IJIBC 24-1-27

The Effect of Mongolian Mobile Banking Service Quality on User Satisfaction

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Abstract

This study attempted to demonstrate the role of perceived value and trust in the relationship between mobile banking service quality and use satisfaction. A survey was conducted on customers of Mongolian banks, and an analysis was conducted based on the collected data With the development of the fintech industry, the Internet-based mobile banking market is striving to provide convenient services to consumers. The result led to the introduction of an online-oriented Internet bank that can operate 24 hours a day regardless of time and space. The characteristic of operating only with the Internet has a positive aspect of providing services quickly and conveniently, but at the same time, including concerns about security and personal information leakage. This can make you hesitate to use the service. Therefore, we attempted to find out how the quality of mobile banking service affects the perceived value and satisfaction of using trust. A survey was conducted to verify the contents of the research model and hypothesis. This is to secure data to be used for empirical analysis of research hypotheses. The survey was conducted with 124 consumers in Ulaanbaatar, the capital of Mongolia. Based on the analysis results, we understood the satisfaction of consumers using mobile banking and suggested ways for consumers to improve their actual satisfaction using mobile banking. Specifically, service quality sensitivity, security, convenience, and design had a positive effect on perceived value or trust, ultimately leading to consumer satisfaction.

Keywords: Mobile banking service quality, The perceived value, Trust, Consumer satisfaction

1. Introduction

Mongolia's banks have undergone significant changes as they have been converted to a market economy. After the Banking Act was implemented through the Mongolian Cabinet meeting on May 1, 1991, a two-stage banking system was established and developed. According to the Mongolian Constitution, the banking system of the Republic of Mongolia consists of the Central Bank of the Republic of Mongolia and commercial banks.

The Bank of Mongolia led the reform of the financial intermediary and financial system between 1924 and 1991, and after the emergence of the two-stage financial system after 1991, the bank suddenly developed rapidly. Even in the absence of laws and regulations, the first commercial bank was established and operated in 1990, which contributed to changes in other sectors. According to a World Bank report, Mongolia's banking and financial sector is growing rapidly. Currently, there are 2.5 million Internet users in Mongolia. This is a 36% increase from the previous year. They use Internet banking more than three times a month on average, and among them, 1.2 million customers are the most active. As of the third quarter of 2021, 58% of 29.3 trillion MNT transactions were made through mobile apps.

In modern society, mobile banking has become an essential means of daily life due to the convenience of the banking transaction system. According to the '2020 Mobile Market Report' released by App Annie, as the generation of mobile users becomes younger, many consumers want to work in finance through mobile banking. In fact, the world's financial methods are moving from online and offline to mobile   [1]. Mobile banking refers to banking processing using mobile or terminal. Mobile banking is a new service that combines money computerization and mobile communication, and not only allows customers to handle various financial business anytime, anywhere, but also provides banking services in a convenient, efficient and safe manner. Mobile banking refers to banking services such as cash withdrawal, account information inquiry, transfer, and personal information inquiry made through mobile devices such as mobile phones. A combination of these three characteristics was defined as mobile banking: Wireless, which means Anywhere, On-Line, which is one of the financial services, and Banking, which is one of the financial services .   Shaikh & Karjaluoto (2015) defined mobile banking as a product or service that provides financial business in a bank or microloan institution [2]. Cruz et al. (2010) stated that mobile banking services are divided into transaction-based services (account transfer, bill payment, charging, etc.) and non-transaction/financial information-based services (account balance inquiry, transaction inquiry, confirmation of SMS content for account activities, etc.) [3].

2. Theoretical background & Hypotheses

2.1. Hypothesis between Mobile Banking Service Quality and Perceived Value

The relationship between overall service quality and perceived value, which are components of mobile banking services, is as follows. From the perspective of the service value recognition process, quality of the process linked to quality perception, perceived value, and loyalty. It is described as a (quality)-value-loyalty chain, and a model is presented in which quality perception of service improves the perceived value of users, and furthermore, behavior is linked to loyalty [4]. Existing online service quality measurements had many limitations, considering that consumers' purchasing behavior may differ both online and offline by measuring online service quality based on SURVQUAL developed by [5] as an offline service quality measurement tool, and several researchers [5]. [6] proposed a conceptual model that service quality under Internet banking conditions affects perceived value [6].

In addition, [7] found that service quality affects perceived value, and because perceived value is related to the overall evaluation of consumers' financial and cost aspects of purchasing products or services, value-for-money is very important.

H1: Mobile banking service quality will have a positive (+) effect on perceived value.
H1-1: Sensitivity of service quality will have a positive (+) effect on perceived value.
H1-2: The design of service quality will have a positive (+) effect on perceived value.
H1-3: The security of service quality will have a positive (+) effect on perceived value.
H1-4: The convenience of service quality will have a positive (+) effect on perceived value.

2.2. Hypothesis between Mobile Banking Service Quality and Trust

It has been confirmed by several scholars that service characteristics such as O2O service, social commerce, and mobile platform increase trust in the channel. In addition, by providing quality services, the sales platform gains customer trust and builds a long-term purchase relationship based on the service characteristics [8]. An important relationship was found between perceived service quality and characteristics and trust [9]. Based on these previous studies, this study can speculate that the more positive perceptions of mobile banking service quality factors such as diversity and abundance of information provided by mobile banking service quality, convenience of use, security guarantee for transaction safety, design suitable for my taste and needs, and service quality sensitivity, the higher user trust in the platform.

The following hypothesis was established to investigate the relationship that service factors in Anseong and Pyeongseong increase trust.

H2: Mobile banking service quality will have a positive (+) effect on trust.
H2-1: Sensitivity of mobile banking service quality will have a positive (+) effect on trust.
H2-2: The design of mobile banking service quality will have a positive (+) effect on trust.
H2-3: The security of mobile banking service quality will have a positive (+) effect on trust.
H2-4: The convenience of mobile banking service quality will have a positive (+) effect on trust.

2.3. Hypothesis on the relationship between perceived value and satisfaction with use

Perceived value means that if consumers continue to purchase over a long period of time, consumers feel trust and satisfaction with the product [10]. Perceived values may differ depending on individual evaluation and perception, perceived values measured by emotional and monetary values are satisfied with use and performed. It was argued that it had a significant effect on consent, and in particular, it was suggested that value is important not only for monetary value but also for the value of people's emotions. In other words, it was confirmed that satisfaction increased when they felt positive emotions or judged that they were being respected.

H3: Perceived value will have a positive (+) effect on user satisfaction

2.4. Hypothesis on the relationship between trust and satisfaction with use

[11] confirmed a significant relationship by setting reliability as the cause variable and satisfaction with use as the result variable. On the other hand, [12] verified that satisfaction with use has a positive effect on reliability. [13] states that trust is an important factor in developing a relationship, and long-term satisfaction with service providers due to direct linkage with satisfaction of expectations
It was argued that it strengthened, and use satisfaction was considered a leading variable in reliability.
The fact that trust in goods or services and satisfaction with use have a lasting positive effect on the company's products has been studied by several scholars. In particular, in transactions that occur on online platforms, trust in the platform suppresses factors that cause conflict between consumers and suppliers. It is recognized as a

major factor in increasing satisfaction with use by mitigating it [14].

H4: Trust will have a positive (+) effect on user satisfaction

3. Survey Design

3.1. Dara Colllection and Analysis Method

We conducted a survey of 151 Mongolian mobile banking consumers, of which 24 copies were collected, and a total of 124 copies were subjected to final empirical analysis, excluding unfaithful questionnaire responses and omitted questionnaires. The questionnaire survey period was from May 01 to May 22, 2022. In addition, statistical analysis was conducted using the SPSS 26 statistical program to verify the research model. The analysis method of this study is as follows:

First, frequency analysis was conducted to examine demographic characteristics.

Second, Reliability Analysis and Exploratory Factor Analysis were conducted to confirm the reliability and validity of the items.

Third, a regression analysis was performed to verify the hypothesis of the study.

3.2. Composition of the Questionnaires

All questions were constructed using a 7-point Likert scale. The contents of the questionnaire are shown in <Table 1> below.

Table 1. The Contents of Questionnaires

Variable	The Contents of the Questionnaires
sensitivity	The access and loading speed of the mobile banking system is fast.
	Mobile banking systems are fast processing.
	The mobile banking system is fast to cancel transactions.
Design	The menu structure and composition of the design of the mobile banking service are properly arranged.
	The design of mobile banking services is highly readable.
	The design menu of the mobile banking service is appropriate for my banking business.
	The design menu of the mobile banking service helps me do my banking business quickly.
Security	My personal information will not be leaked in using mobile banking services.
	My transaction information will not be leaked when using mobile banking services.
	It is safe from scams such as phishing in using mobile banking services.
	My information is safe from hacking in using mobile banking services.
convenience	The process of using mobile banking services is simple.
	How to use mobile banking services is easy to understand.
	I can connect to mobile banking at any time and use the services I need regardless of time.
	I can immediately connect to mobile banking regardless of location to access th

	e necessary services and information.
perceived value	The mobile banking service was a very good deal considering the price.
	Considering the price I paid, I enjoyed using mobile banking.
	Considering the price I paid, the mobile banking service was comfortable.
	I think I have received excellent services beyond the payment price in mobile banking.
trust	The company that provides the mobile banking service I use can be trusted.
	The information sent to the mobile phone after the mobile banking payment I use can be trusted.
	The mobile banking I use is accurate and error-free.
	The mobile banking I use is reliable enough to conduct financial transactions.
Satisfaction with use	I am generally satisfied with the mobile banking I use.
	I have a lot of experience of being satisfied with the financial transactions through mobile banking that I use.
	I am satisfied with the overall service of mobile banking that I use.
	The mobile banking service I use is beneficial.

3.3. Empirical Analysis

(1) Reliability & Validity Analysis

This study used Cronbach's Alpha coefficient, which can estimate the internal consistency between items. All of the reliability coefficients of this study can be interpreted as high internal consistency of the items beyond 0.6 or more. Among the delivery service quality, the accuracy value was .777, the economic value was .745, the information value was .782, the safety value was .807. The tangibility value was .793. The reliability was .830, the customer reliability value was .831, and the relationship continuity intention value was .756. The Kaiser-Meyer-Olkin sample fit value and Bartlett's unit matrix test value were significant. Factor extraction was judged as a significant variable of 0.5 or more, and all items were confirmed to be significant.

3.4. Hypothesis Test Results

In this study, the factor of service quality was composed of an independent variable, the perceived value was composed of a dependent variable, and then multiple regression analysis was performed to verify the hypothesis. The degree to which the regression model is explained (R^2=62.4%, F=49.290) was all found to be suitable. Looking at the statistical significance of the individual independent variable dependent variable, it was partially adopted. First, the hypothesis 1-1 that the sensitivity of service quality will have a positive effect on the perceived value in the case of a positive effect on the perceived value is t=3.481, and the hypothesis 1-1 is that t=3.481,
As p<.001, the hypothesis was adopted. Next, the hypothesis 1-2 that the interface design of service quality will have a positive effect on the perceived value was t=-1.635 and p<.105, and the hypothesis was rejected. Hypothesis 1-3 that the security of service quality would have a positive effect on the perceived value was adopted as t=3.850, p<.000. Finally, the hypothesis 1-4 that the convenience of service quality will have a positive effect on the perceived value was t=2.222 and p<.028, and the hypothesis was adopted.

Looking at the results of regression analysis for hypothesis verification, the degree to which the regression model is explained (R^2=61.1%, F=46.758) was found to be all suitable. Looking at the statistical significance of the dependent variable of the individual independent variable, it was partially adopted. First, the hypothesis 2-1 that the sensitivity of service quality will have a positive effect on trust in the case was t=1.968, p<.051,

and the hypothesis was rejected. Next, the hypothesis 2-2 that the interface design of service quality will have a positive effect on trust was t=-1.231, p<.221, and the hypothesis was rejected. Hypothesis 2-3 that the security of service quality will have a positive effect on trust was adopted as t=4.272, p<.000. Finally, the hypothesis 2-4 that the convenience of service quality will have a positive effect on trust was adopted as t=3.228, p<.002.

This study conducted a simple regression analysis to verify the relationship between perceived value and satisfaction with use. Looking at the results of regression analysis for hypothesis verification, the degree to which the regression model is explained (R²=63.8%, F=214.935) was found to be all suitable. Hypothesis 3 in which the perceived value, an independent variable, affects the use satisfaction, a dependent variable, was adopted as t=14.661, p<.000. This study conducted a simple regression analysis to verify the influence relationship between trust and satisfaction with use. Looking at the results of regression analysis for hypothesis verification, the degree to which the regression model is explained (R²=72.1%, F=315.897) was found to be all suitable. Hypothesis 4 in which the independent variable, Shinro, affects the dependent variable, satisfaction with use, was adopted as t=17.773, p<.000.

5. Conclusion

Based on the analysis results, the marketing implications for understanding the satisfaction of consumers using mobile banking and enhancing the actual satisfaction of consumers using mobile banking are as follows.

First, the sensitivity, security, and convenience of service quality showed a positive effect on perceived value. However, it was found that the design did not affect the perceived value. Consumers who have used Mongolian mobile banking have found that the sensitivity, security, and convenience of mobile banking are more important than mobile banking design. In other words, the mobile banking system's access and loading speed, the system needs a management system to speed up processing speed, and transaction cancellation speed, and it is important not to leak customers' personal information and transaction information when using mobile banking services. When using mobile banking services, it is necessary to make customer information safe from fraud and hacking such as phishing, and to make the process of using mobile banking services simple and easy to understand. Customers should be connected to mobile banking at any time to access necessary services and information so that they can use the necessary services.

Second, it was found that the security and convenience of service quality had a positive effect on trust and did not affect sensitivity and design trust. In other words, it is important not to leak users' personal information and transaction information when using mobile banking services, and to keep users' information safe from fraud and hacking such as phishing in mobile banking services. In addition, the process of using Mongolian bank mobile banking services should be simple and the method should be made easy to understand. In addition, users should be able to connect to mobile banking at any time, regardless of time, and immediately connect to mobile banking regardless of location to access important services and information.

Third, perceived value and trust had a positive effect on user satisfaction. First of all, mobile banking services must provide superior services beyond the price that customers have to pay, and they must be pleasant and comfortable while using mobile banking. In addition, mobile banking must be reliable, and mobile banking must be accurate, error-free, and reliable enough to conduct financial transactions.

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