next, perceived ease of use had a significant impact on perceived usefulness, with β at 0.396 (t-value at 8.364***). Then, trust significantly impacted the behavioral intention with β at 0.374 (t-value at 9.670***). Followed by perceived value, it had a significant impact on the satisfaction with β at 0.342 (t-value at 9.601***). Moreover, satisfaction impacted behavioral intention with β of 0.268 (t-value at 5.728***). Furthermore, the service quality significantly impacted the satisfaction with 0.247 (t-value at 8.213***). Moreover, social influence impacted behavioral intention with 0.123 (t-value at 5.436***). On the other hand, perceived ease of use had the no impact on the behavioral intention with 0.058 (t-value at 0.165). Therefore, this study confirms H1, H2, H3, H4, H5, H6, H7 and H9, whereas H8 was not supported.

5. Conclusions and Recommendation

5.1 Conclusion and Discussion

The research has the findings as follows. First, the study found that perceived value and service quality significantly impacted behavioral intention through satisfaction. This point was recognized by Hsin Chang and Wang (2011) when researching the psychology of consumers' online shopping behavior. The relationship between perceived value and satisfaction has been confirmed by many scholars (Gerpott et al., 2001; Hsin Chang & Wang, 2011). Carlson and O'Cass (2010) also agreed with the relationships among e-service quality, consumer satisfaction, and behavioral intentions in content-driven websites. Furthermore, satisfaction is implied as the attitude of female college students who have purchased mobile reading apps and the tendency to re-subscribe. Second, satisfaction and trust also significantly impact behavioral intention. Santos (2003) supported the relationship between satisfaction, trust and behavioral intention. Social influence also has a significant impact on behavioral intention, which were also confirmed in the study Jimenez et al. (2016). In the research on mobile Internet business, social influence significantly impacted behavioral intention (Malaquias & Hwang, 2016; Nikou & Bouwman, 2014; Tarhini et al., 2016). Third, perceived ease of use was not found to be impacted behavioral intention, Hence, H8 is not supported. Previous studies suggested that perceived ese of use and intention were significantly related (Davis, 1989; Venkatesh & Davis, 2000). Many authors supported the above viewpoints when studying the technology acceptance (Çelik, 2008; Giovanis et al., 2012; Lee, 2009). This finding contradicted with previous studies but aligned with Singh et al. (2020), where they claimed that there was no significant correlation between them.

5.2 Recommendation

From the demographic perspective, 45.36% of female college students were surveyed to have behavioral intention to use Zhi Hu mobile reading app, which reflects the strong demand of college students for the use of this app. Software developers can fully tap this feature of college students and develop software that meets the needs of college students. First, the researchers found among female students in four universities in Chengdu, China, that the intention to pay for mobile reading applications was affected by seven key factors, which are perceived value, service quality, satisfaction, social influence, trust, and perceived usefulness. For software developers, they should pay attention to consumer needs, pay attention to reading the content of applications, and attract college students with high-quality content. The developers should pay attention to the security of payment, the applicability, and knowledge that meets the needs of college students. Positive word-of-mouth communication and full play to interpersonal communication effect can cascade the usefulness of the mobile reading apps for student's learning efficiency. Second, for educators, it is better to follow the global digital reading trend, to analyze the exploitation of digital reading, and to grasp the benefits of users' technology adoption. Currently, college students pay more attention on digital reading and obtain knowledge with self-pace style. The digital reading can be improved for more effectiveness and cost-saving way of the current educational system.

5.3 Limitation and Further Study

The limitations are suggested for the future study. First, the prices of the app purchase have not yet been examined to have an impact on student's decision to purchase and use the mobile reading apps. Second, there was limitations on several universities in Chengdu was explored, which should be extended to other areas or regions in China. Third, qualitative research is suggested to be conducted such as interviews and focus group. Last, more variables should be explored such as perceived price, electronic word-of-mount, self-efficacy and facilitating conditions.

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