
An Analysis of Customer Intention In Using Internet Banking

Astri Ayu Purwati¹, Farenc Libara², Muhammad Luthfi Hamzah³

Abstract:

Internet has been widely used in various business fields. The function of Internet in this modern era is not only for giving information but it also handle banking transactions anytime and anywhere without being limited by time and distance. This study aims to determine and analyze the influence of Perceived Value, Perceived Ease of Use and Perceived Risk to Customer intention to use Internet Banking. The respondents in this study were 100 respondents who visited BCA KCP A.Yani Pekanbaru. The data analysis technique used is multiple linear regression analysis using the t test and F test for hypothesis testing. The results of this study indicate that not all variables are influential, in Perceived Ease of Use there is no influence, while the variables of Perceived Value and Perceived Risk have an influence on customer intention. The variables of Perceived Value and Perceived Risk have a significant effect, while Perceived Ease of Use variables that do not significantly influence customer intention for using Internet Banking.

Keywords : *Perceived Value, Perceived Ease of Use, Perceived Risk, Customer Intention*

¹Institut Bisnis dan Teknologi Pelita Indonesia, Management Department,
astri.ayu@lecturer.pelitaindonesia.ac.id

²Institut Bisnis dan Teknologi Pelita Indonesia, Management Department,
fareerencelee@gmail.com

³ Universitas Islam Negeri Sultan Syarif Kasim Riau, Information System Department,
muhammad.luthfi@uin-suska.ac.id

1. Introduction

Banking is one of the sectors that follows the development of information technology. Large banks in Indonesia have now implemented online-based services, one of which is BCA (Bank Central Asia). In order to facilitate banking access for its customers, BCA presents an online-based service or Internet Banking where banking services are accessed using electronic media such as computers, laptops and mobile phones as intermediaries supported by internet connections. The benefits of Internet Banking can not only be felt by customers, but also for the bank itself. During this time, transactions that are run manually often experience errors or Human Errors caused by both the bank and the customer. Reduced transactions manually have an impact on bank expenditure, for example the cost of printing the transaction slip. The less manual transactions, the use of transaction slippage will also be reduced. In addition, with the reduction in manual transactions, there will be less labor needed by banks to carry out customer transactions (Kuo et al., 2009). So that labor costs and bank building rental costs can also be minimized.

The transition of the community towards Cash Less Society is an opportunity for banks to improve their services, bearing in mind that at present the community tends to reduce the carrying of cash and require banking services with effective and efficient technology in its activities. But what happened in the community did not go as expected, because there were still many people who did not use Internet Banking. Based on the results of a survey conducted by the Indonesian Internet Providers Association (APJII) in 2016 regarding the technical payment for online transactions, it was found that the use of banking services in online transactions is still small when compared to transactions through ATM machines and in Cash on Delivery (COD) (APJII 2016).

The perception of the difficulty of transacting through Internet Banking is an obstacle for customers, especially for customers who are still unfamiliar with the current technological sophistication. In addition, security in dealing with online-based services is also a consideration for customers. In this case, the company needs to provide information about its products so that customers can change their perceptions and give positive responses to Internet Banking services.

In a study conducted by Kuo et al. (2013) perceived value gives a positive and significant influence on individual intention in a product. Good values of a product will increase one's intention in using the product / service offered. However, it is different from the results of research conducted by Eggert & Ulaga (2002) where the results of the study indicate that perceived value has a positive but not significant effect. The perceived value of a person can be considered but not the main factor that determines one's intention in a product.

Perceived ease of use refers to one's belief that information technology systems do not require a great effort in its operation. Based on research results from Guriting &

Ndubisi (2006); Gu et al., (2009) show that perceived ease of use of Internet Banking has a significant influence on customers' intention in using it. The easier it is to use Internet Banking, the higher the intention in using it. However, research conducted by Vijayasathay (2006) shows different results. In his research, it was found that perceptions of convenience did not have a significant effect on customer intention in using Internet Banking.

Perceived Risk is an anticipation from someone of negative consequences related to the use of a service. Risk perception is a negative perception in using a product / service that leads to negative results and the possibility of these results will be real. The concept of risk perception has a relationship with a number of risks that can arise from using a service. A person's interest is largely determined by each individual's perception of what risks he will face and how important their influence. Risk perception has a significant positive effect on customer intention in using Internet Banking by research conducted by Martins et al., (2014) and Corbitt et al. (2003). However, research conducted by Zhou et al., (2007) shows that the perceived risk have a significant negative effect on customer interest in using Internet Banking services.

2. Theoretical Background

2.1 Perceived Value

Perceived value refers to consumer evaluation of a product or service. For consumers the benefits received from a product or service is the most important component in the value received by consumers. According to Kotler & Keller (2009) perceived value is the assessment of potential consumers of all the benefits and costs of an offer to its alternatives. Consumer perceived value is an overall consumer assessment of the utility of a product or service based on its perception of what is received and what is given from the product or service. The value felt by consumers according to Firmawan Gallarza & Saura (2006) is a value based on the difference between what consumers get and what is given for different possible choices. Consumers tend to maximize value in limiting search costs, knowledge, mobility and income.

Boksberger & Melsen (2011) explains that consumers view a product or service by its value. Value for the customer in question can be in the form of product value, service value, employee value and image value. Good judgment is not from the service provider perspective, but from the customer's perspective. Customer ratings in this perspective are relative. Perceived value is an overall consumer assessment of the benefits of a product or service, service quality, price, emotional and social value based on perceptions about what is received and given by consumers (Merle et al., 2011). It was stated by Merle et al., (2011) that there are three indicators to measure the perceived value, including: (1) Ease of Transaction (2) Safeguarding privacy (3) Payment and Shipping Security.

2.2 Perceived Ease of Use

Perceived Ease of Use is the level of user confidence that the technology or system can be used easily and free of problems. Easy transactions using an application can affect someone's interest to use the application. The more difficult the operation of the system, the less the intention to use it. According to Kanchanatane et al., (2014) perceived ease of use is defined as a degree when someone believes that using technology will make someone free from effort. Even though the user experience is very minimum towards the application, the user will still be able to operate the application properly. Perceived ease of use according to Featherman et al., (2016) is a person's belief when using a technology that the technology is easy to use and understand so that users do not feel heavy when new technologies emerge.

Kanchanatane et al., (2014) provides several indicators of ease in using an information technology system, namely: (1) Information technology is very easy to learn. (2) Information technology does very easily what the user wants. (3) User skills will be increased by using information technology. (4) Information technology is very easy to operate.

2.3 Perceived Risk

Perceived risk is defined as a person's perception of uncertainty and disappointing consequences when buying or using a product or service. Perceived risk is the belief in individual subjectivity that there is some probability that an undesired outcome will be received from a particular choice. Risk perception according to D'Alessandro et al., (2012) is interpreted as a subjective assessment by a person of the likelihood of an accident and how worried the individual is about the consequences or impacts of the event.

D'Alessandro et al., (2012) explained that the lower the level of risk perceived by someone, the higher the level of interest that can arise towards a product or service. The low level of risk perceived by an individual will form a positive attitude towards the product or service. An unsatisfactory experience that someone has experienced with a product or service can cause the individual to feel the risk so that interest in a product or service is reduced.

Risk perception can be defined as the uncertainty experienced by consumers when they are unable to see the possibility of things that will occur when making a decision. It was stated that in measuring risk perception there were several indicators that were considered, namely: (1) Product Quality (2) Price (3) Personal Information (4) Time (5) Convenience (Suhir 2014).

2.4 Conceptual Framework

Based on a review of the theoretical basis and previous research, a framework of thought in this study can be arranged as presented in the picture as follows:

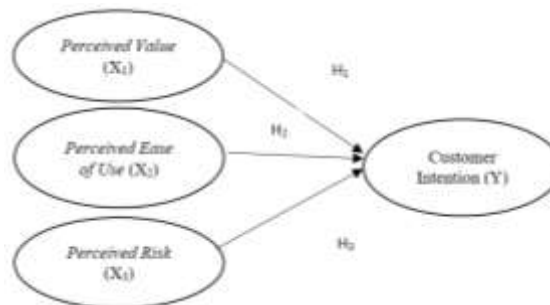


Figure 1. Conceptual Framework

3. Methodology

This research was conducted on customers who transact at BCA Bank A.Yani Sub-Branch Office, Pekanbaru city with a total of 500 people. The number of samples in this study determined using the Slovin Formula where the number of sample in this study is as many as 100 people with an error rate of 10%. The technique sampling used in this study is Simple Random Sampling, which in this sampling technique, all individuals in the population either individually or together are given the same opportunity to be selected as sample members. Data analysis techniques used in this research are descriptive analysis of respondents and multiple regression analysis using SPSS.

4. Empirical Findings/Result

4.1 Result of respondent characteristics

Majority respondents in this study were female, with 55 people (55%) and 45 men (45%). For the age of, majority respondents in this study were people aged 22-26 years, namely as many as 41 people (41%), followed by respondents aged 27 - 31 years as many as 23 people (23%), then by respondents aged 17-21 20 people (20%) and respondents over 31 years of age are 16 people (16%). Most respondents' occupations in this study were 46 employees (46%), followed by 23 students (23%), 19 employees (19%), 7 doctors (7%) as doctors. Housewives of 3 people (3%) and Civil Servants of 2 people (2%). Respondents in this study who have used BCA Internet Banking for less than 3 years amounted to 46 people (46%), who used BCA Internet Banking for 3 years as many as 16 people (16%) and respondents who had used BCA Internet Banking for more than 3 years year totaling 38 people (38%).

4.2 Result of Validity Test

All measurement items for the variable Value Perception (X1), Ease Perception (X2), Risk Perception (X3) and Interest (Y) have a correlation value greater than 0.30. Thus the statement items on the variables X1, X2, X3, and Y have been valid for further testing.

4.3 Result of Reliability Test

Reliability Test on the variables of Perception of Value, Perception of Ease, Perception of Risk and Interest obtained results that each variable has a reliability

value that is in the number ≥ 0.6 . Thus all variables in this research instrument are reliable.

4.4 F Test

The criteria for testing this simultaneous hypothesis is that if $F_{count} < F_{table}$ with $\alpha = 5\%$, then H_0 is accepted and H_1 is rejected. If $F_{count} > F_{table}$, then H_0 is rejected and H_1 is accepted. Simultaneous test results can be seen in the table below:

Table 1. F Test

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	45,793	3	15,264	63,564	0,000
Residual	23,054	96	0,240		
Total	68,847	99			

Source : Author

From the results of simultaneous testing, the F_{count} result was 63,564, while the F_{table} value was 4.83 ($f_{0.01} (3-1) (100-3)$). This means that $F_{count} > F_{table}$ and significant value $0,000 < \alpha 0.05$. Thus H_0 is rejected and H_1 is accepted which means that Value Perception, Ease Perception and Risk Perception simultaneously influence the customer intention in using Internet Banking. In other words, this research model deserves to be good.

4.5 Coefficient of Determination (R^2)

The coefficient of determination (R^2) is used to explain the proportion of variation in the dependent variable explained by the independent variable together.

Table 2. R Square test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0,816	0,665	0,655	,49004	1,867

Source : Author

From the table above shows the R^2 value of 0.655. This shows that the Interest variable is explained by the Value Perception, Ease Perception and Risk Perception variables by 65.5%, while 34.5% is explained by other variables not examined.

4.5 Hypotesis test

To prove the hypothesis about the existence of a positive influence between the variables Perceived Value, Perceived Ease of Use and Perceived Risk to Intention to use Internet, then using Multiple Linear Regression analysis with t test showed in the table as follows:

Table 3. T Test

	t-hitung	t-tabel	Sig.
(Constant)	-0,928		0,356
X1	3,766	2,366	0,000***
X2	0,644	1,290	0,521*
X3	3,870	2,366	0,000***

Source : Author

*** = sig 1%, * = sig 10%

From the table above, the partial test results can be explained as follows: (1) The test results show that the tcount for the Perception variable Value of 3.766 is greater than the table 2.366 (t0.01 (100-3-1)) or significant value 0,000 is smaller than $\alpha = 0.01$. Which means that H0 is rejected and H1 is accepted, it can be concluded that Value Perception significantly influences the Interest in using Internet Banking. (2) The t test results show that the tcount for the Perceived ease of use variable is 0.644 smaller than t table 1.290 (t0.01 (100-3-1)) or a significant value of 0.521 is greater than $\alpha = 0.01$. Which means H0 is accepted and H1 is rejected. Then it can be concluded that perceived ease of used does not significantly influence interest in using Internet Banking. (3) The t test results show that the tcount for the Risk Perception variable of 3.870 is greater than the table 2.366 (t0.10 (100-3-1)) or a significant value of 0.000 is smaller than $\alpha = 0.01$. Which means H0 is rejected and H1 is accepted. It can be concluded that Risk Perception has a significant effect on interest in using Internet Banking.

5. Discussion

From the results of the descriptive analysis shows that the Perceived Value is a factor that is considered good by the respondents regarding Interest. This is in line with the results of the regression analysis and partial testing (t test) of the Value Perception variable which has a positive and significant value. This means that it can be partially stated that the Value Perception variable significantly influences the intention in using Internet Banking. In a previous study conducted by Kuo et al., (2009) showed that perceived value perceived by a person had a significant positive effect on intention in using products. This shows the similarities that occur between previous research with current research, where the perceived value (Perceived Value) that someone feels about a product or service can affect their interest in the product or service offered. A good assessment of a product or service will increase one's interest in buying or using it. The higher one's knowledge of the perception of the value of a product or service, the higher the level of one's interest in the product or service offered.

The results of the descriptive analysis shows that Perceived Ease of Use is a factor that is considered good by respondents of Interest. However this is not in line with the results of the regression analysis and partial testing (t test) of the Ease Perception variable which has a negative value and is not significant. This means that it can be partially stated that the Ease Perception variable does not significantly affect the

intention in using Internet Banking. In a previous study conducted by Gu et al., (2009) showed similar results where the Perceived Ease of Use did not have a significant influence on the intention on customer in using internet banking. Perceived Ease of Use will provide a view of convenience for customers to make transactions through Internet Banking with the flexibility of time and place because it can be done anytime and anywhere.

Lastly, the results of the descriptive analysis shows that Perceived Risk is a factor that is considered good by the respondent of Interest. This is in line with the results of the regression analysis and partial testing (t test) on the risk perception variable which has a positive and significant value. This means that it can be partially stated that the Risk Perception variable significantly influences the intention in using Internet Banking. In a previous study conducted by Zhu et al., (2007) also showed similar results, where Perceived Risk significantly affected customers' intention in using Mobile Banking. The risk perceived by someone becomes a reflection of the uncertainty felt by someone about their inability to accept the possibilities that occur when using a product or service.

6. Conclusions

The conclusions that can be drawn from this research are: (1) Perceived Value has a significant positive effect on customers' intention in using Internet Banking. Bank BCA needs the right strategy to instill good values in the eyes of customers. (2) Perceived Ease of Use has no significant effect on customers' intention in using Internet Banking. Therefore, if BCA Bank increases the ease of use of Internet Banking, it will not have a significant effect. (3) Perceived Risk has a significant positive effect on customers' intention in using Internet Banking. By improving the security system in transactions, BCA customers will feel more confident when using each of BCA's products and services.

References:

- Boksberger, P. E., & Melsen, L. (2011). Perceived value: a critical examination of definitions, concepts and measures for the service industry. *Journal of services marketing*.
- Corbitt, B. J., Thanasankit, T., & Yi, H. (2003). Trust and e-commerce: a study of consumer perceptions. *Electronic commerce research and applications*, 2(3), 203-215.
- D'Alessandro, S., Girardi, A., & Tiangsoongnern, L. (2012). Perceived risk and trust as antecedents of online purchasing behavior in the USA gemstone industry. *Asia pacific journal of marketing and logistics*.
- Eggert, A., & Ulaga, W. (2002). Customer perceived value: a substitute for satisfaction in business markets?. *Journal of Business & industrial marketing*.

- Featherman, M. S., Miyazaki, A. D., & Sprott, D. E. (2010). Reducing online privacy risk to facilitate e-service adoption: the influence of perceived ease of use and corporate credibility. *Journal of Services Marketing*.
- Guriting, P., & Ndubisi, N. O. (2006). Borneo online banking: evaluating customer perceptions and behavioural intention. *Management research news*.
- Gu, J. C., Lee, S. C., & Suh, Y. H. (2009). Determinants of behavioral intention to mobile banking. *Expert Systems with Applications*, 36(9), 11605-11616.
- Gallarza, M. G., & Saura, I. G. (2006). Value dimensions, perceived value, satisfaction and loyalty: an investigation of university students' travel behaviour. *Tourism management*, 27(3), 437-452.
- Kuo, Y. F., Wu, C. M., & Deng, W. J. (2009). The relationships among service quality, perceived value, customer satisfaction, and post-purchase intention in mobile value-added services. *Computers in human behavior*, 25(4), 887-896.
- Kanchanatane, K., Suwanno, N., & Jarernvongrayab, A. (2014). Effects of attitude toward using, perceived usefulness, perceived ease of use and perceived compatibility on intention to use E-marketing. *Journal of Management Research*, 6(3), 1.
- Martins, C., Oliveira, T., & Popovič, A. (2014). Understanding the Internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application. *International Journal of Information Management*, 34(1), 1-13.
- Merle, A., Chandon, J. L., Roux, E., & Alizon, F. (2010). Perceived value of the mass-customized product and mass customization experience for individual consumers. *Production and operations management*, 19(5), 503-514.
- Vijayasarathy, L. R. (2004). Predicting consumer intentions to use on-line shopping: the case for an augmented technology acceptance model. *Information & management*, 41(6), 747-762.
- Zhou, L., Dai, L., & Zhang, D. (2007). Online shopping acceptance model-A critical survey of consumer factors in online shopping. *Journal of Electronic commerce research*, 8(1).