THE USE OF INFORMATION COMMUNICATION TECHNOLOGY (ICT) AS THE TECHNOLOGY ACCEPTANCE MODEL (TAM) OF MOBILE BANKING

Paulus Yokie Radnan  
John Tampil Purba  
Universitas Pelita Harapan  
paulus.radnan@uph.edu  
john.purba@uph.edu

Abstract

Information Technology services in banking business which is very dynamic and advanced makes the bankers must adjust to the presence of this technology. In this paper, the authors will explain the role of Mobile banking technology which is provided by CIMB Niaga in servicing its customers for banking transactions. The methodology used in this paper is quantitative with the purposive sampling one. Instrument used the Technology Acceptance Model (TAM) as developed by Parasuraman and Davis by modifying them to fit the state of the research object. This research was conducted in Jakarta and several other places. Research and data collection took 6 months from November 2015 to April 2016. The variables included trust, perceived use (PU), perceived ease of use (PEU), attitude toward use (ATU), intent to use (ITU), and actual use (AU). After the data were collected, the regression analysis was performed. From the analysis result it was found that trust and perceived use (PU) variables did not positively and significantly influence the intent to use (ITU) variable, as well as the perceived use variables (PU) and perceived ease of use (PEU) which have no significant and positive effect on attitude variable on usage (ATU). For that case, the authors propose an improvement strategy to maintain and grow this business forward.

Keywords: mobile banking; strategy; technology acceptance model; and trust.

INTRODUCTION

The development of Information Communication and Technology (ICT) has penetrated many aspects of the business world including banking. Mobile banking technology is one of the products used by business banking managers. The technology development always changes from time to time and any organization shall adapt accordingly as stated by Purba (2014) said that change in the global situation cannot be stopped; any organization shall prepare good service management. In the line of that statement by Purba (2015) added; ICT usage in managing companies and other organizations become a strategic choice of innovation to achieve competitive advantage. Nowadays, the banking business uses emerging technologies, such as the internet and www, and enables customers (users of in the past
decades, much research has paid internet banking) to perform financial activities in attention to the perceived usefulness and perceived virtual space. These constructs standing of a customer’s beliefs to make him/her use are the salient beliefs underpinning the Technology Acceptance Model (TAM). The TAM is one of Internet banking and technologies toward the customer behavior. The most widely used models for explaining the in spite of the recent proliferation of Electronic factors that have an impact on user acceptance of IS. Customers are generally comfort. However, the factors contributing to the acceptance able providing Web sites with general information of new IS are likely to vary with the technology, such as preferences. They are, however, much untargeted users, and context. Internet banking is comfortable when asked to provide more sensitive very different from traditional IS (Davis, 1989; Suh & Han, 2002). That why IT becomes main tool to implement the various activities for the sake of corporate sustainability, so the readiness and acceptance of the new technology contributing to organizational effectiveness in running the companies and or organizations. The intensity of Creative Economy Competition is increasing from time to time this is influenced by the presence of new technology that makes the service industry growing very influential to the gross domestic product of each country concerned. The service industry is like; flights, banking, telecommunications, hotels, insurance, food, and so forth. The use of information systems and information technology applications within the organization into development, now known as ICT and has been widely used in every transaction activity in the banking organization, either partially or as a whole (Kamaludin & Purba, 2015).

The Indonesia country is a very big market especially in Information communication technology such as internet or digital business as Wahyudi (2015) Indonesian smartphone users are also growing rapidly. Digital marketing research institute e-marketer estimates that by 2018 the number of active smartphone users in Indonesia is more than 100 million people (e-Marketer, 2014). With that amount, Indonesia will be the country with the fourth largest smartphone active users in the world after China, India, and America. The use of this technology is very useful for banking customers in various transactional matters. In BCA bank, the use of banking technology becomes the main tools in delivering services, in the similar has been implemented in Mandiri Bank (the state owned bank) has been proven that technology to upgrade income and draw a lot of customers. This success is due to support from information technology companies and used by players in the field. Gupta (2013) mentioned that these successes have prompted new players to launch similar services in many emerging markets. However, of the more than 130 such services, only a small number have been successful. A study by the World Economic Forum shows that only four countries – Kenya, Tanzania, Ghana, and Philippine. For the adoption of this MFS technology, Indonesia's position is similar to Uganda, South Africa and Malaysia as shown below:
The development of this technology becomes the most important part in improving the service so it becomes a tool used to achieve the competitive advantages by the players of banking both domestic and global (Gupta, 2013). Similarly, what happens in the national banking today including the banking that researchers’ study is CIMB Niaga Bank. Today situation is the main thing that any banking in addition to the services of after-sales service and products sold by banks themselves. Mobile banking is a service provided by CIMB Niaga in providing services that facilitate consumers in making transactions. The Information Technology Innovation put forward by CIMB Niaga to ensure transactions conducted by customers can run safely, efficiently and effectively. CIMB provides practical transactions towards its customers; Abadi (2015) mentioned that Mobile Account makes all the banking transactions feel practical like cash deposit, cash withdrawal, ATM transactions, check balances, transaction history, and pay bills. This transaction model is a new way of making phone numbers as bank account numbers. Like a bank account, then the phone number is valid also to access all the bank services as above. Remarkably, transactions can be done across operators. There six variables of this research will be tested they are; perceive ease of use, perceived usefulness, trust, attitude towards use, intention to use, and actual system usage. In the country of Indonesia, for the banking transactions which use the phone banking account with Information Technology system until this paper written, according to the researchers knew is only CIMB Niaga. That is why the writers are interesting to do research on this one accordingly.

This study aims at the following: 1) Analyzing the positive influence of perceived usefulness on trust in using mobile phone accounts, 2) Analyzing positive influence of trust on attitude toward the use of mobile account, 3) Analyze positive influence of trust on intention to use mobile account, 4) Analyze the positive effect of perceived ease of use on perceived use in using mobile accounts, 5) Analyze the positive effect of perceived usefulness on...
attitudes towards the use of mobile accounts, 6) Analyze the positive effect of perceived ease of use on the use of mobile accounts, 7) Analyze the positive effect of perceived usefulness on the intention of using a mobile account, 8) Analyze the positive effect of attitudes on use on the intention of using a mobile account, 9) Analyze the positive effect of intent using on the actual use of mobile phone accounts.

LITERATURE REVIEW

Using the information technology in giving better services to the customers and clients recently becomes the requirements. The statement of Purba & Rorim (2015) in delivering better services toward the customers becomes the main key strategy in achieving the goals in this era of century development. Most of the organizations over the world always do reviews and redesign on their services delivery toward their customers for the sake of growing and sustainability of their businesses, companies, governments, non-governments organizations also higher education institutions.

According to Purba (2014) ICT usage in managing companies and other organizations become a strategic choice of innovation to achieve competitive advantage nowadays. IT becomes main tool to implement corporate sustainability, so the readiness and acceptance of the new technology contributing to organizational effectiveness in running the companies and or organizations.

Parasuraman (2000) also explains that it is possible for the customer to have both positive and negative feelings about technology, especially high technology products and services. In his study also stated that even technological optimists and innovators experience anxiety in the same way as less technology-enthusiastic customers. As noted earlier, technology readiness (TR) refers to the propensity of consumers to embrace and use new technologies for accomplishing goals. He also adds that the technology readiness construct refers to people’s propensity to embrace and use new technologies for accomplishing goals in home life and work (Purba, 2015; Rorim & Purba, 2015).

In line to opinion there is similarity to the research of Davis (1989) the main contributor to actual use of a new technology is its perceived usefulness. Hence, people primarily adopt new technologies based on their functions, rather than based on how easy it is to perform the functions. Users are, for instance, willing to adopt a difficult system if it captures a critical function. However, in practical terms, about 90% of research done on TAM also shows direct effects of perceived ease of use on actual use (Schepers & Wetzels, 2007).
Understanding mobile banking itself is a terminal used as performing balance checks, financial transactions, payments and so forth. Through the use of mobile devices such as mobile telephony, the performance of mobile banking itself can be demonstrated not only through the sending of SMS or mobile Internet but also through applications downloaded through the web or through applications in the mobile phone (Tiwari et al. 2007). As for mobile banking there are services such as short messaging service, mobile phone banking, and other micro payment instruments. Mobile banking product is a banking product which is adopted from internet banking service which becomes the liaison between customer and bank, even though the customer is difficult to access the bank. The advantages of internet banking and mobile banking services provide beneficial benefits for banks where this can reduce transaction costs (Mallat et al., 2004).

Consumers who feel satisfaction is the consumers who already can feel through the product offerings made and then associated with expectations from consumers themselves. Satisfaction and consumer dissatisfaction can be measured through the overall feelings and behaviors that are owned by consumers of products that have been purchased. Consumer behavior according to Hawkins & Mothersbaugh (2013) is defined as the study of individuals, groups or organizations and the processes they use to select, secure, and eliminate products, services, experiences or ideas to meet needs and that this process will has an impact on consumers and society. Stages of consumer decision making in the determination of consumer decisions in adopting a technology and acceptance of new products will go through a process of stages. The process of this stage is divided into 5 stages of decision making, namely: the introduction of problems, information search, alternative evaluation, product selection decisions and post-purchase behavior. In this stage the consumer does not always experience the five stages but passes a stage or reverses several stages (Kotler & Keller, 2012).

The technology acceptance model (TAM) is a framework commonly used to test factors that affect the reception of information systems (Jeong & Yoon, 2013). Initially TAM was introduced by Davis (1989) who was an adaptation of the Theory of Reasoned Action (TRA) model is to explain the factors that affect consumer acceptance of information technology with a population of users and the broad range of information technology (Davis, 1989). The TRA states that the behavior of individuals is driven by the intention of behaving in which the intention of behaving is a function of Individual attitudes toward subjective behaviors and norms related to performance of behavior (Fishbein & Ajzen, 1975). The use of this TAM model is used to predict consumer attitudes in adopting consumer technology. While in the theory of TRA is a theory that sees the relationship between attitudes and consumer behavior in performing actions based on the use of information products and technology.

Trust in mobile banking is defined as a belief that allows individuals to be critical to both e-banking technology and to the bank after receiving the characteristics of the bank attached to the technology artifacts used (Koo & Wati, 2010). With regard to the uncertainties and risks that arise in online transactions, trust gains enormous attention in the context of electronic commerce (Zhou, 2011). According to McKnight & Chervany (2002) belief is an important concept in relationships that require clarification because researchers in the cross-disciplinary sciences have defined this in various senses.
RESEARCH METHOD

This research uses quantitative method approach with primary data collection and survey method, where the researcher wants to know what respondent opinion, by giving closed question by distributing questionnaires. Data collection from questionnaires was done by distributing questionnaires around CIMB Niaga headquarters area as well as some offices located in Karawaci area according to predetermined criteria. The respondents are AIA Financial employees, customers and students of Pelita Harapan University who have been and have not used the mobile account service but already know about this service. In this case the population leads to anyone who will be involved in the research process of the entire group members in the population. The populations in this study are CIMB Niaga customers who have not used the existing mobile phone account in Karawaci Tangerang Banten area.

Here are the nine hypotheses proposed based on the research of Suh & Han (2002) whose models are shown in mathematical equation above: 1) Perceived usefulness positively affects trust in using mobile accounts, 2) Trust positively affects attitudes toward usage, 3) Consumer confidence positively affects the intention to use the mobile account, 4) Perceived ease of use positively affects the perceived usefulness of the mobile account, 5) Perceived use positively affects attitudes towards the use of mobile accounts, 6) Perceived ease of use positively affects attitudes towards the use of mobile accounts, 7) Perceived use positively affects the intention to use accounts, 8) Attitudes toward usage have a positive effect on the intention to use mobile phone accounts, 9) The intent to use positively affects the actual use of mobile accounts.

Based on the results of the questionnaires the authors conducted 4 stages of analysis, namely: Test validity and reliability of small samples, correlation coefficient analysis, regression analysis, and hypothesis testing. Validity and reliability test is done by analyzing data that has been managed by using program SPSS version 21. The results of the validity test in the preliminary study of KMO values must be greater than 0.50 for this analysis to proceed to the next stage of anti-image correlation and rotated component matrix. In the reliability test in the preliminary study using Cronbach's alpha coefficient technique, the requirements of Cronbach's alpha value of 0.7 to over 0.8 are acceptable. Regression analysis performed is simple linear regression and multiple linear regressions. Simple linear regression to measure the effect of the intention variable to use (ITU) on actual use (AU), the perceived usefulness variable (PU) on trust, perceived ease (PEU) on perceived use (PU) Multiple linear regression is used to measure the effect: Attitude variables on use (ATU), trust (Trust), and perceived usefulness (PU) on intent to use (ITU). Perceived ease of use (PEU), perceived use (PU), and trust (Trust) on attitudes to use (ATU). Hypothesis test used in this research is t test. The α value assigned in this study is 0.5 and the table value for sample size over 100 respondents (or ∞) is equal to 1.96.
Table 1

| No. | Question Item | Correlation Coefficient | Sig. | Note |
|-----|---------------|--------------------------|------|------|
| 1   | PU1           | .57**                    | 0.00 | Valid|
| 2   | PU2           | .39**                    | 0.00 | Valid|
| 3   | PU3           | .63**                    | 0.00 | Valid|
| 4   | PU4           | .47**                    | 0.00 | Valid|
| 5   | PU5           | .38**                    | 0.00 | Valid|
| 6   | PU6           | .55**                    | 0.00 | Valid|
| 7   | PU7           | .70**                    | 0.00 | Valid|
| 8   | PEU1          | .49**                    | 0.00 | Valid|
| 9   | PEU2          | .48**                    | 0.00 | Valid|
| 10  | PEU3          | .62**                    | 0.00 | Valid|
| 11  | PEU4          | .58**                    | 0.00 | Valid|
| 12  | PEU5          | .63**                    | 0.00 | Valid|
| 13  | T1            | .61**                    | 0.00 | Valid|
| 14  | T2            | .60**                    | 0.00 | Valid|
| 15  | T3            | .47**                    | 0.00 | Valid|
| 16  | T4            | .70**                    | 0.00 | Valid|
| 17  | T5            | .62**                    | 0.00 | Valid|
| 18  | ATU1          | .68**                    | 0.00 | Valid|
| 19  | ATU2          | .70**                    | 0.00 | Valid|
| 20  | ATU3          | .48**                    | 0.00 | Valid|
| 21  | ATU4          | .45**                    | 0.00 | Valid|
| 22  | ATU5          | .69**                    | 0.00 | Valid|
| 23  | ITU1          | .51**                    | 0.00 | Valid|
| 24  | ITU2          | .62**                    | 0.00 | Valid|
| 25  | ITU3          | .42**                    | 0.00 | Valid|
| 26  | ITU4          | .29**                    | 0.00 | Valid|
| 27  | AU1           | .64**                    | 0.00 | Valid|
| 28  | AU2           | .62**                    | 0.00 | Valid|
| 29  | AU3           | .55**                    | 0.00 | Valid|

**Correlation is significant at the 0.01 level (2-tailed)

Source: Data processing using SPSS 24

For the reliability test is measured by Cronbach’s alpha method. The construct is considered reliable if the value of Cronbach’s alpha > 0.70. Based on table 1 the results of Cronbach’s alpha show that the value of PU is 0.88, PEU with value 0.78, trust with value 0.83, ATU with value 0.84, ITU with value 0.85 and AU with value 0.82. Based on the results of the Cronbach’s alpha test, indicating that the overall variables have met the criteria of Cronbach’s alpha that those are already more than 0.70, therefore all available variables can be declared are reliable.

The stages in the test instrument that is by testing the validity of large samples by looking at KMO MSA (Measure of adequacy) and Bartlett’s Test of Sphericity. Value of MSA varies from 0 to 1, the computation of MSA 0.75 values <0.50 then factor analysis can be performed. Next is an anti-image correlation test and measurement of rotated component matrix to see the validity of each research indicator.
Table 2
The result of Reliability test

| Variables                   | Cronbach’s alpha | Note  |
|-----------------------------|------------------|-------|
| Perceived usefulness (PU)   | 0.69             | Reliable |
| Perceived ease of use (PEU) | 0.79             | Reliable |
| Trust (T)                   | 0.80             | Reliable |
| Attitude toward use (ATU)   | 0.81             | Reliable |
| Intention to use (ITU)      | 0.83             | Reliable |
| Actual use (AU)             | 0.86             | Reliable |

Source: Data processing using SPSS 24

The expected anti-image value is a minimum of $0.50 > 0.50$, while the expected value for a rotated component matrix is a minimum of $0.50 > 0.50$. The next step is to test the reliability performed to prove the accuracy, consistency and accuracy of the instrument in measuring the constructs (Latan & Ghozali, 2012). In the reliability test is measured by the method of cronbach’s alpha. A construct is considered reliable if the value of Cronbach’s alpha $> 0.70$.

Table 3
Rotated Component Matrix

| Items       | Component |
|-------------|-----------|
|             | 1  | 2  | 3  | 4  | 5  | 6  |
| PU2         | 0.71|    |    |    |    |    |
| PU3         | 0.72|    |    |    |    |    |
| PU4         | 0.84|    |    |    |    |    |
| PU5         | 0.83|    |    |    |    |    |
| PU6         | 0.86|    |    |    |    |    |
| PEU2        |      | 0.85|    |    |    |    |
| PEU3        |      |    | 0.68|    |    |    |
| PEU4        |      |    |    | 0.60|    |    |
| T1          |      |    |    |    | 0.83|    |
| T2          |      |    |    |    | 0.83|    |
| T3          |      |    |    |    | 0.72|    |
| T4          |      |    |    |    | 0.57|    |
| ATU1        |      |    |    |    |    | 0.57|
| ATU3        |      |    |    |    |    | 0.90|
| ATU4        |      |    |    |    |    | 0.67|
| ATU5        |      |    |    |    |    | 0.65|
| ITU1        |      |    |    |    | 0.82|    |
| ITU3        |      |    |    |    | 0.88|    |
| ITU4        |      |    |    |    | 0.79|    |
| AU1         |      |    |    |    |    | 0.64|
| AU2         |      |    |    |    |    | 0.81|

Source: Data processing using SPSS 24

The next testing is an anti-image correlation test and measurement of rotated component matrix to see the validity of each research indicator. The expected anti-image value is a minimum of $0.50 > 0.50$, while the expected value for a rotated component matrix is
The Use of Information Communication Technology (ICT) As The Technology Acceptance Model (TAM) of mobile Banking

Based on the anti-image correlation value of each question item presented above each anti-image correlation is greater than 0.50. It can thus be concluded that each question item is eligible to be included in the factor analysis because it meets the requirements of the adequacy of the sample. Based on test on the rotated component matrix stage shows that some indicators are still not clustered. Non-clustering indicators are indicators of PU1, PU7, PEU1, T5, and ATU2. Thus the irrelevant indicator will be deleted and re-examined the clustering of indicators in the second phase. In the second stage of validity test shows that there are indicators that are still not clustered. Non-clustering indicators are indicators of PEU1 and ATU2. Thus the irrelevant indicator will be deleted and retesting the clustering of indicators in the third stage.

Based on the validity test indicating that there are indicators that are still not grouped. Non-clustering indicators are indicators of PEU5, ATU2, and AU3. Thus the irrelevant indicator will be deleted and retesting the indicator grouping in stage four. In the fourth stage of validity test in Test shows that there are indicators that are still not clustered. Non-clustering indicators are indicators T5, ATU2, AU1, AU3. Thus the irrelevant indicator will be deleted and retesting the indicator grouping at the fifth stage the fifth stage validity test in Test shows that there are indicators that are still not clustered. Non-clustering indicators are indicators of ATU2, AU1, AU3. Thus the irrelevant indicator will be deleted and retesting the indicator grouping at the sixth stage.

In the sixth stage validity test shows that there are indicators that are still not clustered. The non-clustering indicator is an AU3 indicator. Thus the irrelevant indicator will be deleted and retesting the indicator grouping at the seventh stage. In the seventh stage validity test shows that there are indicators that are still not clustered. Non-clustering indicators are indicators ITU2, AU1. Thus the irrelevant indicator will be deleted and retesting the indicator grouping at the eighth stage In the test of the validity of the next stage in test shows that all indicators are clustered. Table 4.2 shows the already clumped variables and the expected value for the rotated component matrix is in accordance with the minimum specified requirement of 0.500 (> 0.500)

Conceptual Framework

The framework of this research derive from Suh & Han (2002) and the researchers replicate it because the framework already tested and given. Due to that, it is also became the research model. The previous research of this model conducted by Suh & Han (2002). Research on the acceptance of mobile banking technology has been done with the development of TAM model. Suh & Han (2002) argue that trust is an important factor in the development of information systems in the banking world.

The model which used in this research paper is presented in mathematical equation way as the following:

\[ Y_{PU} = \beta_0 + X_{PEU} + \varepsilon \] ...................................................... (1)

\[ Y_{TRUST} = \beta_0 + X_{1PU} + \varepsilon \] ...................................................... (2)

\[ Y_{ATU} = \beta_0 + X_{1TRUST} + X_{2PU} + X_{3PEU} + \varepsilon \] ..................................(3)

\[ Y_{ITU} = \beta_0 + X_{1TRUST} + X_{2ATU} + X_{3PU} + \varepsilon \] ..................................(4)

\[ Y_{AU} = \beta_0 + X_{1ITU} + \varepsilon \] ......................................................(5)
Hypothesis Development

In the research conducted by Suh & Han (2002) reported that in addition to the TRA model, TAM also asserts that attitudes toward behavior are determined by certain beliefs. The TAM research model puts perceived usability and perceived ease of use has a direct effect on attitudes in the use of information systems. In the marketing area, several studies have found that trust has an influence on user attitudes. The use of a particular system will improve customer performance (Davis, 1989). Based on theories above, this study developed hypothesis such as:

H1: Perceived usefulness positively affects trust in using mobile accounts

The study conducted by Suh & Han (2002) writes that the quality of the relationship has a positive effect on anticipation of future action in the context of sales services. Trust in mobile banking is defined as a belief that allows individuals to be critical to both e-banking technology and to the bank after receiving the characteristics of the bank attached to the technology used (Koo & Wati, 2010). A certain belief that is primarily concerned with the virtues, competence, and integrity of the other party (Chiu et al., 2009). Based on theories above, this study developed hypothesis such as:

H2: Trust positively affects attitudes toward usage

Behavioral intent is defined as the intention of behaving to keep using a technology. The degree of use of a technology to a person can be predicted from his attentiveness to the technology, such as the motivation to keep using, as well as the desire to motivate other users. Cognitive representation of a person's willingness to perform certain behaviors and considered as direct triggers of behavior (Ajzen, 1991). Based on theories above, this study developed hypothesis such as:

H3: Consumer confidence positively affects the intention to use the mobile account

The perceived ease of use can be defined as the extent to which a person believes that using a technology / system will relieve it of effort in using that system in every day transactions. The extent to which an individual believes that using a particular technology will be free from effort (Davis, 1989). Based on theories above, this study developed hypothesis such as:

H4: Perceived ease of use positively affects the perceived usefulness of the mobile account.

Perceived usefulness can be defined as the degree to which a person believes that using a technology / system will improve their work performance. What is meant by the perception of benefit here is the user's perception of the benefits of the technology used. Based on theories above, this study developed hypothesis such as:

H5: Perceived use positively affects attitudes towards the use of mobile accounts.

The effect of the ease of use has on perceived usefulness (Agarwal & Prasad, 1999; Davis et al., 1989; Hu, Chau, Sheng, & Tam, 1999; Venkatesh, 1999, 2000; Venkatesh & Davis, 1996, 2000; Venkatesh & Morris, 2000). Mobile account in banking systems must be both easy understand and easy to use in order to prevent the using problems of mobile banking system. So the customers willing to use that systems. Based on theories above, this study developed hypothesis such as:

H6: Perceived ease of use positively affects attitudes towards the use of mobile accounts.
In relating to the effects of perceived usefulness in the field of new technologies present different results. Some studies support the significant and positive effect of this construct on intention to using that application. Since the use of m-banking apps is still considered an innovation within existing payment systems and the usefulness it provides to the consumer will be closely related to its adoption (Pham & Ho, 2015, Davis, 1989). Based on theories above, this study developed hypothesis such as:

H7: Perceived use positively affects the intention to use accounts

Perceived ease of use is defined as the extent to which an individual believes that using m-banking would be free of effort. Prior studies show that perceived ease of use has a significant effect on usage intention, either directly or indirectly through its effect on perceived usefulness (Davis, 1989; Venkatesh, 2000; Venkatesh and Davis, 1996). A system perceived to be easier to use will facilitate more system use and is more likely to be accepted by users (Venkatesh and Morris, 2000). Evaluations from human behaviour (Fishbein dan Ajzen, 1975). Based on theories above, this study developed hypothesis such as:

H8: Attitudes toward usage have a positive effect on the intention to use mobile phone accounts.

Actual usage is the real condition of technology usage. Conceptualized in the form of measurements of the frequency and duration of technological usage. Someone will be content to use the system if they believe that the system is easy to use and will improve their productivity, which is reflected in the real conditions of use. The effect of one of the intentions behaves, where actual usage leads to (how often) and the volume of actual usage (how much) by the user (Davis, 1989). Based on theories above, this study developed hypothesis such as:

H9: The intent to use positively affects the actual use of mobile accounts.

RESULTS AND DISCUSSION

In this paper the researcher uses descriptive analysis where after calculation with SPSS statistical application where the results show that is not much different between each variables. The regression results are described in Table 4 below.

| Hypothesis | Variable Independent | Variable Dependent | Correlation Model | Value of $\beta$ (standardized coefficients) | $t_{value}$ | Sig. | Result of Regression |
|------------|----------------------|--------------------|-------------------|---------------------------------------------|------------|------|---------------------|
| H1 Perceived usefulness (PU) | Trust (+) | 0.37 | 30.91 | 0.00 | Supported |
| H2 Trust | Attitude toward use (ATU) (+) | 0.48 | 40.81 | 0.00 | Supported |
| H3 Trust | Intention to use (ITU) (-) | -0.08 | -0.72 | 0.47 | Not Supported |
| Hypothesis | Variable Independent | Variable Dependent | Correlation Model | Value of $\beta$ (standardized coefficients) | $t_{value}$ | Sig. | Result of Regression |
|------------|----------------------|--------------------|-------------------|---------------------------------------------|----------|-----|---------------------|
| H4         | Perceived ease of use (PEU) | Perceived usefulness (PU) | (+) | 0.57 | 60.86 | 0.00 | Supported |
| H5         | Perceived usefulness (PU)  | Attitude toward use (ATU) | (-) | -0.09 | -0.87 | 0.39 | Not Supported |
| H6         | Perceived ease of use (PEU) | Intention to use (ITU) | (+) | 0.06 | 0.53 | 0.60 | Not Supported |
| H7         | Perceived usefulness (PU)  | Intention to use (ITU) | (-) | -0.07 | -0.69 | 0.49 | Not Supported |
| H8         | Attitude toward use (ATU)  | Intention to use (ITU) | (+) | 0.49 | 40.70 | 0.00 | Supported |
| H9         | Intention to use (ITU)     | Actual Use (AU)      | (+) | 0.59 | 7.21 | 0.00 | Supported |

The conclusion of the hypothesis test above is: 1) The first hypothesis test states that the PU variable has a significant influence on the Trust variable, 2) The second hypothesis test states that the Trust variable has a significant influence on the ATU variable, 3) The third hypothesis test States that the Trust variable has no significant effect on ITU variables, 4) The fourth hypothesis test states that the PEU variable has a significant influence on the PU variable, 5) The fifth hypothesis test states that the PU variable has no significant effect on the ATU variable, 6) The sixth hypothesis test states that the variable PEU has no significant effect on the ATU variable, 7) The seventh hypothesis test states that the PU variable has no significant effect on the ITU variable, 8) The eighth hypothesis test states that the ATU variable has no significant effect on the ITU variable, 9) The ninth hypothesis test states that the ITU variable has a significant influence on the AU variable.

CONCLUSION

Based on the analysis that has been done in finding and discussions, then made the conclusion of research as follows: 1) Consumers on beliefs that have not really believe in technology issued by CIMB NIAGA is mobile phone account, although the value of the average variable and in terms of usefulness perceived to have a positive effect on mobile phone account products, 2) the intention to use the existing on the consumer is based on the perception of the benefits that exist in this product. This product can be positively received by consumers viewed on perceived ease and perceived use. This is also in line with that suggested by TAM's theory, 3) the perceived ease of this product is less supportive of consumer adoption on actual usage. Consumers assume that despite the convenience offered by mobile accounts but have not been able to generate intentions to use from mobile accounts, 4) this mobile account service does provide convenience for customers who
transact on day-to-day activities and also support branchless banking programs. Proclaimed by CIMB NIAGA, 5) Consumers feel the perceived usefulness of this product has not provided benefits in activities and work undertaken and has not been able to increase productivity from consumers.

**IMPLICATION**

As per discussion above; the performance technological readiness and human capital development becomes the strategic awareness, strategic alignment, strategic skills, leadership in the company CIMB Niaga Bank. The survey mentioned the following priorities for human capital development on strategic skills/competencies for giving the services to the customers. For the sake sustainable and development of companies, the writers proposed few strategies to be done by the companies or organizations; 1) For the short term and long term doing the recruitment shall ensuring alignment of skills with functions, 2) Prepare the continuous development and improvement of employees by training development due to the high standard and complexity of the technology readiness level and technological acceptance, 3) The ICT directorate always take care gradually the technology trends and job descriptions for all positions as the company needs by adopting the global situations, 4) The top management shall ensure service compliance by accommodate the dynamics service delivery.

**LIMITATIONS AND SUGGESTIONS**

Advice for Bank CIMB NIAGA is to provide intensive and specific education and socialization to the customers that this technology is the best and reliable service for customers. With regard to perceived usability variables that have not positively impacted attitudes on usage, CIMB NIAGA can develop mobile account services in a better direction by innovating leads to productivity and performance support and more efficient in the future. The positive effect of perceived ease-of-use variables can be an excellent input for mobile account services. The development of this product in the future is also expected to be more toward the ease for the customers in the transaction activities conducted.

**REFERENCES**

Abadi, R. (2015). Rekening Ponsel, Mudahnya Bertransaksi Dalam Satu Genggaman Tangan, 28 October 2015. https://www.cermati.com/artikel/rekening-ponsel-mudahnya-bertransaksi-dalam-satu-genggaman-tangan.

Agarwal, R., & Prasad, J. (1999). Are individual differences germane to the acceptance of new information technologies?. *Decision Sciences, 30*(2), 361–391.

Ajzen, Icek. (1991). “The Theory of Planned Behavior,” Organizational Behavior and Human Decision Processes. pp. 179-211.
Chiu, Chao-Min., Chang, Chen-Chi., Cheng, Hsiang-Lan., & Fang, Yu-Hui. (2009). “Determinants of customer repurchase intention in online shopping,” Online Information Review, 33, Is. 4, pp. 761 – 784.

Davis, Fred D. (1989). “Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology,” MIS Quarterly, 13(5), pp. 319 - 339.

E-Marketer. (2014). Retrieved from https://www.emarketer.com/Article/Internet-Hit-3-Billion-Users-2015/1011602, on April 2015.

Fishbein, M., & Ajzen, I. (1975). Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research. Boston: Addison-Wesley.

Gupta, Sunil. (2013). The Mobile Banking and Payment Revolution, February – March 2013. Retrieved on 20 June 2016 from http://emergingpayments.org/wp-content/uploads/2017/02/The-Mobile-Banking-and-Payment-Revolution.pdf

Hawkins, D., & Mothersbaugh, D. (2013). Consumer Behavior: Building Marketing Strategy, 12th ed. New York: McGraw-Hill.

Jeong, Bong-Keun., & Yoon, Tom E. (2013). “An Empirical Investigation on Consumer Acceptance of Mobile Banking Services,” Business and Management Research, 2, pp. 31-40.

Kamaludin & Purba, J.T. (2015). Strategic Management Banking Technology Readiness Analysis in Facing Challenges and Opportunities. Retrieved on May, 25th, 2016 from http://www.atlantis-press.com/php/pub.php?publication=iceb-15.

Koo, C., & Wati, Y. (2010). “Toward an Understanding of the Mediating Role of Trust in Mobile Banking Service: An Empirical Test of Indonesia Case,” Journal of Universal Computer Science, 16(13), pp. 1801-1824

Kotler, P., & Keller, K. (2012). Marketing Management, 14th ed. Upper Saddle River: Pearson Prentice Hall.

Latan, H., & Ghozali, I. (2012). Partial Least Squares Konsep, Teknik dan Aplikasi SmartPLS 2.0 M3: untuk Penelitian Empiris. Semarang: Universitas Diponegoro.

Mallat, N., Rossi, M., & Tuunainen, V. K. (2004). “Mobile Banking Services,” Communications of The ACM. 47(5), pp. 42-46.

McKnight, D. H., & Chervany, N. L. (2002). “What Trust Means in E-Commerce Customer Relationships: An Interdisciplinary Conceptual Typology,” International Journal of Electronic Commerce. 6(2), pp. 35–59.

Parasuraman, A. (2000). Technology-Readiness Index (TRI): A Multiple-Item Scale to Measure Readiness to Embrace New Technologies. Journal of Service Research, 2(4): 307-320

Pham, T. T. T., & Ho, J. C. (2015). The effects of product-related, personal-related factors and attractiveness of alternatives on consumer adoption of NFC-based mobile payments. Technology in Society, 43, 159-172.

Purba, J. T. (2014). Service Management Strategy by Implementing the Academic Information Systems in Indonesia Higher Education: Case Study. Proceedings; Presented in 11th International annual symposium on management 2014, in Batu Malang, East Java.

Purba, J. T. (2015). Strategic Innovation through Technology Readiness and Acceptance in Implementing ICT for Corporate Sustainability. Proceeding. Presented in the International Symposium and Management in Makassar, March 2015.
Purba, J.T. (2014). Usage of IT Services in Higher Education Management for Innovation Strategy: A case study. Proceedings. Presented in the International Conference and Organizational Innovation (ICOI 2014) De La Salle University System, Manila, Philippines on August 12–14, 2014.

Purba, J.T. and Rorim, P (2015). Innovation Strategy Services Delivery: An Empirical Case Study of Academic Information Systems in Higher Education Institution. Retrieved on May 25th, 2016 from https://link.springer.com/chapter/10.1007/978-3-662-46742-8_47

Purba, John T. (2015). Strategi Peningkatan Kualitas Layanan kepada Pelanggan Pitza Hut Pasar Festival Jakarta Selatan. Prosiding. Dipresentasikan pada seminar Nasional Fakultas Ekonomi Universitas Kristen Maranatha, Bandung. 11-13 Mei 2015.

Rorim, P. & Purba, J.T. (2015). Lecturers and Students Technology Readiness in implementing Services Delivery of Academic Information System in Higher Education Institution: A Case Study. Retrieved on June 25th, 2016 from https://link.springer.com/chapter/10.1007/978-3-662-46742-8_49.

Suh, Bomil and Han, Ingoo. (2002). “Effect of Trust on customer acceptance of Internet Banking,” Electronic Commerce Research and Applications Journal. 1, Iss. 3 – 4, pp. 247-263.

Tiwari, R., Buse, S., & Herstatt, C. (2007). “Mobile Services in Banking Sector: The Role of Innovative Business Solutions in Generating Competitive Advantage.” Proceedings of the International Research Conference on Quality, Innovation and Knowledge Management, New Delhi, pp. 886-894.

Venkatesh, A., & Morris, M.G. (2000). Why don’t men ever stop to ask for directions? gender, social influence, and their role in technology acceptance and usage behavior. MIS Quarterly, 24(1), 115-139.

Venkatesh, V., & Davis, F. D. (2000). “A theoretical extension of the technology acceptance model: four longitudinal field studies,” Management Science. 46(2), pp. 186-204

Wahyudi, A. (2015). Indonesia Raksasa Teknologi Digital Asia, Tempo. Co. kolom. October 2th, 2015. Retrieved on May 23rd, 2016 from: http://www.tempo.co/read/kolom/2015/10/02/2310/indonesia-raksasa-teknologi-digital-asia.

Zhou, T. (2011). “An empirical examination of initial trust in mobile banking,” Internet Research, 21(5), pp. 527-540.
