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Analysis of Information System Quality and User Acceptance on Internet Banking Industry

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Abstract

This research is conducted to elaborate and analyze what factors that can drive customer satisfaction and continuance intention in using internet banking. This objective is based upon the research program that discussing the motivation of internet users in visiting commercial content and made online transactions. However, still a little bit of commercial content visitors make payments via internet banking. The populations of this research are customer of Bank BCA, Bank Mandiri, Bank BRI and Bank BNI located in Jakarta and surrounding areas. Sampling was done by purposive sampling method and obtained a sample of 156 respondents. The variables used in this research were system quality, information quality, service quality, perceived usefulness, user satisfaction, subjective norms, and continuance intention. The method of analysis in this research is path analysis. The result showed that the information quality has no significant effect on user satisfaction. While the system quality, service quality, and perceived usefulness have a significant positive effect on user satisfaction. It means, if internet banking that has the high assessment of system quality, service quality, and perceived usefulness, then the customer satisfaction of internet banking is high. In addition, user satisfaction, perceived usefulness, and subjective norms have a significant positive effect on continuance intention. It means if customer's assessment of user satisfaction, perceived usefulness, and subjective norms on internet banking is high, then the intention of customers to continue using internet banking is high.

Keywords: Internet banking; System quality; Information quality

Introduction

The development of information technology has an important role in supporting society activities and has become a necessity. By leveraging the development of information technology, Bank Indonesia invites Indonesians to change their habit of transactions using cash into non-cash (less cash society) through the Gerakan Nasional Non Tunai (GNNT) program launched on 14 August 2014 [1,2].

The Asosiasi Penyelenggara Jasa Internet Indonesia (APJII) revealed the number of Indonesian internet user reached 88 million users until the end of 2014 [3]. By the end of 2016 the number of internet users in Indonesia has increased to 132.7 million users. This evidence revealed that the internet connection is increasingly demanding by the public. This condition is also considered to be a promising opportunity for business organizations.

APJII (2016) revealed that by 2016, 93.1% or 123.5 million internet users are visitors of commercial content [3]. From all visitors to the commercial content, some 84.2 million users have made online transaction. The high interest of the community in conducting online transactions provides banking opportunities in developing internet banking services. Internet banking is a service that allows bank customers to obtain information, communicate, and perform banking transactions by online through internet network. However, technical payments used by visitors of commercial content are dominated by payments via Automatic Teller Machine (ATM) and Cash on Delivery (COD). Only about 7.5% of commercial content visitors make payments via internet banking. Based on this information, it can be

indicated that implicitly there are problems related to Internet Banking service so there are still not many who use it. In fact, by using internet banking, customers do not need to go to the nearest branch office, go to the ATM or prepare cash (with COD) to make the payment. In addition, internet banking provides convenience to customers in banking transactions such as balance checks, account transfers, inter-account transfers, bill payments and others. The many facilities offered by banks through internet banking services are also expected to encourage people to make non-cash payment transactions [4,5].

In Indonesia, there are many banking companies that provide internet banking services. Banking companies compete with each other in providing the maximum quality of internet banking services so that customers are satisfied and will still use the internet banking services. There are four internet banking services which for five consecutive years occupy the top position based on the rank given by Top Brand Award. They are KlickBCA which is owned by PT Bank Central Asia (Persero) Tbk, Internet Banking Mandiri which is owned by PT Bank Mandiri (Persero) Tbk, Internet Banking BRI which is owned by PT Bank Rakyat Indonesia (Persero) Tbk, and BNI Internet Banking which is owned by PT Bank Negara Indonesia (Persero) Tbk. Top Brand's assessment base is the result of research on Indonesian consumers and purely on consumer choice [6-10]. The quality of internet banking services from the four banks can serve as an example for other banks in order to improve and compete in providing the better internet banking services. In other words, these four internet banking services are the internet banking services best known by the people of Indonesia.

The good quality of internet banking will provide satisfaction for customers. Additionally, revenue will increase through fee based

income as the intensity of transactions increases through internet banking. Internet banking services also provide benefits for banks in minimizing the use of costs for infrastructure development such as ATM, branch office development, and costs for employees. In his research, Sugiarto revealed that the existence of internet banking facilities proved to affect the performance of a bank [11].

Banks need to know how the customer acceptance of the internet banking services provided. Therefore, the banks are required to determine any factors that can drive customer satisfaction and interest in using internet banking. Gong and Seon used several dimensions that include system quality, information quality, and service quality as a reflection of the quality of information systems on internet banking in their research [12]. Research conducted by Tam and Oliveira show that these factors can be proven to have an effect on user satisfaction [13]. Research conducted by Alsamydai, et al. shows that one of the constructs of Technology Acceptance Model (TAM) that is perceived usefulness has an effect on user satisfaction [14]. Accoring to Gunawan, TAM was first introduced by Davis and developed to explain the behavior of the use of technology. In their research, Aliabadi, et al. revealed that the satisfaction of internet banking usage has an influence on continuance intention of using internet banking [15,16]. Rahmath et al. revealed that perceived usefulness has an influence on continuance intention of using internet banking. Research conducted by Safeena, et al. also show that subjective norms can encourage [17].

Literature Review and Research Hypothesis

Realizing on the facts, this research is initiated to fill the gap that possibility has not been done by previous studies by conducted re-examination on the quality of information system on internet banking, perceived usefulness, user satisfaction, subjective norms and continuance intention to using internet banking. In this research, the quality of internet banking is viewed from several dimensions including system quality, information quality, and service quality. The quality of internet banking and the perceived usefulness of user are thought to affect the user satisfaction. Besides, perceived usefulness, user satisfaction and subjective norms are also thought to affect the continuance intention to using internet banking.

Dimension of internet banking quality

An organization implements an information system in the hope that the information system is successful or successful in its operation or in other words can provide convenience and support its business activities. There have been many studies conducted to identify the factors that led to the success of the information system. Research conducted by DeLone and McLean is one of the researches that is often used as a reference and carried out the development of the model associated with the success of an information system. The popularity of DeLone and McLean models because their model is a simple model but considered quite valid [18].

Internet banking is an information system with customers as the users, not intention in using internet banking system which is one of the constructs of Theory of Planned Behavior (TPB) the internal side of the organization. Therefore, this research refers DeLone and McLean Information System Success Model that is applied in internet system that is e-commerce [18]. DeLone and McLean modify their model to apply to e-commerce by adding the dimension of information system quality that is service quality [18]. There are three

dimensions of information system quality in the model of success. There are many studies that use the three dimensions of information system quality in the model, which includes system quality, information quality, and service quality to assess the quality of an information system, especially information systems that utilize the Internet network in its operation.

The first dimension of information system quality is the system quality. The system quality is used to measure the quality of its own information technology system. In the internet environment, the system quality assessed by the user is the usability, availability; reliability, adaptability, and response time for example download time. New measurements that appear specifically in e-commerce are customization, ease of navigation, privacy and security. Security becomes a quality system issue in e-commerce because the internet can be accessed by anyone including parties who want to harm others. Quan conducted a research related to the quality of information systems on internet banking in China [19]. One of the objectives in the research was to examine the effect of system quality on user satisfaction. The results of the study indicate that the system quality has a positive influence on satisfaction. This shows that if the better system quality of internet banking will increase the satisfaction of the internet banking users. Ling et al. conducted a research to determine the effect of system quality on e-filling user satisfaction in Malaysia [20]. The results of the study indicate that the system quality has an influence on user satisfaction. This shows that if the better system quality of e-filling will increase the satisfaction of the e-filling users.

Based on the description above, the hypothesis that will be purposed in this research is:

H1: System quality has a significant effect on user satisfaction.

The second dimension of information system quality is the information quality. The information quality is used to measure the quality of the information system output. The information quality captures the contents of the internet system in concerned. The measurements such as web content must be personalized, complete, relevant, easy to understand, and secure. Tam and Oliveira conducted a research to determine the effect of information quality on mobile banking user satisfaction [13]. The results showed that information quality has an effect on user satisfaction. The results showed that information quality has a significant positive effect on user satisfaction. Jafreh conducted a research to investigate the evaluation of the success of information systems in the banking sector in Saudi Arabia [21]. In his research, Jafreh examined the effect of information quality on user satisfaction. The results showed that the information quality has a positive effect on user satisfaction [21,22].

Based on the description above, the hypothesis that will be purposed in this research is:

H2: Information quality has a significant effect on user satisfaction.

The third dimension of information system quality is the service quality. This dimension is becoming more important in the internet environment especially the internet banking system than in the previous implementation of DeLone and McLean models [18]. Internet banking system users are customers, not employees or internal users of the organization (banking companies). Therefore, poor service quality support will lead to reduced or even loss of customers using internet banking services. Service quality is generally measured by the speed of response and the effectiveness of online support capabilities in answering customer questions. Gong and Seon conducted a research to

determine the effect of e-service quality on user satisfaction on e-banking [12]. One of the variables examined for its effect on user satisfaction is the service quality. The results of the study indicate that the service quality has a significant influence on user satisfaction. Kutlu and Alkaya conducted a research to determine the effect of service quality on user satisfaction in the banking sector in Turkey [23]. The results showed that the service quality has a positive effect on user satisfaction [24].

Based on the description above, the hypothesis that will be purposed in this research is:

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

Perceived usefulness

Technology Acceptance Model (TAM) was first introduced by Davis. TAM is the development of the Theory of Reasoned Action (TRA) [13]. TAM model is a model of acceptance of information technology that will be used by the user. TAM added two main constructs to the TRA model [13]. The two main constructs are perceived usefulness and perceived ease of use. The perceived usefulness is defined as the extent to which a person believes that using a technology will improve the performance of his/her work. The perceived ease of use is defined as the extent to which a person believes that using a technology will be free from effort.

This research used one of the two main constructs, namely the perceived usefulness. Through its definition can be seen that the perceived usefulness is a belief about the decision-making process. Thus, if a person feels confident that the information system is useful and he/she will use it, and vice versa. Perceived usefulness becomes a measure of trust if an information technology provides many benefits to its users. If users of information systems believe that the information system used is useful, then users will feel satisfied, then user will feel satisfied and use the information system is continuously [25].

Alsamydai et al. used the perceived usefulness to be examined for its effect on user satisfaction [14]. The results showed that perceived usefulness has a significant positive effect on user satisfaction. Tsai, et al. conducted a research which is one of the objectives of the research was to determine the effect of perceived usefulness on continuance intention to using internet banking in Taiwan [26]. The results of this study indicate perceived usefulness have a positive influence on continuance intention to using internet banking. This indicates that if the better the perception of customers to the usefulness of internet banking will increase the satisfaction of the internet banking users.

Based on the description above, the hypothesis that will be purposed in this research is:

H4: Perceived usefulness has a significant effect on user satisfaction.

H6: Perceived usefulness has a significant effect on continuance intention.

User satisfaction

User satisfaction is the user's response to the use of information systems output. The information system discussed in this research is internet banking where the user is the customer. Customer satisfaction is the feeling of pleasure or disappointment someone who emerges after comparing the performance (result) of the products that are thought out to the expected performance (results) expected. Some researchers propose to use user satisfaction as a measure of the success

of information system. The satisfaction of an information system user will bring a person's intention to continue using the information system. Therefore, if customers are satisfied with the use of internet banking system, it will bring continuance intention of customers to using internet banking system.

Alsamydai et al. research was conducted to examine the effect of user satisfaction on the decision to continue using electronic banking [14]. The results of the research indicate that user satisfaction has a positive effect on the decision to continue using electronic banking. Ofor et al. conducted a research to identify factors affecting continuance intention to use internet banking in Ghana [27]. One factor that examined its influence on continuance intention is user satisfaction. The results of the research indicate that user satisfaction positively affects the continuance intention to use internet banking.

Based on the description above, the hypothesis that will be purposed in this research is:

H5: User satisfaction has a significant effect on continuance intention.

Subjective norms

Subjective norms are the perceptions or views of a person against the beliefs of others that will influence the intention to do or not to do the behavior under consideration. Certain individuals or groups used as reference points to guide behavior are referred to as referents. In general, humans who believe in most referents who motivate them to obey and think should do a behavior, it is said to be accepting social pressure to do such behavior. Conversely, humans who believe that most referents that motivate them to obey but do not agree to conduct a behavior will have subjective norms that put pressure on them to avoid doing such behavior.

Yaghoubi and Bahmani conducted research related to the adoption of online banking in Isfahan province of Iran. One of the objectives in the research was to examine the effect of subjective norms on behavioral intention to using online banking [28]. The results of the research indicate that subjective norms have a positive effect on behavioral intention to use online banking. This indicates that if the higher subjective norms will increase the behavior intention to use online banking. Safeena, et al. conducted a research to identify the factors that affect the continuance intention to using internet banking [17]. One of the factors examined is subjective norms. The results showed that subjective norms have a significant positive effect on continuance intention.

Based on the description above, the hypothesis that will be purposed in this research is:

H7: Subjective norms have a significant effect on continuance intention.

Research Methodology

Based on the description above, the model of this research may be constructed as seen on diagram of Figure 1.

Data type and resource

The data used in this study are primary data obtained directly from customers of PT Bank Central Asia (BCA), PT Bank Mandiri (Mandiri), PT Bank Rakyat Indonesia (BRI) and PT Bank Negara Indonesia (BNI) who using internet banking services [29].
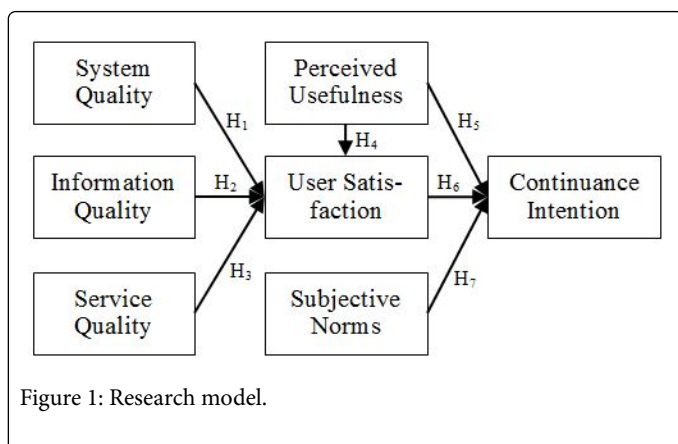
Figure 1: Research model.

Population and sample

The populations of this research are customer of PT Bank Central Asia (BCA), PT Bank Mandiri (Mandiri), PT Bank Rakyat Indonesia (BRI) and PT Bank Negara Indonesia (BNI) located in Jakarta and surrounding areas. The sampling method used is purposive sampling where are samples selected using on certain criteria. Based on the selection process, the sampling has acquired 156 respondents who are meet the criteria's determined beforehand used as the sample of this research [30,31].

Analysis method

This research used multiple path analysis for its statistical testing tools. Path analysis is used to estimate the closeness of the relationships among variables in the proposed model based on theoretical considerations and the relationship between variables tested is generally a causality relationship or dependency statistically. This research uses the help of AMOS application program in conducting data analysis.

Result

Measuring instruments validity and reliability test

Prior to data processing for model testing and hypothesis testing, it is necessary to test the instruments used in the questionnaire. A questionnaire is said to be valid if the question on the questionnaire is able to reveal something that will be measured by the questionnaire [32]. One of validity test is Product Momen Pearson Correlation. In this validity test, the basis of decision making is that if the value of Pearson Correlation is greater than the value of rtable at 5% significance, then the item is declared valid. The result showed that the Pearson Correlation value of all items used in the questionnaire is greater than the rtable value at 5% significance of 0.361. Therefore, it can be concluded that all these items have been valid and can be used as a means of data collection in research conducted. The validity of the items can also be viewed through the Item Discrimination Power (IDP). According to Azwar, IDP is the extent to which items are able to distinguish between individuals or groups of individuals who have and who do not have the attributes measured [33]. The item determination criteria are categorized as items that meet the discrimination power index if corrected item total correlation ≥0.300. The result show that

the Pearson Correlation value of all items used in the questionnaire is greater than 0.300. Therefore, it can be concluded that all these items have been valid and can be used as a means of data collection in research conducted.

A questionnaire is said to be reliable if one's response to a statement is consistent or stable over time. A construct or variable is said to be reliable if Cronbach Alpha >0.70. This study tested thirty samples before disseminating to large samples. The result show that the Cronbach's Alpha value of all items on the variables used in the questionnaire is greater than 0.70. Therefore, it can be concluded that all these items have been reliable or trusted as a means of collecting data in research.

Result of the goodness of fit test

There is needed an assessment to find out how fit a model built on the data owned. This research has used several model fit measurement/index.

No.	Model Fit Index	Benchmark	Measurement Model	Result
1.	Chi-Quadrat Statistic (CMIN)	The smaller, the more fit	2.760	Fit
2.	Goodness-of-Fit Index (GFI)	≥0.90	0.995	Fit
3.	Adjusted Goodness-of-Fit Index (AGFI)	≥0.90	0.964	Fit
4.	Root Mean Square Error of Approximation (RMSEA)	≤0.05	0.000	Fit
5.	Tucker-Lewis Index (TLI)	≥0.90	1.010	Fit
6.	Comparative Fit Index (CFI)	≥0.90	1.000	Fit

Table 1: Result of the goodness of Fit Test.

Based on the Table 1 it can be seen that the results of the six fit index models have met the standard values specified for each index. Thus, it can be concluded that the model proposed in this research is fit.

Hypothesis result

The intercept of the first regression model is 0.23. Thus the mathematical estimation model is:

$$US=0.23+0.39SyQ+0.04InQ+0.23SvQ+0.30PU$$

From Table 2 the results of statistical tests for the first regression model showed that of the four variables used only system quality, service quality, and perceived usefulness have significant effect on user satisfaction. This can be seen from the Pvalue for the system quality of ***(very small value) and the value of C.R is 6.093, Pvalue for the service quality of ***(very small value) and the value of C.R is 3.679, and Pvalue for the perceived usefulness of ***(very small value) and the value of C.R is 5.055. This shows that the probability of significance generated by system quality, service quality, and perceived usefulness is no more than 0.05 and the critical ratio value is greater than 1.96, it can be concluded that system quality, service quality, and perceived usefulness affect user satisfaction.

	Estimate	S.E.	C.R.	P	Result	Hypothesis
US←SyQ	0.393	0.065	6.093	***	Significant	H1: Accepted
US←InQ	0.041	0.070	0.584	0.559	No Significant	H2: Rejected
US←SvQ	0.227	0.062	3.679	***	Significant	H3: Accepted
US←PU	0.298	0.059	5.055	***	Significant	H4: Accepted
CI←US	0.417	0.082	5.051	***	Significant	H5: Accepted
CI←PU	0.240	0.084	2.868	0.004	Significant	H6: Accepted
CI←SN	0.162	0.050	3.213	0.001	Significant	H7: Accepted
Intercept of the first regression 0.23						
Intercept of the second regression 0.86						
SyQ=System Quality; InQ=Information Quality SvQ=Service Quality; PU=Perceived Usefulness						
SN=Subjective Norms; US=User Satisfaction						
CI=Continuance Intention; ***very small value.						

Table 2: Hypothesis result.

Based on the results of regression analysis can be seen that the system quality has a positive effect on user satisfaction. If the system quality increases one unit while the quality of information, service quality and perceived usefulness are considered constant, the user satisfaction rate will increase by 0.39 units. The result of regression analysis also shows that service quality has a positive effect on user satisfaction. If service quality increases one unit while system quality, information quality and perceived usefulness are considered constant, then user satisfaction level will increase by 0.23 units. Perceived usefulness also has a positive effect on user satisfaction. If perceived usefulness increases one unit while system quality, information quality and service quality are considered constant, then user satisfaction level will increase by 0.30 units.

While the information quality has a probability significance of 0.559 (Pvalue>0.05) and critical ratio value equal to 0.584 (Pvalue>0.05). Therefore, it can be concluded that the information quality has no significant effect on user satisfaction.

The intercept of the second regression model is 0.86. Thus the mathematical estimation model is:

CI=0.86+0.42US+0.24PU+0.16SN

The results of statistical tests for the second regression model showed that the three variables used are perceived usefulness, subjective norms, and user satisfaction have significant effect on continuance intention. This can be seen from the Pvalue for the user satisfaction of ***(very small value) and the value of C.R. is 5.051, Pvalue for the perceived usefulness of 0.004 and the value of is 2.868, and Pvalue for the subjective norms of 0.001 and the value of C.R is 3.213. This shows that the probability of significance generated by user satisfaction, perceived usefulness and subjective norms is no more than 0.05 and the critical ratio value is greater than 1.96, it can be concluded that by user satisfaction, perceived usefulness and subjective norms affect continuance intention.

Based on the results of regression analysis can be seen that the user satisfaction has a positive effect on continuance intention. If the user satisfaction increases one unit while the perceived usefulness and subjective norms are considered constant, the continuance intention rate will increase by 0.42 units. The result of regression analysis also shows that perceived usefulness has a positive effect on continuance intention. If perceived usefulness increases one unit while user satisfaction and subjective norms are considered constant, then continuance intention level will increase by 0.24 units. Subjective norm also has a positive effect on continuance intention. If subjective norms increases one unit while user satisfaction and perceived usefulness are considered constant, then continuance intention level will increase by 0.16 units.

Discussion

Based on the statistical results, the significance value of the system quality is ***(very small value) with the estimated value of 0.393. The probability of significance is not greater than 0.05. This shows that the system quality has an influence on user satisfaction. Therefore, hypothesis 1 (H1) in the research that states "system quality has a significant effect on user satisfaction" is accepted. The system quality has a positive coefficient direction. This is in line with research conducted by Tam and Oliveira which states that the system quality has a positive effect on user satisfaction [13]. System quality is used to measure the quality of its own information technology system. In the internet environment especially in this research, the system quality that assessed by user is the time to load text and graphics, ease to use and navigation, visualization, security in transactions, privacy and data security, and flexibility (can be used anytime and anywhere). Based on the results of statistical tests, it can be seen that customer assessment of the system quality has a positive effect on the satisfaction of internet banking usage. In other words, if the higher the customer assessment on the quality of internet banking system, then the satisfaction of internet banking usage is getting higher. The results of this research are also in line with research conducted by Jafreh [21].

Based on the statistical results, the significance value of the information quality is 0.559 with the estimated value of 0.041. The probability of significance is greater than 0.05. This shows that the information quality has no an influence on user satisfaction. Therefore,

hypothesis 2 (H2) in the research that states "information quality has a significant effect on user satisfaction" is rejected. This is in line with research conducted by Ling et al. which states that the information quality has no effect on user satisfaction [20]. Information quality is used to measure the output quality of information systems. The information quality indicates the quality of the product produced by the information system application and the information will have an effect on its usage and on its system. Information quality captures the content of the information system. Measurements of the quality of information used in this study include information relevant to needs, adequate information, accurate information, and up to date information. Based on the results of statistical tests, it can be seen that customer assessment of the information quality has no effect on the satisfaction of internet banking usage. This result indicate that the amount of increase in customer's assessment of internet banking information quality is not significant to the satisfaction of internet banking usage, so it will not affect user satisfaction. The result of this research is also in line with research conducted by Gong and Seon [12]. In contrast to the results of research conducted by Tam and Oliveira, the results of this study indicate that the quality of information is not proven to significant affect the user satisfaction [13]. This may be because customers get the information they need from outside the internet banking system they use. For example, customers more often see their balance information through information printed in a passbook or ATM. In addition, customers may more frequently utilize internet banking services for online transactions such as inter-account transfers, bill payments and others. Customer receives billing information through notification in email or other sources.

Based on the statistical results, the significance value of the service quality is ***(very small value) with the estimated value of 0.227. The probability of significance is not greater than 0.05. This shows that the service quality has an influence on user satisfaction. Therefore, hypothesis 3 (H3) in the research that states "service quality has a significant effect on user satisfaction" is accepted. The service quality has a positive coefficient direction. This is in line with research conducted by Kutlu and Alkaya which states that the service quality has a positive effect on user satisfaction [23]. Service quality is important in internet environment especially in this research that is internet banking. The quality of services in this study is seen from the timely provision of services, immediate response to customer inquiries, the provision of professional services, and the provision of personalized services. If banks can improve the quality of their internet banking services, then the level of customer satisfaction will increase. Internet banking system users are customers, not employees or internal users of the organization (banking companies). Therefore, poor service quality support will result in reduced or even loss of customers using internet banking services. Based on the results of statistical tests, it can be seen that customer assessment of the service quality has a positive effect on the satisfaction of internet banking usage. In other words, if the higher the customer assessment on the quality of internet banking service, then the satisfaction of internet banking usage is getting higher. The results of this research are also in line with research conducted by Nwone [34].

Based on the statistical results, the significance value of the perceived usefulness is ***(very small value) with the estimated value of 0.298. The probability of significance is not greater than 0.05. This shows that the perceived usefulness has an influence on user satisfaction. Therefore, hypothesis 4 (H4) in the research that states "perceived usefulness has a significant effect on user s   atisfaction" is accepted. The perceived usefulness has a positive coefficient direction.

This is in line with research conducted by Alsamydai, et al. which states that the perceived usefulness has a positive effect on user satisfaction [14]. Perceived usefulness is defined as the extent to which a person believes that using a technology will be useful in improving the performance of his work. Assessment of usability perceptions used in this research include can increase banking activity, can manage banking activities more efficiently, can finish banking activities conveniently, can complete banking activities more quickly, useful for carrying out banking activities, and more advantageous than branch banking. Based on the results of statistical tests, it can be seen that customer assessment of the perceived usefulness has a positive effect on the satisfaction of internet banking usage. In other words, if the higher the customer assessment on the perceived usefulness of internet banking, then the satisfaction of internet banking usage is getting higher. The results of this research are also in line with research conducted by Tsai et al. [26].

Based on the statistical results, the significance value of the user satisfaction is ***(very small value) with the estimated value of 0.417. The probability of significance is not greater than 0.05. This shows that the user satisfaction has an influence on continuance intention. Therefore, hypothesis 5 (H5) in the research that states "user satisfaction has a significant effect on continuance intention" is accepted. The user satisfaction has a positive coefficient direction. This is in line with research conducted by Ofor, et al. which states that the user satisfaction has a positive effect on continuance intention [27]. User satisfaction is the user's response to the use of information systems output. The information system discussed in this research is internet banking where the user is the customer. User satisfaction assessment used in this research include customer satisfaction on internet banking in fulfilling the needs and information, customer satisfaction on the effectiveness and efficiency of internet banking, and overall customer satisfaction on internet banking. Based on the results of statistical tests, it can be seen that customer assessment of the user satisfaction has a positive effect on the continuance intention to use internet banking. In other words, if the higher the customer assessment on satisfaction of internet banking usage, then the continuance intention to use internet banking is getting higher. The results of this research are also in line with research conducted by Tsai et al. [27].

Based on the statistical results, the significance value of the perceived usefulness is 0.004 with the estimated value of 0.240. The probability of significance is not greater than 0.05. This shows that the perceived usefulness has an influence on continuance intention. Therefore, hypothesis 6 (H6) in the research that states "perceived usefulness has a significant effect on continuance intention" is accepted. The perceived usefulness has a positive coefficient direction. This is in line with research conducted by Tsai et al. which states that perceived usefulness has a positive effect on continuance intention [27]. Based on the results of statistical tests, it can be seen that customer assessment of the perceived usefulness has a positive effect on the continuance intention to use internet banking. In other words, if the higher the customer assessment on the perceived usefulness of internet banking, then the continuance intention to use internet banking is getting higher. The results of this research are also in line with research conducted by Alsamydai, et al. [14].

Based on the statistical results, the significance value of the subjective norms is 0.001 with the estimated value of 0.162. The probability of significance is not greater than 0.05. This shows that the subjective norms have an influence on continuance. Therefore,

hypothesis 7 (H7) in the research that states "subjective norms have a significant effect on continuance intention" is accepted. The subjective norms have a positive coefficient direction. This is in line with research conducted by Rahmath et al. which states that perceived usefulness has a positive effect on continuance intention [17]. Subjective norms are the perceptions or views of a person against the beliefs of others that will influence the interest to do or not to do the behavior under consideration. Assessment of subjective norms used in this study include encouragement from people important to customers, influential people to customers, and people whose opinions are valued by customers to use internet banking [35-38]. Based on the results of statistical tests, it can be seen that customer assessment of the subjective norms has a positive effect on the continuance intention to use internet banking. In other words, if the higher the customer's assessment of the subjective norms or if the higher the encouragement from the people who are referenced by the customers to use internet banking, then the continuance intention to use internet banking is getting higher. The results of this research are also in line with research conducted by Al-Ajam and Nor [39].

Conclusion

Based on the results and previous discussion, it can be concluded that the information quality has no significant effect on user satisfaction. While the system quality, service quality, and perceived usefulness have a significant positive effect on user satisfaction. It means, if internet banking that has the high assessment of system quality, service quality, and perceived usefulness, then the customer satisfaction of internet banking is high. In addition, user satisfaction, perceived usefulness, and subjective norms have a significant positive effect on continuance intention. It means if customer's assessment of user satisfaction, perceived usefulness, and subjective norms on internet banking is high, then the intention of customers to continue using internet banking is high. Good quality internet banking will give customers satisfaction. Customer satisfaction with internet banking that they use will bring continuance intention to customers to use internet banking system. Customers who believe that internet banking is useful then customers will feel satisfied and will use internet banking is continuously. In addition, people who are used as references by customers play a role in encouraging customers to continue to use internet banking. The sustainability of internet banking usage will benefit both the customers and the banking companies and support the Gerakan Nasional Non Tunai program.

Recommendation

Based on the research that has been done, there are some suggestions for further research that is to use or to add other factors outside the model that may affect user satisfaction and continuance intention. Further research is recommended to use the research object of all internet banking services with a wider scope, such as throughout Indonesia or with other information system objects. Banking companies are recommended to upgrade and develop their internet banking services by providing new services and innovations that provide convenience for customers in their banking activities.

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