

UDC 332

ANTECEDENTS OF ATTITUDES AND CONSEQUENCES ON INTENTIONS TO USE BCA M-BANKING IN DENPASAR

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ABSTRACT

This study aims to explain the effect of perceived usefulness, perceived ease of use, perceived risk and perceived cost on the intention to use a M-Banking. The product under study is a service from a bank in Indonesia, namely mobile banking from Bank Central Asia (BCA). BCA is one of the private banks in Indonesia. This study uses 4 exogenous variables, consist of perceived usefulness, perceived ease of use, perceived risk and perceived cost, attitude as a mediating variable, and intentions to Use BCA's M-Banking as endogenous variable,. The population in this study are BCA consumers in Denpasar who have not used M-Banking facilities. The samples taken were 110 samples. The sampling method used in this research is purposive sampling method. The instrument of data collection was using a questionnaire. This study uses SEM-PLS analysis using SmartPLS 3.0. The results of the analysis show that perceived usefulness, perceived ease of use, perceived risk and perceived cost have a positive and significant effect on the attitude of using M-Banking BCA and The attitude have a positive and significant effect on intention to use BCA mobile banking. The attitude is able to mediate the relationship between perceived usefulness, perceived ease of use, perceived risk and perceived cost with the intention to use BCA mobile banking. The theoretical implications of this research are expected to add to empirical results in the field of information systems, especially in terms of perceived usefulness, perceived ease of use, perceived risk, perceived cost, and attitudes towards the intention to use mobile banking. The practical implications of this research are expected to be able to add information for system designers and company management for banking institutions to be able to consider the effect of these variables on the intention to use mobile banking.

KEY WORDS

Perceived usefulness, perceived ease of use, perceived risk, perceived cost, attitude, intention to use.

In this era with the support of technological development, human information needs become increasingly complex. Companies must pay attention to the progress of information technology and further optimize information technology facilities to survive and win the market in world trade. Current technological developments have facilitated all aspects of business activities. The rapid progress and development of information technology has affected the banking industry just as mobile banking is a manifestation of the development of this technology. Communication equipment is an example of the technological development currently used in the banking industry. Today, many banks provide mobile access to find financial information. This situation is one of the improvements in customer service, due to in reality, every customer needs at least ten minutes to queue when making a bank transaction. If customer time and business opportunities are only used for transactions at the bank, this often has an adverse effect on the customer.

This technological development is also anticipated by companies, both providers of goods and services. New breakthroughs must be designed thus that they can continue to grow and compete at least maintain their existence. Bank Central Asia (BCA) as one of the banking institutions in Indonesia is very aware that services to customers must also adapt to technological advances, meaning that by touching on technology, BCA will still be able to compete. Therefore, on October 11, 2001, BCA launched a mobile banking service under the name m-BCA.

Along with technological developments in the current digital era, other banks and even institutions other than our bank have made new advances in the field of online banking or virtual wallets and have become the most powerful competitors of the banking services themselves to mobile banking facilities. Services like GoPay, OVO, and other banks' online banking facilities may be competitors to BCA's own M-Banking app. Therefore, it is very important for BCA to innovate in improving their M-Banking facilities thus that customers can be comfortable without resorting to other online banking products.

According to the TOP Brand Award, it can be seen that BCA's M-Banking continues to occupy the first position in the M-Banking category, but its proportion is declining year by year. In 2015, M-BCA's TBI was 54.2 percent, but in 2016 it dropped by 5.8 percent to 48.4 percent, and in 2019 it further dropped by 9.7 percent to 44 percent. However, in 2020, BCA's M-Banking has once again increased to 45.5 percent. However, compared with the 2015 TBI, there is still a decline. The overall decline in the brand index of M- BCA and BCA has failed to occupy the first position in the E-Banking category. This has led researchers to be interested in doing research on things that may affect the willingness to use M-Banking BCA. Therefore, in August 2020 A pre-survey was conducted this month to understand what factors affect the willingness to use mobile banking with a simple survey was conducted with 20 interviewees.

Based on the results it can be concluded that respondents have an intention to use M-Banking services based on the answers to the questions "I intend to use mobile banking services for transactions in the future", "I need to manage my account anytime and anywhere", and "I have the necessary resources to use mobile banking services" where the three questions received a 100 percent agree response percentage. Most of the answers that did not agree were asked for the question "The costs incurred in using Mobile Banking Services are not a problem for me" where those who answered disagreed > 50 percent of respondents. This indicates that customers take into account costs as a variable that can affect the intention to use Mobile Banking, this question represents the perceived cost variable. Two other questions that received a lot of disapproval answers were "My friends and family consider the use of mobile banking to be important", and "I have the necessary knowledge to use mobile banking services." This question represents the variables perceived usefulness and perceived ease of use. Research on technology acceptance behavior refers to the Technology Acceptance Model (TAM) developed by Davis et. al., (1989). This model uses four main constructs consisting of perceived usefulness, perceived ease of use, attitude toward behavior or attitude toward using technology, and behavioral intention by Davis (1989). Shanmugam et. al., (2014) stated that perceived usefulness has a positive effect on behavioral intentions to use mobile banking in Malaysia. Mangin et. al., (2012) stated that there is a significant positive relationship between perceived usefulness and intention to use online banking in North America. Sentosa et al. (2012) stated the intention to use internet banking in Malaysia, due to perceived usefulness has a positive and significant relationship with intention.

Consumer attitudes can also be a mediator when consumers make decisions. Shanmugam et al. (2014) which states that attitudes towards the use of mobile banking mediate the relationship between perceived usefulness and behavioral intentions to use mobile banking in Malaysia. Likewise with the research of Hosseini et. al., (2015) stated that perceived usefulness has a positive relationship with the intention to use M-Banking mediated by attitudes towards M-Banking. Kanchanatanee et. al., (2014) stated that attitudes have direct and indirect effects between perceived usefulness and intention to use e-marketing . Gunawan (2014) also mentions that perceived usefulness has an indirect positive effect on interest through attitudes.

There are a number of researchers who reveal the analysis of the influence of usability, convenience, risk and service quality on interest in using mobile banking. The results showed that perceived benefits, perceived ease of use and experience had no significant effect on the behavior of using mobile banking for Bank BCA customers in Surabaya (Pratiwi, 2012). Due to the three independent variables, only the perceived benefit significantly affects the behavior of using mobile banking. Further conducted by Mubiyantoro and Syaefullah (2014)

shows that the constructs of perceived ease of use and perceived suitability have an effect on attitudes to using mobile banking services. On the other hand, the constructs of perceived usefulness and perceived risk have no effect on attitudes towards the use of mobile banking services.

LITERATURE REVIEW

Theory Reasoned Action

The Theory of Reasoned Action (TRA) describes behavior that changes based on the outcome of behavioral intentions, and behavioral intentions are influenced by social norms and individual attitudes toward behavior (Eagle, Dahl, Hill, Bird, Spotswood, and Tapp, 2013, p. 123). According to (Lee & Kotler, 2011, p. 198), the theory of reason action developed by Ajzen and Fishbein, states that the best prediction of a person's behavior is based on that person's interests. Behavioral interest is based on two main factors consisting individual belief in the results of the behavior carried out and individual perceptions of the views of those closest to the individual on the behavior carried out.

Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) was developed by Davis in 1989, as a model for user acceptance of an information system. In accordance with TAM, actual system usage is most influenced by behavioral intentions toward usage. Behavioral intentions toward usage are influenced by two beliefs consisting the user's perception of the benefits (perceived usefulness) and the user's perception of the ease (perceived ease of use). Perceived usefulness is defined as the degree to which a person believes that using a particular system can improve their performance, and perceived ease of use is defined as the level at which a person believes that using the system does not require any effort (free of effort). Perceived ease of use also affects perceived usefulness which can be interpreted that if someone feels the system is easy to use then the system is useful for them.

The basic TAM model as developed by Davis is illustrated in the following figure:

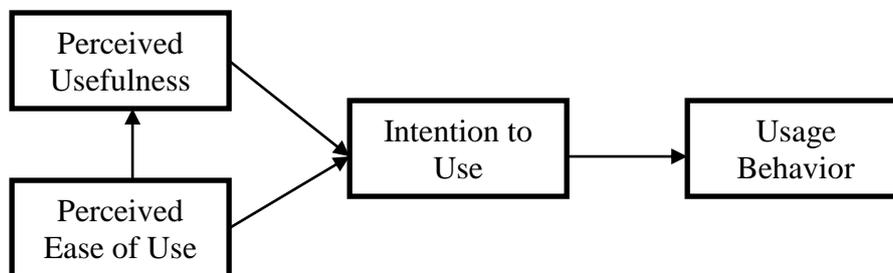


Figure 1 - Technology Acceptance Model (Source: Davis, 1989)

Consumer Attitude

Attitudes can be measured by the method of summated ratings. This method is an attitude statement scaling method that uses the response distribution as the basis for determining the scale value (Azwar, 2011). The scale value of each statement is not determined by the degree of favorability of each, but is determined by the distribution of agree and disagree responses from a group of respondents who act as a pilot study. It can be concluded that consumer attitudes are consumer responses to a brand that can consistently influence buying behavior. The indicators in this study refer to the opinion of Schiffman and Kanuk (2004) which includes cognitive components, affective components and conative components.

Perceived Usefulness

Perceived usefulness can be defined as the degree to which a person believes that using a technology/system will improve their work performance (Davis et. al., 1989).

Perceived usefulness refers to the user's perception of the benefits of the technology used. Perceived usefulness is defined as the usability of a technology so that if the usefulness of a technology is in doubt, someone's intention to use it will not appear. Perceived Usefulness in this study were measured with positive values using the smallest five-point Likert scale consisting one (strongly disagree) to five (strongly agree). The concept of perceived usefulness according to Chin and Peter (1991) can be grouped into two categories consisting perceived usefulness with one factor estimation and perceived usefulness with two estimators.

Perceived Ease of Use

David (1989) defines the perceived ease of use is a person's level of confidence that the computer can be easily understood. The level of one's belief that the use of information systems is easy and does not require hard work from the wearer. This convenience will reduce energy, thought and time used to learn and use information systems. People who work with information systems work easier than people who work manually without information systems. Perceived ease of use in this study were measured with a positive value using a five-point Likert scale, namely the smallest one (strongly disagree) to five (strongly agree). The indicator measure of the Perceived Ease of Use is the ease of learning, doing the desired job easily, easy to improve user skills and easy to use/operate.

Perceived Risk

One very important concept related to perceived risk is that the risk perceived by a consumer, both its existence and its magnitude, is something that is very subjective. The same buying situation, when faced with two different people, can produce different perceptions of risk. Perceived risk in this study were measured with a positive value using a five-point Likert scale, namely the smallest 1 (strongly disagree) to 5 (strongly agree). The perceived dimensions of risk according to Liao Xio in (Yusnidar et. al., 2014) are Financial Risk, Social Risk, and Performance Risk. Time and Convenience Risk and Physical Risk.

Perceived Cost

According to Malik, Yaqoob, and Aslam (2012), price perception is the process by which consumers interpret price and attribute value to a good or service. Price perception concern how price information is comprehended by consumers and made meaningful to them (Peter and Olson, 2010). This means how the customer understands the pricing information and makes sense to the customer. Perceived risk in this study were measured with a positive value, namely the smallest one (strongly disagree) to five (strongly agree). Perceptions of prices are measured and represented by two indicators. The measurement of price perception is formed by two indicators. Attractiveness, is how consumers think about the price offered whether it is attractive or not and fairness, is how consumers think about the price offered whether it is fair or not when compared to another price offers (Schiffman and Kanuk, 2000).

Usage Intention

Intention is a strong tendency or desire in individuals to perform certain behaviors. Intention is an indication of how strong the individual's desire to realize a behavior is, in other words, the stronger the individual's desire, the more likely a behavior is realized (Sumarwan, 2011). The answers in this variable were measured with a positive value using a five-point Likert scale consisting the smallest one (strongly disagree) to five (strongly agree). Purchase intention can be identified through the following indicators, namely transactional, referential, and exploratory (Ferdinand, 2002).

Hypothesis Research

- H_1 : Perceived usefulness has a positive and significant effect on the attitude of using M-Banking;
- H_2 : Perceived Ease of Use has a positive and significant effect on the attitude of

- using M-Banking;
- H₃ : Perceived Risk has a positive and significant effect on the attitude of using M-Banking;
 - H₄ : Perceived Cost has a positive and significant effect on the attitude of using M-Banking;
 - H₅ : Attitude has a positive and significant effect on the intention to use M-Banking.

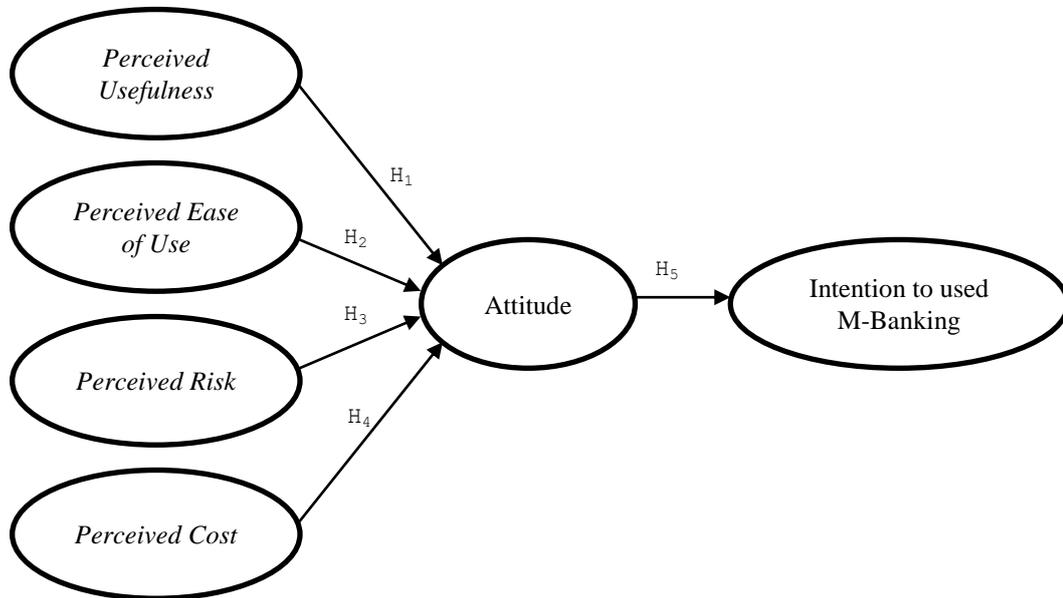


Figure 2 – Research Concept Framework

METHODS OF RESEARCH

This study adopts a quantitative method and is a correlation study due examines the influence of perceived utility, perceived ease of use, perceived risk, and perceived cost on attitudes towards using BCA's M-Banking. The population in the research used is customers who have never used M-Banking facilities. The sample size used in research is five -10 times or more than the number of variables or indicators in a study (Sekaran et al., 2016). This study uses 22 indicators thus using the above estimates obtained a sample size of 110 samples. The sampling technique in this study used nonprobability sampling with a purposive sampling approach. The data collection method in this study was a survey by filling out questionnaires by respondents using google form. The measurement scale used is the five Likert scale. The questionnaire has been tested for validity and reliability with the results of the Average Variance Extracted (AVE) value and the outer loading value ≥ 0.5 for all variables. Cronbach's alpha and composite reliability values are greater than 0.8 and 0.7 for all variables used. This states that the questionnaire used is valid and reliable.

RESULTS AND DISCUSSION

Characteristics of Respondents

The results of the test showed that dominated by female (65.5 percent) and the rest are male (34.5 percent). All respondents are customers of Bank Central Asia, with an age range of 17 to more than 61 years. The majority of respondents belonged to the age group of 17 – 27 years as many as 59 people (53.6 percent). Respondents who are included in the age of 28-38 years are 46 people (41.8 percent), respondents who are included in the age of 39-49 years are 2 people (1.8 percent) while the rest are aged 50-60 years as many as 3 people (2,7 percent). Most of the respondents had an education level of bachelor degree as many as 69 people (62.7 percent), while the rest had a junior high education level of 1 person (0.9

percent), senior high school as many as 10 people (9.1 percent), vocational education as many as 4 people (3.6 percent), post-degree as many as 25 people (22.7 percent), and doctoral degree as many as 1 person (0.9 percent).

Outer Model

Convergent validity can be verified based on average variance extracted (AVE) value for each variable. All value indicated higher than 0,5 which means all variables have fulfilled the convergent validity requirements.

Inner Model Test

Testing of the inner model or structural model is evaluated by using R-square for endogenous constructs. The attitude variable has an R-Square value of 0.958 or 95.8 percent. The value of 95.8 percent means that 95.8 percent of the variation in the attitude variable can be explained by the variables perceived usefulness, perceived ease of use, perceived risk, and perceived cost, while 4.2 percent is explained by other variables outside of this study. Based on the values, the model in this study is included in the moderate category (0.50 – 0.75). The R-Square value of the M-Banking intention variable is 0.552 or 5.2 percent. This is means 5.2 percent of the variation of the variable intention to use M-Banking can be explained by the variables of perceived usefulness, perceived ease of use, perceived risk, perceived cost, and attitude. while 44.8 percent explained by other variables outside this study.

Based on the calculations, the value of the Q-square amounted to 0,981, or 98,1 percent. This is means that at 98,1 percent variation of the variable intention ease of use M-Banking can be explained by all the variables in the model. While the remaining 1.9 percent is explained by other variables outside the research model. This result shows that the Q-Square value is close to 1 which indicates that the model has strong predictive relevance .

Hypothesis testing

Hypothesis testing is done by processing data using smartPLS 3.0 with bootstrapping test as shown in Figure 3.

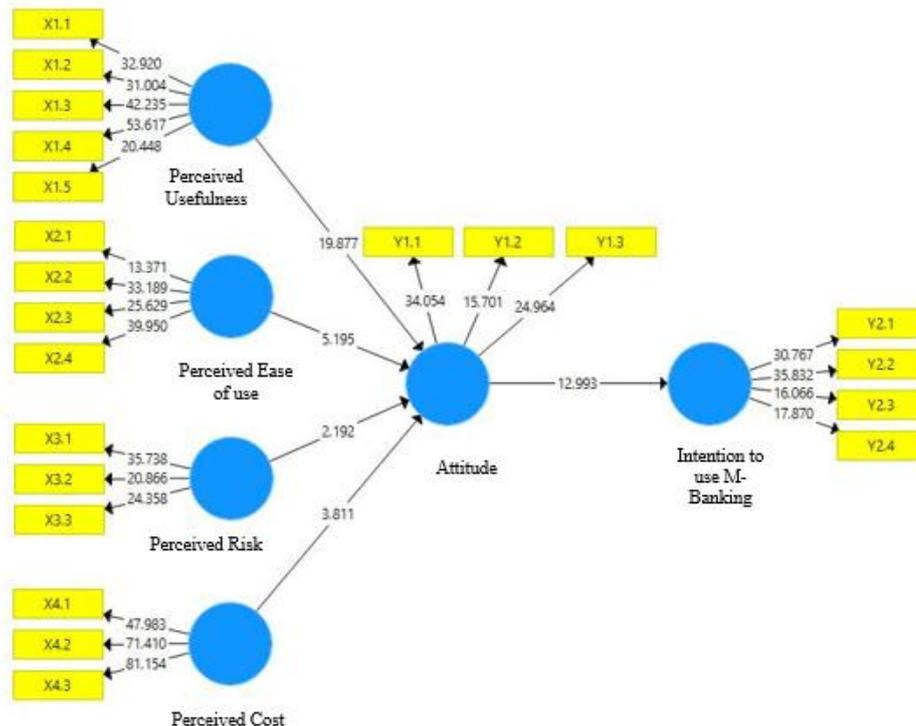


Figure 3 – Bootstrapping Test Results with SmartPLS 3.0

Table 1 and Table 2 shows the t-statistic value of all variables is greater than t-table and the p-value of 1.645 of all variables is smaller than the error/significance level of 0.05. Based on these data, all hypotheses in this study are accepted.

Table 1 – Direct Effect Testing Results

Variable	T Statistics (O/STDEV)	P Values	Remarks
Perceived usefulness (X ₁) -> Attitude (Y ₁)	19,877	0,000	H ₁ accepted
Perceived ease of use (X ₂) -> Attitude (Y ₁)	5,195	0,000	H ₂ accepted
Perceived risk (X ₃) -> Attitude (Y ₁)	2,192	0,029	H ₃ accepted
Perceived cost (X ₄) -> Attitude (Y ₁)	3,811	0,000	H ₄ accepted
Attitude (Y ₁) -> Intention to use M-Banking (Y ₂)	12,993	0,000	H ₅ accepted

Table 2 – Indirect Effect Testing Results

Variabel	T Statistics (O/STDEV)	P Values
Perceived usefulness (X ₁) -> Attitude (Y ₁) -> Intention to use M-Banking (Y ₂)	11,151	0,000
Perceived ease of use (X ₂) -> Attitude (Y ₁) -> Intention to use M-Banking (Y ₂)	5,142	0,000
Perceived risk (X ₃) -> Attitude (Y ₁) -> Intention to use M-Banking (Y ₂)	2,140	0,033
Perceived cost (X ₄) -> Attitude (Y ₁) -> Intention to use M-Banking (Y ₂)	3,775	0,000

The results shows that the customer's attitude is positively and significantly influenced by the perceived usefulness variable. Davis (1989) states that usefulness is a level where a person believes that the use of a particular subject will be able to improve that person's work performance. This finding supports the research of Shanmugam et al., (2014) and Abadi et. al., (2012) found that perceived usefulness has a positive effect on attitudes towards using mobile banking. Suki and Ramayah (2010) stated that the e-government system will improve user performance and productivity, supported by a significant influence between perceived usefulness on attitudes. Gunawan (2014) also explains that there is a significant direct effect of the perceived usefulness variable on attitudes.

Perceived ease of use had a positive and significant effect on customer attitudes. The results have support previous researchers who found that perceived ease of use had a significant effect on attitude toward behavior (Lin and Chang, 2011; Curran and Meuter, 2005; and Suh and Han, 2002). Al-Somali et. al., (2008) examined the factors that influence the adoption of internet banking using the Technology Acceptance Model (TAM) which took the subject in Saudi Arabia. Based on this research, the results show that perceived ease of use affects attitude toward using in internet banking use. The same results was also investigated by Chau and Lai (2003) which showed that perceived ease of use was positively related and had a significant effect on attitudes toward using internet banking .

Perceived risk had a positive and significant effect on customer attitudes. The results contradict those of previous research which found that perceived risk has a significant negative effect on attitudes toward behavior where every risk that is known by consumers from the decision to buy and use a product, will greatly determine their attitude towards a product (Curran and Meuter, 2005; and Abadi et al., 2012).

Perceived cost had a positive and significant effect on customer attitudes. this research is supported with another literature which indicated that price perceptions have a positive effect on consumer attitudes, because consumers' positive attitudes towards a product are influenced by product prices that are considered reasonable (Dodds, et. al., 1991; Burton, et al., 1998). The intention to use BCA mobile banking is significantly and positively influenced by customer attitudes. Another research supported which concludes the results that there is a positive influence between the attitude variables on behavioral intentions to use mobile banking (Shanmugam et. al., 2014; Suki and Suki, 2011; Marini, 2012, Mang in, et. al., 2012; and Prasetiani, et. al., 2011). Likewise, using internet banking has a significant direct effect on the attitude variable (Gunawan ,2014; Juwaheer and Ramdin, 2012)

The research proves that the attitude capable to mediate relationship between perceived usefulness, perceived ease of use, perceived risk and perceived cost with intention of use M-Banking mobile. attitudes affect the use of mobile banking, and are able to mediate the relationship between perceived usefulness and behavioral intentions to use

mobile banking in Malaysia (Shanmugam, et. al., 2014). Likewise perceived usefulness has a positive relationship with intentions to use mobile banking mediated by attitudes towards mobile banking (Hosseini et. al., 2015). Kanchanatane et al. (2014) shows that attitudes have direct and indirect effects between perceived usefulness and intention to use e-marketing.

Implications

The results of this research will add information to system designers and business managers of banking institutions thus that they can develop information systems by considering the influence of perceived usefulness, perceived ease of use, perceived risk, perceived cost, and attitudes towards the intention to use BCA's mobile banking. Also, this research has an impact on the attitude of respondents to the acceptance of mobile banking services. The more convenience and benefits provided by mobile banking services, the more positive the attitude of respondents, which ultimately increases the interest of respondents to use mobile banking services. Therefore, it is important for related companies to provide motivation to consumers in the form of socialization and invitations to use mobile banking and it is important for related companies to pay more attention and study more deeply about the development of consumer needs regarding banking services through mobile banking.

The factors that influence preferences in this study consist of four variables, namely perceived usefulness, perceived ease of use, perceived risk and perceived cost. While there are many other factors that influence consumer attitudes such as product quality and the level of privacy and security. Other limitations of research were using a choice questionnaire, sometimes the answers do not represent the respondent conditions. Also, data were collected using an online questionnaire thus the respondents does not understand the real context of the statements and this is affected to their interpretation.

Limitations

This research has been attempted and carried out in accordance with scientific procedures, however, it still has limitations, namely the factors that influence preferences in this study consist of four variables, namely perceived usefulness, perceived ease of use, perceived risk and perceived cost. While there are many other factors that influence consumer attitudes such as product quality and the level of privacy and security. There is a limitation of research using a choice questionnaire, namely sometimes the answers given by respondents do not show the real situation. The data was collected using an online questionnaire so that the respondents' understanding of the statements in the questionnaire could not be explored more deeply.

CONCLUSION

Based on the results, several conclusions; (1) Perceived usefulness, perceived ease of use, Perceived risk, and perceived cost has positive and significant effect on attitude; (2) Attitude has a positive and significant effect on the intention to use BCA's M-Banking; (3) The attitude of being able to mediate the relationship between perceived usefulness, perceived ease of use, perceived risk and perceived cost with the intention to use BCA's M-Banking.

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