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The Assessment on Consumer Satisfaction and Use Intention of B2C E-Commerce Platform in Chongqing, China

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Abstract

Purpose: This paper assessed the factors affecting the satisfaction and use intention of Chongqing residents toward e-commerce platforms, including service quality, information quality, system quality, perception of ease of use, perception of usefulness, intention, and satisfaction. **Research design, data, and methodology:** A questionnaire survey was conducted on 500 resident residents in Chongqing. The sampling technique involved judgmental, stratified random and convenience sampling. The validity of the research instrument was assessed by the index of item-objective congruence (IOC), and a pilot test by Cronbach alpha coefficient reliability test. The researcher used confirmation factor analysis and the structural equation model as statistical analysis tools. **Results:** The system quality was the strongest predictive factor for satisfaction and the intention of using the e-commerce platform. The perceived ease of use and service quality also strongly impacted satisfaction and use intention. The perceived usefulness and information quality only had a strong impact on satisfaction. This case study did not show a significant impact of perceived usefulness and information quality on use intention. **Conclusions:** Providing high system quality to users made the system feel valuable and useful to them. Therefore, the recommendation is to ensure and promote the advantages or benefits of B2C e-commerce business platforms.

Keywords: Perceived Ease of Use, Perceived Usefulness, Intention to Use, Satisfaction, E-Commerce

JEL Classification Code: E44, F31, F37, G15

1. Introduction

Park et al. (2004) emphasized the impact of the quality and satisfaction of a website quality on the transaction intention and satisfaction of online shopping. Urvashi et al. (2016) analyzed the impact of the perception of ease of use and perception of usefulness on Indian customers' satisfaction. Yan and Du (2016) analyzed the impact of B2C corporate image and website security on customer satisfaction.

The above research provided some basis for analyzing customer satisfaction and the use intention of the B2C e-commerce platform. However, the influencing factors of customer satisfaction and intention of use are diverse and should be comprehensively analyzed. As a municipality and a new first-tier city in China, Chongqing plays an extremely important role in China's development. Therefore, it is very important to systematically study factors that affect the satisfaction and intention of the Chongqing B2C e-commerce platform.

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For the society, the measurement model of the construction of the B2C e-commerce platform satisfaction and the intention of using intention was conducive to evaluating the quality of the country's macroeconomic operation and providing a basis for the government to formulate economic policies. Chengdu-Chongqing Economic Circle is a major strategy of China at present. Chongqing was the central city of the Chengdu-Chongqing Economic Circle. Chongqing's B2C transaction volume accounted for relatively high in the country. Studying Chongqing's B2C situation was significant in grasping China's economic development.

For enterprises, the evaluation of customer satisfaction and the intention was conducive to improving products and services and tapping customers' potential needs. Through the evaluation of customer satisfaction and intention, the discovery was not enough to improve the dissatisfaction of customers, which could bring customers the source and maintain the good image of the enterprise. Chongqing was the central and new tier city of the Chongqing Economic Circle, playing an important role in the development of B2C. Studying the situation in this area would help enterprises formulate marketing strategies and improve products and services. This paper assessed the factors affecting the satisfaction and use intention of Chongqing residents toward e-commerce platforms, including service quality, information quality, system quality, perception of ease of use, perception of usefulness, intention, and satisfaction.

2. Literature Review

2.1 Service Quality

Abdurrahman et al. (2020) believed that the quality of service should be measured from the following aspects: empathy, ability, confidence, follow-up support, response, and reliability. Masrek (2007) found a strong correlation between service quality, user satisfaction, and willingness to use. This discovery was supported by (Lwoga, 2013; Shaltoni et al., 2015). Service quality's basic feature was meeting customers' expectations (Rasheed et al., 2015). According to Rasheed et al. (2015), the quality of service was a combination of comfortable and diverse packaging and the customer's friendship with the service provider. According to Rust and Zahorik (1993), the quality of service includes the quality-of-service environment, service products, and service delivery results. Brady and Cronin (2001) believed that the quality of service included the quality of the result, the quality of the physical environment, and the quality of interaction. Thereby, following hypotheses are proposed:

H1: Service quality has a significant impact on use intention.

H2: Service quality has a significant impact on satisfaction.

2.2 System Quality

Gorla et al. (2010) believed that system quality was a prerequisite for information quality. DeLone and McLean (1992) believed that the system's quality was closely related to the technical standards of the system. Subsequently, DeLone and McLean (2003) pointed out that system quality was measured by function, ease of use, reliability, data flexibility, integration, and quality. Abdurrahman et al. (2020) believed that the system quality and intention had much to do. Chen (2015) believed that the system quality and satisfaction were positive. Lwoga (2013) believed that the system's quality impacted satisfaction and intention of use. Lederer et al. (2000) believed that the system's quality was a powerful prediction factor that perceived usefulness. Hence, this research suggests hypotheses:

H3: System quality has a significant impact on use intention.

H4: System quality has a significant impact on satisfaction.

H7: System quality has a significant impact on perceived usefulness.

2.3 Information Quality

DeLone and McLean (2003) identified five success criteria for information quality: completeness, comprehensibility, personalization, relevance, and security. The quality of information is usually measured by completeness, accuracy, relevance, coherence, and timeliness (Alzahrani et al., 2017). Lin and Lu (2000) argued that users were more likely to use a system when they perceived its value than when they perceived it as vague, incorrect, incomplete, and outdated. Huh et al. (1990) argued that information quality should be measured by currency, accuracy, completeness, and comprehensiveness. The literature on information systems suggested that information quality impacted user satisfaction and willingness to use (DeLone & McLean, 2004; Park & Kim, 2006; Wixom & Todd, 2005). Information quality improves perceptions of the usefulness of a system (Seddon, 1997). DeLone and McLean (1992) argued that the quality of an information system influenced the degree of use and user satisfaction of the information system and, ultimately, the behavior of individuals and organizations. Subsequently, hypotheses are developed per below:

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

H6: Information quality has a significant impact on satisfaction.

H8: Information quality has a significant impact on perceived usefulness.

2.4 Satisfaction

Satisfaction was a widely used variable in different fields, such as information and communication technology (Zolotov et al., 2018). Doll and Torkzadeh (1988) proposed and created a user satisfaction instrument called End User Computer Satisfaction (EUCS). Satisfaction has been used to evaluate the success and effectiveness of IS, the success of decision support systems, the success of office automation, and the utility of IS in decision-making (Zviran et al., 2006). From a marketing perspective, satisfaction depended heavily on performance; however, product experience alone did not determine overall satisfaction (Anderson & Sullivan, 1993). Zolotov et al. (2018) found that the most commonly used theoretical models for measuring and understanding satisfaction are D&M and ECM. Oliver (1980) found that there was a strong positive correlation. Alzahrani et al. (2017) concluded that user satisfaction was one of the key factors for the success of information systems. Satisfaction was usually influenced by the quality of information evaluated by customers (Bharati & Berg, 2003; Kim et al., 2009; Misick & Johnson, 1999). Rouibah et al. (2020) argued that information, system, and service quality influenced users' usage. Therefore, use intention is significantly impacted by how satisfied users are, as presented in a below hypothesis:

H9: Satisfaction has a significant impact on use intention.

2.5 Perceived Ease of Use

Ease of use played a key role in understanding individuals' responses to information technology (Agarwal & Karahanna, 2000; Chau & Hu, 2001; Hong et al., 2002). Agarwal and Prasad (1999) argued that ease of use significantly impacted intention to use. Perceived ease of use positively affected perceived usefulness because technologies that were easy to use might be more useful and advantageous (Schillewaert et al., 2005; Wu & Chen, 2017). Davis (1989) argued that when all else was equal, applications that were perceived as easier to use by end users were more likely to be accepted than other applications. "Perceived ease of use" and "perceived usefulness" might lead to behavioral intention to shop online (Davis & Cosenza, 1993; Davis, 1989). Chang et al. (2012) stated that ease of use positively activates the intention to use innovative technologies. Based on previous studies, this study provides hypotheses that:

H10: Perceived ease of use has a significant impact on use intention.

H11: Perceived ease of use has a significant impact on satisfaction.

2.6 Perceived Usefulness

Perceived usefulness of the technology can be referred to what the upsides users will receive from using the system (Zhong et al., 2022). Bhattacharjee (2001) argued that perceived usefulness affected citizen satisfaction at both the acceptance and post-acceptance stages. Many previous studies have shown that perceived usefulness plays an important role in intention to use (Agarwal & Prasad, 1999; Davis, 1989; Nicole et al., 2010), and Mathew (2014) further stated that perceived usefulness was the most important factor in deciding whether to use it or not. Lee and Lehto (2013) argued that perceived usefulness was an important factor influencing the use of information systems. Saeed and Abdinnour-Helm (2008) and Vanduhe et al. (2020) argued that perceived usefulness was not only a pre-adoption belief that signified the intention to use the technology but also a post-adoption belief that influenced continued use. As a result, below hypotheses are stated:

H12: Perceived Usefulness has a significant impact on use intention.

H13: Perceived usefulness has a significant impact on satisfaction.

2.7 Use Intention

DeLone and McLean (2003) applied intention to use in an updated D&M model to test users' behavioral intentions. Lu and Chiou (2010) and Lu et al. (2010) analyzed the potential factors of intention to use. The Theory of Rational Behavior (TRA) argues that behavior could be predicted by direct intentions toward so-called behaviors (Ajzen & Fishbein, 1980). Furthermore, previous studies have shown that customers' perceptions of service quality and satisfaction positively influence purchase intention (Rust & Zahorik, 1993). Kesharwani et al. (2017) confirmed that perceived ease of use indirectly influences the intention to use behavior through perceived usefulness. Van der Heijden (2004) argued that perceived usefulness was the only factor that could predict or explain behavioral intention.

3. Research Methods and Materials

3.1 Research Framework

The concept framework showed all variables used in this study. The researcher used three main theories, models of Tam, Rouibah, and others, updated D & M IS successful models, and four main research frameworks to support and develop the conceptual framework of this study. These three main theories provide research on the study of intention to use, satisfaction, perceived ease of use, perceived usefulness,

system quality, information quality, and service quality. The first research framework was carried out by (Nripendra et al., 2013). It researched user intent and satisfaction regarding information quality, system quality, and perceived usefulness. The second research framework was carried out by (Abdurrahaman et al., 2020). It researched system quality, information quality, service quality, intention, and satisfaction. The previous third research framework was carried out (Abu-Shanab & Hammouri, 2018). It studied information quality, system quality, computer self-efficacy, usefulness perception, and satisfaction. The conceptual framework of this study is shown in Figure 1.

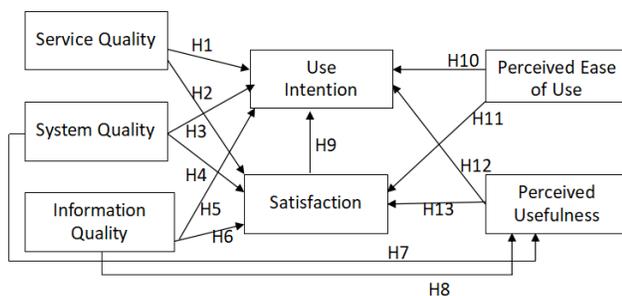


Figure 1: Conceptual Framework

- H1:** Service quality has a significant impact on use intention.
H2: Service quality has a significant impact on satisfaction.
H3: System quality has a significant impact on use intention.
H4: System quality has a significant impact on satisfaction.
H5: Information quality has a significant impact on use intention.
H6: Information quality has a significant impact on satisfaction.
H7: System quality has a significant impact on perceived usefulness.
H8: Information quality has a significant impact on perceived usefulness.
H9: Satisfaction has a significant impact on use intention.
H10: Perceived ease of use has a significant impact on use intention.
H11: Perceived ease of use has a significant impact on satisfaction.
H12: Perceived usefulness has a significant impact on use intention.
H13: Perceived usefulness has a significant impact on satisfaction.

3.2 Research Methodology

The researchers collected standardized measurement results, and the quantitative method was a good choice, which could be achieved by investigating the respondents by the same problem. According to the purpose of the research, this

study adopted quantitative research. Quantitative research is a method and process, which can skillfully express problems and phenomena, and then analyze, test, and interpret the results of research (Rossman & Wilson, 1984). It was non-participation and required control requirements and design assistance (Malina et al., 2007). The research methods used in this study include three steps. First, a questionnaire was designed to measure the intention and satisfaction of the user intention and satisfaction of the B2C e-commerce platform. In order to evaluate the effectiveness and reliability of the questionnaire, we adopted an objective consistency item (IOC) to evaluate the questionnaire. Secondly, the collected data was manually input and reviewed, and exported in Excel format for 39 users. The validity and reliability of the sample were tested using JAMOVI 1.6.23 statistical software. According to the test results, all measurement values were greater than 0.7 of Cronbach's Alpha reliability test, indicating that the questionnaire was scientific and could be used for large-scale surveys. Finally, the hypothesis was tested by scanning electronic microscopy (SEM), and a relationship analysis of the model structure (CFA) was performed. Existing research showed that scanning an electronic microscope was suitable for testing the underlying structure and revealing its relationship (Bollen, 1989). Use SPSS 23.0 and AMOS 24.0 statistical software for SEM analysis (Sun et al., 2017).

3.3 Population and Sample Size

The target group of this study was people who had used the B2C business platform in Chongqing. Chongqing was the central city of the Chengdu-Chongqing Economic Circle, which was of great significance to the development of Chengdu-Chongqing Economic Circle and China. According to statistics from the Chongqing Municipal Commerce Commission, in 2020, Chongqing achieved a total online retail value of 135.05 billion yuan, an increase of 13.05% year-on-year, which was 1.49 percentage points higher than the national level. The online retail sales of physical goods increased by 25.8% year-on-year, which was 11 percentage points higher than the national average. The number of e-commerce couriers reached 590 million, a year-on-year increase of 28.3%. So, it was important to study it.

3.4 Sampling Technique

This study mainly adopted the probability sampling method of multiple sampling. According to Ackoff (1953), multiple sampling was a method that processed large samples into limited samples by using incremental processes. First, a certain number of groups were randomly selected from the first-level group to complete the first phase of sampling. Then, a certain number of secondary groups were selected from

each group selected in the first stage to complete the second stage sampling. The above process repeatedly proceeded until the end and could directly investigate personal samples. Multiple sampling was a combination of cluster sampling and type sampling. On the one hand, the sampling of multiple stages maintained the advantages of cluster sampling, such as concentration, convenient investigation, saving cost, and comparison and preparation of sampling framework. At the same time, it avoids the waste caused by too many surveys and gives full play to the advantages of sampling surveys (Wang, 2019).

In this study, the respondents were from Chongqing. In order to distribute 500 samples in three districts. The researcher collected the total number of customers using e-commerce platforms in these areas in February 2022. As shown in Table 1, 500 samples in Chongqing were divided into 320, 140, and 40 samples, distributed in Jiulongpo District, Yuzhong District, and Chengkou County.

Table 1: Sample Units and Sample Size

Area	County (City, District)	Population Size	Proportional Sample Size
Chongqing	Jiulongpo District	839740	320
	Yuzhong District	362450	140
	Chengkou County	106132	40
Total		1308322	500

Source: constructed by author

4. Results and Discussion

4.1 Demographic Information

The population statistics on gender, age, and education were collected from the interviewees. The questionnaires selected by Chongqing were distributed to 500 people with experience in B2C e-commerce. Among the survey objects, 288 women, 57.6%, and 212 men, accounting for 42.4%. One hundred seventy-four people under 30, 130 years old, 31-40

years old, 114 years old, 41-50 years old, 61 years old, 51-60 years old, 21 people over 60 years old, accounting for 34.8%, 26.0%, 22.8%, 12.2%, and 4.2 of the totals %. Forty-two people and below, 112 junior high schools, 150 high schools, 104 undergraduate, 93 undergraduate or above, accounting for 8.2%, 22.4%, 30.0%, 20.8%, and 18.6% (see Table 2).

Table 2: Demographic Profile

Demographic and General Data (N=500)		Frequency	Percentage
Gender	Male	212	42.4%
	Female	288	57.6%
Age	30 years old or below	174	34.8%
	31-40 years old	130	26.0%
	41-50 years old	114	22.8%
	51-60 years old	61	12.2%
	61 years old or Over	21	4.2%
Education Level	Primary school or below	42	8.2%
	Junior middle school	112	22.4%
	Senior middle school	150	30.0%
	Bachelor	104	20.8%
	Bachelor above	93	18.6%

4.2 Confirmatory Factor Analysis (CFA)

Xun (2016) believed that confirmation factor analysis was a verification of the degree of fitting between existing theoretical models and data and a way to examine the effectiveness of the questionnaire structure. Fernando and Jayawarna et al. (2013) believed that confirmation factor analysis (CFA) was a factor analysis, emphasizing the reliability of theoretical analysis results. In Table 3, the acceptable factor loading threshold was 0.5 or higher (Hair et al., 2003). In addition, all measurement values were greater than 0.7 of Cronbach's Alpha reliability test. According to Fornell and Larcker (1981), the CR and AVE values were 0.7 or above and 0.4 or more, respectively, and were considered acceptable. This study's CR results and AVE values were higher than the threshold.

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
Service Quality (SEQ)	(Hassan & Abu-Shanab, 2020)	4	0.868	0.703-0.862	0.871	0.629
System Quality (SYQ)	(Nripendra et al., 2013)	3	0.764	0.687-0.762	0.766	0.522
Information Quality (IQ)	(Nripendra et al., 2013)	4	0.836	0.668-0.813	0.836	0.562
Perceived Usefulness (PU)	(Kesharwani et al., 2017)	3	0.795	0.623-0.864	0.805	0.584
Perceived Ease of Use (PEOU)	(Abu-Shanab & Hammouri, 2018)	3	0.840	0.750-0.843	0.841	0.639
Use Intention (UI)	(Hassan & Abu-Shanab, 2020)	4	0.878	0.778-0.833	0.879	0.644
Satisfaction (US)	(Lee & Chung, 2009)	5	0.856	0.654-0.793	0.860	0.552

Model fit was expressed as an acceptable value of the fit index (as shown in table 4). Statistical values of each indicator were compared with acceptable standards. CMIN/DF =2.552, GFI= 0.902, AGFI = 0.876, NFI =0.900,

CFI=0.936, TLI=0.925, RMSEA=0.056. There was no need to modify the measurement model in this study, as the original measurement model had shown model fit.

Table 4: Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	< 5.00 (Al-Mamary & Shamsuddin, 2015; Awang, 2012)	2.552
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.902
AGFI	≥ 0.80 (Sica & Ghisi, 2007)	0.876
NFI	≥ 0.80 (Wu & Wang, 2006)	0.900
CFI	≥ 0.80 (Bentler, 1990)	0.936
TLI	≥ 0.80 (Sharma et al., 2005)	0.925
RMSEA	< 0.08 (Pedroso et al., 2016)	0.056
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,

Fornell and Larcker (1981) proposed that when AVE's square root was greater than the coefficient of any relevant structure, the decision validity was confirmed, as shown in Table 5, the square roots of all structures on the diagonal line were 0.793, 0.722, 0.750, 0.764, 0.799, 0.802 and 0.743, which were greater than the coefficient between the meter table. Therefore, the effectiveness of the discrimination was guaranteed.

Table 5: Discriminant Validity

	SEQ	SYQ	IQ	PU	PEOU	ITU	US
SEQ	0.793						
SYQ	0.410	0.722					
IQ	0.362	0.387	0.750				
PU	0.441	0.426	0.378	0.764			
PEOU	0.390	0.346	0.315	0.396	0.799		
UI	0.501	0.512	0.425	0.414	0.448	0.802	
US	0.508	0.524	0.464	0.496	0.420	0.593	0.743

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

4.3 Structural Equation Model (SEM)

The structural equation model (SEM) was a mathematical method that used confirmation factor analysis to evaluate steps that affected a conceptual integration strategy. The theory was usually related to causality mechanisms that lead to various variable analyses (Newcomb & Bentler, 1988). Shelley (2006) and Boslaugh (2008) believed it evaluated the linear causality between variables and compensated for error specifications. This was equivalent to the return evaluation, but it might be more influential than the regression assessment.

The statistical values of each indicator are shown in Table 6. The statistical values of each indicator were compared with the acceptable fit values to evaluate the

model's fit. The statistical values of each indicator were CMIN/DF = 3.774, GFI = 0.852, AGFI = 0.819, NFI=0.848, CFI = 0.883, TLI = 0.867, RMSEA =0.075. This study did not need to modify the structural model because the results had shown the model fit.

Table 6: Goodness of Fit for Structural Model

Index	Acceptable	Statistical Values
CMIN/DF	< 5.00 (Al-Mamary & Shamsuddin, 2015; Awang, 2012)	3.774
GFI	≥ 0.85 (Sica & Ghisi, 2007)	0.852
AGFI	≥ 0.80 (Sica & Ghisi, 2007)	0.819
NFI	≥ 0.80 (Wu & Wang, 2006)	0.848
CFI	≥ 0.80 (Bentler, 1990)	0.883
TLI	≥ 0.80 (Sharma et al., 2005)	0.867
RMSEA	< 0.08 (Pedroso et al., 2016)	0.075
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

4.4 Research Hypothesis Testing Result

In this study, the regression coefficient or standardization path coefficient was used to measure the correlation between the independent variables proposed in the assumption, and 10 of the 13 hypotheses proposed were supported, as shown in Table 7.

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-Value	Result
H1: SEQ → UI	0.201	4.203***	Supported
H2: SEQ → US	0.275	5.993***	Supported
H3: SYQ → UI	0.257	4.112***	Supported
H4: SYQ → US	0.353	5.935***	Supported
H5: IQ → UI	0.154	2.972	Not Supported
H6: IQ → US	0.252	5.003***	Supported
H7: SYQ → PU	0.422	6.873***	Supported
H8: IQ → PU	0.286	5.401***	Supported
H9: US → UI	0.299	4.455***	Supported
H10: PEOU → UI	0.230	4.832***	Supported
H11: PEOU → US	0.185	4.008***	Supported
H12: PU → UI	-0.026	-0.469	Not Supported
H13: PU → US	0.190	3.266	Not Supported

Note: *** p<0.001
Source: Created by the author

The results in Table 7 are refined as follows:

H1 confirmed standardized coefficient value of 0.201, and the t-value was 4.203. The results of this study were consistent with the results of Masrek (2007). In **H2**, the

standardized coefficient value was 0.275, and the T value was 5.993. This result supported research (Lwoga, 2013). In **H3** was 0.257, and the T value was 4.112. This result supported the studies by Cheng (2014). In **H4**, standardization coefficient was 0.353, and the t-value was 5.935. This result supported research by (Abdurrahman et al., 2020) and Nripendra et al. (2013). When the standardization path coefficient was 0.154 and the t-value was 2.972, the impact of the quality of information on use was not found. Therefore, the H5 is not supported. This discovery contradicted the research (DeLone & McLean, 2003). **H6** resulted standardized coefficient value was 0.252, and the T value was 5.003. This result supported research (DeLone & McLean, 2004). **H7** showed standardized coefficient value was 0.422, and the t-value was 6.873. This result supported research (Seddon & Kiew, 1996). The standardization coefficient of **H8** was 0.286, and the T value was 5.401. This result supported research (Al-Ammari & Hamad, 2008). **H9** was 0.299, and the t-value was 4.455. This result supported previous research (Oliver, 1980). **H10** was 0.230, and the t-value was 4.832. This result supported previous studies (Agarwal & Prasad, 1999; Rajan & Baral, 2015; Venkatesh & Davis, 2000). **H11** was 0.185, and the t-value was 4.008. This result supported previous studies by (Mahmood et al., 2000). When the standardization path coefficient was -0.026, and the t-value was -0.469, no impact of perceived usefulness on the intention of use was found, so **H12** did not support H12. This discovery contradicted the previous research of (Agarwal & Prasad, 1999). They believed that perceived usefulness significantly impacts the intention of use. Perception of usefulness has a significant impact on satisfaction. Finally, the standardization path coefficient was 0.190, and the t-value was 3.266. No effect of perceived usefulness on satisfaction was found, so **H13** was not supported. This discovery contradicts the research of previous Seddon (1997), Rai et al. (2002), and Franz and Robey (1986). They claimed that perceived usefulness had a significant effect on satisfaction.

5. Conclusion, Recommendation & Limitation

5.1 Conclusion and Discussion

This study aimed to investigate the factors that affect the satisfaction and use intention of the Chongqing e-commerce platform. The interviewees of this empirical case study were people who had experienced e-commerce platforms from three different regions in Chongqing, China. Based on previous research, the researcher combined relevant theories and research with this topic to form a framework for the concept of this study. Three core theories, based on the

Technology acceptance model (TAM) devised by Davis (1989), the model by Rouibah et al. (2020), and the newer D&MIS success model developed by DeLone and McLean (2003), identify potential determinants of satisfaction and intention to use e-commerce platforms. TAM described the process of personal acceptance and adoption. The variables used in the concept model were perceived usefulness, perceived ease of use, and behavioral intention.

The study's findings could be summarized in two main findings. First, system quality was the strongest predictor of satisfaction and intent to use. System quality significantly influences users' satisfaction and use intention of e-commerce platforms. Therefore, establishing a perception of system quality and its advantages was the key to motivating satisfaction and use intention. Secondly, the antecedent variables contributing significantly to the perceived usefulness were sorted from information quality and service quality. Providing high system quality to users made the system feel valuable and useful to them.

5.2 Recommendation

The researchers identified the key factors of system quality, information quality, service quality, perceived ease of use, and perceived usefulness affecting satisfaction and use intention in using e-commerce platforms in three different cities in Chongqing. These key factors needed to be developed and promoted to achieve the satisfaction and use intention of the e-commerce platform. In this study, system quality was the strongest predictor of e-commerce platform satisfaction and use intention. Therefore, emphasis must be placed on promoting the system quality of e-commerce platforms. If users thought the system quality was high, they would be satisfied and inclined to use e-commerce platforms. Both government and business should ensure this attribute.

E-commerce platforms were vital to people's lives. It allows people to buy what they want whenever and wherever they want easily. E-commerce platforms were especially important during the COVID-19 pandemic. Shopping through e-commerce platforms could reduce the direct contact between people and reduce the risk of virus transmission. The results of this study showed that there were significant or insignificant factors affecting the satisfaction and use intention of e-commerce platforms. System quality was the strongest predictor of e-commerce platform satisfaction and use intention. Service quality and perceived ease of use also had a greater impact on satisfaction and use intention; information quality only had a greater impact on satisfaction. This case study did not prove that perceived usefulness and information quality significantly impacted use intention. System quality and information quality had a greater impact on perceived usefulness.

These could determine the important factors that countries and enterprises should emphasize when trying to enhance user satisfaction and use intention to use e-commerce platforms. In real life, the country and enterprise should focus on improving the system quality of the e-commerce platform to improve the user's satisfaction and willingness to use the e-commerce platform. At the same time, service quality and system usability should be strengthened to enhance further users' willingness to use and satisfaction. In addition, attention should be paid to the impact of system quality and information quality on perceived usefulness to promote users' satisfaction and willingness to use B2C e-commerce platforms. Therefore, the recommendations for these two main findings were to ensure and promote the advantages or benefits of B2C e-commerce business platforms.

5.3 Limitation and Further Study

The research scope was limited to three representative regions of Chongqing, and some important regions were not included. Secondly, only five variables that directly or indirectly affect satisfaction and use intention were included in the analysis, while other constructs deemed to have significant observational value were not included in the conceptual framework construction of this study. Further research might involve using e-commerce platforms in other regions, such as Beijing, Xinjiang, etc. Exploring e-commerce usage in different regions might lead to different findings, improve the generality of the research model, and obtain more generalized results. Further research could include government administrators and enterprises in the respondents to understand their views on using e-commerce platforms. Further research could include e-commerce platforms such as C2C to understand the influencing factors of different e-commerce platforms. In future studies, researchers could use experimental methods to control other variables that may confuse causalities, such as defining a specific quality factor and observing the effect of this independent variable on dependent variable satisfaction and behavioral intention.

References

- Abdurrahman, D. T., Owusu, A., & Bakare, A. S. (2020). Evaluating Factors Affecting User Satisfaction in University Enterprise Content Management (ECM) Systems. *Electronic Journal of Information Systems Evaluation*, 23(1), 1-16. <https://doi.org/10.34190/ejise.20.23.1.001>
- Abu-Shanab, E., & Hammouri, Q. (2018). Exploring Factors Affecting Users' Satisfaction Toward E-Learning Systems. *International Journal of Information and Communication Technology Education*, 14(1), 44-57. <https://doi.org/10.4018/ijicte.2018010104>
- Ackoff, R. L. (1953). *The Design of Social Research* (1st ed.). Chicago Press.
- Agarwal, R., & Karahanna, E. (2000). Time Flies When You're Having Fun: Cognitive Absorption and Beliefs about Information Technology Usage. *MIS Quarterly*, 24(4), 665. <https://doi.org/10.2307/3250951>
- Agarwal, R., & Prasad, J. (1999). Are Individual Differences Germane to the Acceptance of New Information Technologies?. *Decision Sciences*, 30(2), 361-391. <https://doi.org/10.1111/j.1540-5915.1999.tb01614.x>
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour* (1st ed.). Prentice-Hall.
- Al-Ammari, J., & Hamad, S. (2008). Factors influencing the adoption of e-learning at UOB. In *Proceedings of the 9th International Arab Conference on Information Technology*, 1-10.
- Al-Mamary, Y. H., & Shamsuddin, A. (2015). Testing of the technology acceptance model in context of yemen. *Mediterranean Journal of Social Sciences*, 6(4), 268-273.
- Alzahrani, A. I., Mahmud, I., Ramayah, T., Alfarraj, O., & Alalwan, N. (2017). Extending the theory of planned behavior (TPB) to explain online game playing among Malaysian undergraduate students. *Telematics and Informatics*, 34(4), 239-251.
- Anderson, E., & Sullivan, M. (1993). The antecedents and consequences of consumer satisfaction for firms. *Management Science*, 12(2), 125-143.
- Awang, Z. (2012). *Structural equation modeling using AMOS graphic* (1st ed.). Penerbit University Teknologi MARA.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107(2), 238-246. <https://doi.org/10.1037/0033-2909.107.2.238>
- Bharati, P., & Berg, D. (2003). Managing information systems for service quality: a study from the other side. *Information Technology & People*, 16(2), 183-202. <https://doi.org/10.1108/09593840310478685>
- Bhattacharjee, A. (2001). Understanding information systems continuance: an expectation-confirmation model. *MISQ*, 25, 351-370.
- Bollen, K. A. (1989). *Structural equations with latent variables* (1st ed.). John Wiley & Sons.
- Boslaugh, S. (2008). *Structural Equation Modeling* (1st ed.). Encyclopedia of Epidemiology. <http://doi.org/10.4135/9781412953948.n443>.
- Brady, M. K., & Cronin, J. J. (2001). Some New Thoughts on Conceptualizing Perceived Service Quality: A Hierarchical Approach. *Journal of Marketing*, 65(3), 34.
- Chang, C.-C., Yan, C.-F., & Tseng, J.-S. (2012). Perceived convenience in an extended technology acceptance model: Mobile technology and English learning for college students. *Australasian Journal of Educational Technology*, 28(5). <https://doi.org/10.14742/ajet.818>

- Chau, P. Y. K., & Hu, P. J.-H. (2001). Information Technology Acceptance by Individual Professionals: A Model Comparison Approach. *Decision Sciences*, 32(4), 699-719. <https://doi.org/10.1111/j.1540-5915.2001.tb00978.x>
- Chen, Y.-H. (2015). Testing the impact of an information literacy course: Undergraduates' perceptions and use of the university libraries' web portal. *Library & Information Science Research*, 37(3), 263-274. <https://doi.org/10.1016/j.lisr.2015.04.002>
- Cheng, Y.-M. (2014). Extending the expectation-confirmation model with quality and flow to explore nurses continued blended e-learning intention. *Information Technology & People*, 27(3), 230-258. <https://doi.org/10.1108/itp-01-2013-0024>
- Davis, D., & Cosenza, R. M. (1993). *Business Research for Decision-Making* (3rd ed.). Wadsworth.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319. <https://doi.org/10.2307/249008>
- DeLone, W. H., & McLean, E. R. (1992). Information Systems Success: The Quest for the Dependent Variable. *Information Systems Research*, 3(1), 60-95. <https://doi.org/10.1287/isre.3.1.60>
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information system success: a ten-year update. *J. Manage. Inf. Syst.*, 19, 9-30.
- DeLone, W. H., & McLean, E. R. (2004). Measuring e-Commerce Success: Applying the DeLone & McLean Information Systems Success Model. *International Journal of Electronic Commerce*, 9(1), 31-47. <https://doi.org/10.1080/10864415.2004.11044317>
- Doll, W. J., & Torkzadeh, G. (1988). The Measurement of End-User Computing Satisfaction. *MIS Quarterly*, 12(2), 259. <https://doi.org/10.2307/248851>
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>
- Franz, C. R., & Robey, D. (1986). Organizational context, user involvement and the usefulness of information systems. *Decision Sciences* 17, 329-356.
- Gorla, N., Somers, T. M., & Wong, B. (2010). Organizational impact of system quality, information quality, and service quality. *The Journal of Strategic Information Systems*, 19(3), 207-228. <https://doi.org/10.1016/j.jsis.2010.05.001>
- Hair, J. F., Money, A., Page, M., & Samouel, P. (2003). *Researcher methods for business* (1st ed.). John Wiley & Sons, Inc.
- Hassan, A., & Abu-Shanab, E. A. (2020). Exploring the Factors Affecting User Satisfaction with Metrash2 System. *International Journal of Electronic Government Research*, 16(1), 18-39.
- Hong, W., Thong, J. Y. L., Wong, W.-M., & Tam, K.-Y. (2002). Determinants of User Acceptance of Digital Libraries: An Empirical Examination of Individual Differences and System Characteristics. *Journal of Management Information Systems*, 18(3), 97-124. <https://doi.org/10.1080/07421222.2002.11045692>
- Huh, Y. U., Keller, F. R., Redman, T. C., & Watkins, A. R. (1990). Data quality. *Information and Software Technology*, 32(8), 229-265.
- Jayawarna, D., Rouse, J., & Kitching, J. (2013). Entrepreneur motivations and life course. *International Small Business Journal: Researching Entrepreneurship*, 31(1), 34-56. <https://doi.org/10.1177/0266242611401444>
- Kesharwani, A., Sreeram, A., & Desai, S. (2017). Factors affecting satisfaction and loyalty in online grocery shopping: an integrated model. *Journal of Indian Business Research*, 9(2), 107-132. <https://doi.org/10.1108/jibr-01-2016-0001>
- Kim, G., Shin, B., & Lee, H. G. (2009). Understanding dynamics between initial trust and usage intentions of mobile banking. *Information Systems Journal*, 19(3), 283-311. <https://doi.org/10.1111/j.1365-2575.2007.00269.x>
- Lederer, A. L., Maupin, D. J., Sena, M. P., & Zhuang, Y. (2000). Technology acceptance model and the world wide web. *Decision Support Systems*, 29(3), 269-282.
- Lee, D. Y., & Lehto, M. R. (2013). User acceptance of YouTube for procedural learning: An extension of the Technology Acceptance Model. *Computers & Education*, 61, 193-208. <https://doi.org/10.1016/j.compedu.2012.10.001>
- Lee, K. C., & Chung, N. (2009). Understanding factors affecting trust in and satisfaction with mobile banking in Korea: A modified DeLone and McLean's model perspective. *Interacting with Computers*, 21(5-6), 385-392. <https://doi.org/10.1016/j.intcom.2009.06.004>
- Lin, J. C. C., & Lu, H. (2000). Towards an understanding of the behavioral intention to use a Web site. *International Journal of Information Management*, 20(3), 197-208. [https://doi.org/10.1016/s0268-4012\(00\)00005-0](https://doi.org/10.1016/s0268-4012(00)00005-0)
- Lu, H.-P., & Chiou, M.-J. (2010). The impact of individual differences on e-learning system satisfaction: A contingency approach. *British Journal of Educational Technology*, 41(2), 307-323. <https://doi.org/10.1111/j.1467-8535.2009.00937.x>
- Lu, I. Y., Kuo, T., & Lee, W. P. (2010). Examining the effects of information quality on behavioral intention of knowledge management system. *Journal of Quality*, 17(4), 297-309.
- Lwoga, E. (2013). Measuring the success of library 2.0 technologies in the African context. *Campus-Wide Information Systems*, 30(4), 288-307.
- Mahmood, M. A., Janice, M., & Leopoldo, A. (2000). Variables affecting information technology end-user satisfaction: a meta-analysis of the empirical literature. *International Journal of Human-Computer Studies*, 52(4), 751-771.
- Malina, M. A., Norreklit, H. S. O., & Selto, F. H. (2007). Relations among measures, climate of control, and performance measurement models. *Contemporary Accounting Research*, 24(3), 935-82.
- Masrek, M. N. (2007). Measuring campus portal effectiveness and the contributing factors. *Campus - Wide Information Systems*, 24(5), 342-354. <https://doi.org/10.1108/10650740710835760>
- Mathew, M. (2014). Perceptions and Intentions of Customers towards Mobile Banking Adoption. *Journal of Contemporary Management Research*, 8(1), 83-101.
- Misick, M. M., & Johnson, K. (1999). Bench marking a tool for web site evaluation and improvement. *Internet Research*, 9(5), 383-392.
- Newcomb, M. D., & Bentler, P. M. (1988). Impact of Adolescent Drug Use and Social Support on Problems of Young Adults: A longitudinal study. *Journal of Abnormal Psychology*, 97(1), 64-75. <https://doi.org/10.1037/0021-843X.97.1.64>

- Nicole, K. L., Adrian, P., & Alexander, M. (2010). Predicting young consumers' take up of mobile banking services. *International Journal of Bank Marketing*, 28(5), 410-432.
- Nripendra, P. R., Yogesh, K. D., & Michael, D. W. (2013). Examining the Factors Affecting Intention to Use of, and User Satisfaction with Online Public Grievance Redressal System (OPGRS) in India. *Grand Successes and Failures in IT: Public and Private Sectors*, 402, 240-260.
- Oliver, R. L. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*, 17(4), 460-469.
<https://doi.org/10.1177/002224378001700405>
- Park, C. H., & Kim, Y. G. (2006). The Effect of Information Satisfaction and Relational Benefit on Consumers' Online Shopping Site Commitments. *Journal of Electronic Commerce in Organizations*, 4(1), 70-90.
- Park, S. C., Lee, W. J., & Kim, J. (2004). Effects of Website Quality on Transaction Intentions in Internet Shopping: An Empirical Analysis of Mediating effects of Trust and Satisfaction. *Korean Management Science Review*, 21(2), 123-143.
- Pedroso, C. B., da Silva, A. L., & Tate, W. L. (2016). Sales and Operations Planning (S&OP): Insights from a multi-case study of Brazilian Organizations. *International Journal of Production Economics*, 182, 213-229.
<https://doi.org/10.1016/j.ijpe.2016.08.035>
- Rai, A., Lang, S. S., & Welker, R. B. (2002). Assessing the Validity of IS Success Models: An Empirical Test and Theoretical Analysis. *Information Systems Research*, 13(1), 50-69.
<https://doi.org/10.1287/isre.13.1.50.96>
- Rajan, C. A., & Baral, R. (2015). Adoption of ERP system: An empirical study of factors influencing the usage of ERP and its impact on end user. *IIMB Management Review*, 27(2), 105-117.
<https://doi.org/10.1016/j.iimb.2015.04.008>
- Rasheed, H. M. W., Khalid, J., Khizar, H. M. U., Sajid, M., Shahid, M. N., Ahmad, M., & Khan, W. A. (2015). Factors affecting Customer Loyalty in Banking Sector: A study on Banks in Bahawalpur (Pakistan). *International Journal of Accounting and Financial Reporting*, 1(1), 239.
<https://doi.org/10.5296/ijaf.v5i1.7726>
- Rossmann, G. B., & Wilson, B. L. (1984). Numbers and words: combining quantitative and qualitative methods in a single large-scale evaluation study. *Evaluation Review*, 9(5), 627-43.
- Rouibah, K., Dihani, A., & Al-Qirim, N. (2020). Critical Success Factors Affecting Information System Satisfaction in Public Sector Organizations: A Perspective on the Mediating Role of Information Quality. *Journal of Global Information Management*, 28(3), 77-98.
<https://doi.org/10.4018/jgim.2020070105>
- Rust, R. T., & Zahorik, A. J. (1993). Customer satisfaction, customer retention, and market share. *Journal of Retailing*, 69(2), 193-215.
[https://doi.org/10.1016/0022-4359\(93\)90003-2](https://doi.org/10.1016/0022-4359(93)90003-2)
- Saeed, K. A., & Abdinnour-Helm, S. (2008). Examining the effects of information system characteristics and perceived usefulness on post adoption usage of information systems. *Information & Management*, 45(6), 376-386.
<https://doi.org/10.1016/j.im.2008.06.002>
- Schillewaert, N., Ahearne, M. J., Frambach, R. T., & Moenaert, R. K. (2005). The adoption of information technology in the sales force. *Industrial Marketing Management*, 34(4), 323-336.
<https://doi.org/10.1016/j.indmarman.2004.09.013>
- Seddon, P., & Kiew, M.-Y. (1996). A Partial Test and Development of DeLone and Mclean's Model of IS Success. *Australasian Journal of Information Systems*, 4(1), 90-107.
<https://doi.org/10.3127/ajis.v4i1.379>
- Seddon, P. B. (1997). A Respecification and Extension of the DeLone and McLean Model of IS Success. *Information Systems Research*, 8(3), 240-253.
<https://doi.org/10.1287/isre.8.3.240>
- Shaltoni, A. M., Khraim, H., Abuhamad, A., & Amer, M. (2015). Exploring students' satisfaction with universities' portals in developing countries: A cultural perspective. *The International Journal of Information and Learning Technology*, 32(2), 82-93.
<https://doi.org/10.1108/ijilt-12-2012-0042>
- Sharma, G. P., Verma, R. C., & Pathare, P. (2005). Mathematical modeling of infrared radiation thin layer drying of onion slices. *Journal of Food Engineering*, 71(3), 282-286.
<https://doi.org/10.1016/j.jfoodeng.2005.02.010>
- Shelley, M. C. (2006). *Structural Equation Modeling* (1st ed.). Encyclopedia of Educational Leadership and Administration. <http://doi.org/10.4135/9781412939584.n544>.
- Sica, C., & Ghisi, M. (2007). The Italian versions of the Beck Anxiety Inventory and the Beck Depression Inventory-II: Psychometric properties and discriminant power. In M.A. Lange (Ed.), *Leading - Edge psychological tests and testing research*. Nova.
- Sun, H., Lo, C. T., Liang, B., & Wong, Y. L. B. (2017). The impact of entrepreneurial education on entrepreneurial intention of engineering students in Hong Kong. *Management Decision*, 55(7), 1371-1393. <https://doi.org/10.1108/md-06-2016-0392>
- Urvashi, T., Ravi, K., & Ash, N. S. (2016). Customer satisfaction using website functionality, perceived usability and perceived usefulness towards online shopping in India. *Information Development*, 32(5), 1657-1673.
- Van der Heijden, H. (2004). User acceptance of hedonic information system. *MIS Quarterly*, 28(4), 695-704.
<https://doi.org/10.2307/25148660>
- Vanduhe, V. Z., Nat, M., & Hasan, H. F. (2020). Continuance Intentions to Use Gamification for Training in Higher Education: Integrating the Technology Acceptance Model (TAM), Social Motivation, and Task Technology Fit (TTF). *IEEE Access*, 8, 21473-21484.
<https://doi.org/10.1109/access.2020.2966179>
- Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*, 46(2), 186-204.
<https://doi.org/10.1287/mnsc.46.2.186.11926>
- Wang, J. H. (2019). *Statistics* (1st ed.). Wuhan Technology Press.
- Wixom, B. H., & Todd, P. A. (2005). A Theoretical Integration of User Satisfaction and Technology Acceptance. *Information Systems Research*, 16(1), 85-102.
<https://doi.org/10.1287/isre.1050.0042>
- Wu, B., & Chen, X. (2017). Continuance intention to use MOOCs: Integrating the technology acceptance model (TAM) and task technology fit (TTF) model. *Computers in Human Behavior*, 67, 221-232. <https://doi.org/10.1016/j.chb.2016.10.028>

- Wu, J.-H., & Wang, Y.-M. (2006). Measuring KMS success: A respecification of the DeLone and McLean's model. *Information & Management*, 43(6), 728-739. <https://doi.org/10.1016/j.im.2006.05.002>
- Xun, Y. (2016). *A Study on the identity of Chinese Middle school foreign language teachers* (1st ed.). Xinhua Publishing House.
- Yan, Y., & Du, S. (2016). Empirical Study for the Influence Factors of Customer Satisfaction Based on B2C Online Shopping. *Journal of Computational and Theoretical Nanoscience*, 13(12), 10364-10368. <https://doi.org/10.1166/jctn.2016.6166>
- Zhong, K., Feng, D., Yang, M., & Jaruwanaikul, T. (2022). Determinants of Attitude, Satisfaction and Behavioral Intention of Online Learning Usage Among Students During COVID-19. *AU-GSB E-JOURNAL*, 15(2), 49-57. <https://doi.org/10.14456/augsbejr.2022.71>
- Zolotov, M. N., Oliveira, T., Cruz-Jesus, F., & Martins, J. (2018). Satisfaction with e-participation: A Model from the Citizen's Perspective, Expectations, and Affective Ties to the Place. *Advances in Intelligent Systems and Computing*, 745, 1049-1059. https://doi.org/10.1007/978-3-319-77703-0_102
- Zviran, M., Glezer, C., & Avni, I. (2006). User satisfaction from commercial web sites: The effect of design and use. *Information & Management*, 43(2), 157-178. <https://doi.org/10.1016/j.im.2005.04.002>