



**FAKTOR-FAKTOR YANG MEMPENGARUHI PERSEPSI
MANFAAT PENGGUNAAN LAYANAN E-BANKING
(Studi Pada Bank BNI Makassar)**

***FACTORS AFFECTING PERCEIVED OF USEFULNESS
OF USING E-BANKING SERVICES
(Study at Bank BNI Makassar)***

Feby Fauziah Haya^{1*}, Haris Maupa² and Nuraeni Kadir³

¹ Feby Fauziah Haya 1 ; febyfauziahaya@gmail.com

² Haris Maupa 2 ;

³ Nuraeni Kadir 3 ;

* Address for Correspondence: Feby Fauziah Haya, Email : febyfauziahaya@gmail.com, Tlp.081241215446

Abstrak

Perbankan perlahan mengalihkan layanan perbankan konvensional ke layanan aplikasi digital. Perubahan ini tidak dapat dielakkan lagi di era sekarang. Penelitian ini bertujuan untuk mengetahui pengaruh (*Perceived self-efficacy*), kompleksibilitas (*complexity*), kepercayaan (*perceived trust*), kompatibilitas (*compatibility*) dan persepsi kemudahan penggunaan (*perceived ease-of-use*) terhadap persepsi manfaat (*perceived usefulness*) dalam menggunakan layanan *e-banking* pada PT. BNI. Untuk mencapai tujuan tersebut maka digunakan penyebaran kuesioner dengan teknik analisis data menggunakan analisis SEM PLS. Hasil penelitian menemukan bahwa persepsi efikasi dari memberikan dampak dalam meningkatkan persepsi kemudahan penggunaan dalam menggunakan layanan *e-banking* BNI. Kompleksitas memberikan pengaruh negatif terhadap persepsi kemudian dalam menggunakan layanan *e-banking*. Pengaruh persepsi kepercayaan memberikan dampak dalam meningkatkan persepsi manfaat dalam penggunaan layanan *e-banking* BNI. Pengaruh persepsi kompatibilitas memberikan dampak terhadap persepsi manfaat dalam menggunakan layanan *e-banking* BNI. Pengaruh persepsi kemudahan penggunaan memberikan dampak terhadap persepsi manfaat dalam menggunakan layanan *e-banking* BNI.

Kata kunci : efikasi diri, kompleksitas, kepercayaan (*perceived trust*), kompatibilitas (*compatibility*) dan persepsi kemudahan manfaat

Abstract

Banking is slowly shifting conventional banking services to digital application services. This change is inevitable in today's era. This study aims to determine the effect (*Perceived self-efficacy*), complexity, perceived trust, compatibility and perceived ease-of-use on perceived usefulness of using *e-banking* services at PT. BNI. To achieve this goal, questionnaires were used with data analysis techniques using SEM PLS analysis. The results of the study found that the perceived efficacy had an impact in increasing the perceived ease-of-use of using BNI *e-banking* services. Complexity has a negative effect on later perceptions of using *e-banking* services. The effect of perceived trust has an impact in increasing the perceived of usefulness in the use of BNI *e-banking* services. The effect of perceived compatibility has an impact on the perceived usefulness of using BNI *e-banking* services. The effect of perceived ease-of-use has an impact on perceived usefulness of using BNI *e-banking* services.

Keywords: self-efficacy, complexity, perceived trust, compatibility and perceived ease-of-use

INTRODUCTION

As time goes by, advances in information technology have evolved to follow human development. Community can take advantage of existing modernization to support higher mobility. It cannot be denied that technological developments force the industry to formulate information technology strategies that they apply to remain competitive. The development of information technology which is often used by individuals is the internet. At the moment, the internet is a primary need for every individual. According to research conducted by HootSuite and We Are Social management in a report titled "Digital 2020: Indonesia", 175.4 million internet users with penetration of 64% have been connected to the internet. This is also supported by the ownership of mobile phones by 96% and smart phones as much as 94% which is not new at this time.

Several factors have accelerated migration to digital channels in Indonesia, including the rapidly increasing adoption of the internet and smartphones; The high growth of e-commerce especially during the current Covid-19 pandemic, which requires us to carry out all activities from home as well as matters related to banking. This indicates that 80% of e-commerce payments are made via mobile phones (Hootsuite & We Are Social. 2020).

As technology develops, consumers want something practical, for example buying food, ordering transportation modes, buying and selling foreign exchange or raising funds (crowdfunding). All of these platforms can involve various payment methods that they can access anywhere and anytime, only in the grip of a smartphone/computer.

The rapid advancement of digital technology makes technology-based financial services must also develop. This is marked by the needs of consumers who want something practical. Digital economy phenomenon, which means that all economic behavior based on digital technology, affects all economy levels, even in the banking sector, such as producing more elastic payment methods and easy-to-use banking services. Customers want convenience and flexibility (Birch and Young, 1997; Lagoutte, 1996). Therefore, consumers assume and hope that through them they can get fast, convenient, and compatible services on demand.

Banking creates several conveniences offered to customers who want something instant and can be used anywhere with an internet connection known as electronic banking. Electronic banking is an innovation created by banks by utilizing information technology so that it can be used digitally by their customers. (Oetomo and Foenadioen, 2003). Electronic banking has been present in Indonesia since 2000. With the presence of electronic banking, it is hoped that it can answer the convenience desired by banking customers themselves. With electronic banking, customers can more easily check accounts, overbooking, transfer funds to routine bill payments via the internet. (Barusman, 2013).

Electronic banking is an electronic banking service as the delivery of banking information and services provided by banks to their customers via computer or cellphone (Daniel, 1999 in Ahmad and Al-Zu'bi, 2011).

According to a survey conducted by Price waterhouse Coopers (PwC), mobile and internet took top positions for customer transactions. Branch offices no longer dominate transaction activities in the past 3 years. In 2015, only 10% of respondents made transactions out of 50% of transactions via electronic banking. ATM transactions are approaching the branch office level (although it is a difficult measurement considering that many ATMs are located outside branch offices).

Just 3 years ago, 75% of bankers estimated that more than half of their transactions were carried out through conventional branches - now this figure has dropped to 34%, while the trend of transacting on digital channels has risen to 35%. The increasing adoption of smartphones and other internet-enabled devices is making people trust digital channels more and more accustomed to using digital services. Customers now expect the same direct access to a personalized and seamless experience from their mobile banking application as they receive from other leading mobile applications (World Economic Forum & Deloitte, 2017).

Since 2011, digital banking has taken off across Asia. A McKinsey study indicates financial service consumers are turning to computers, smartphones and tablets when carrying out business with their banks more frequently, while visiting branches and calling service hotlines less frequently. Despite some structural constraints, this shift is likely to continue, and both incumbents and newcomers should be prepared for the consequences.

Banking is slowly shifting conventional banking services to digital application services. This change is inevitable in today's era. Banks need to be aware of current digital technology developments, if they don't want to be left behind by their customers who turn to financial institutions that indulge their customers.

The development of e-banking has innovated from banking activities which initially seemed complicated because you had to make various transactions by visiting a branch office. The presence of e-banking is a solution for time-consuming banking affairs. Now, everything is easier and can be carried out starting from the grip of the customer's cellphone. Banking makes it easy for their customers who want to open an account without having to go to the bank, save money, top-up their e-wallets, and other banking services without having to go to the bank with e-banking.

However, apart from the convenience provided by banks, it is hoped that e-banking users will actually increase as expected. Despite all the conveniences offered by e-banking, branch offices will continue to be relevant in Indonesia. According to a survey conducted by McKinsey in digital banking in Indonesia: Building Loyalty and Generating Growth, about four out of five respondents said that convenient branch locations and ATMs were the reasons for choosing a bank. In addition, limitations of e-banking transactions to services and security issues as well as difficulty in understanding the offer are still some obstacles of using e-banking. Some customers will look for the branch office to resolve these concerns.

While innovation is often seen as something new, it can often be based on rethinking how existing processes or systems are used; in other words, perform it better. There are various innovations that have succeeded, such as mobile digital wallets, opening accounts from smartphones, ATM withdrawals without cards, as well as payment of education fees via e-channels such as BNI Mobile Banking, BNI Internet banking, and ATMs.

Innovation and development are increasingly becoming a source of competitive advantage and over the past two decades, the banking industry has witnessed many innovative developments with significant implications for bank marketing efforts (Dootson et al., 2016). Contemporary financial services operate in a new and more complex environment where customer experiences and interactions with banks are being challenged and redefined. E-banking, particularly via cellphones has become the main way of providing multi-channel services to consumers by controlling two important parameters: time and distance. This new form of banking challenges the traditional banking model (Cortiñas et al., 2010) and as consumer expectations increase, engaging and maintaining it becomes very important for banks.

The Technology Acceptance Model (TAM) is used to assess the acceptance of a system. Then, this model also explains how the relationship between the usefulness of a system and the convenience obtained by its users. If all the factors are considered to be very precise, then the innovation and its application are declared to have been successfully used by users (Fiyah, et al. 2019). This model is used in this study to observe that the electronic banking application used by banking customers can make it easier and customers feel that of using the application they get several usefulness.

In TAM, there is perceived usefulness which can be interpreted as a subjective probability to application users that will increase one's work performance. Meanwhile, perceived ease-of-use refers to someone expecting a system to make it easier for them to use an application.

Research conducted by Mohammed Al-Husein and Muhammad Asad Sadi regarding "Preference on the Perception of Mobile Banking: A Saudi Arabian Perspective" indicates that trust in mobile banking use is a significant factor in consumer attitudes towards the adoption of mobile banking.

The research conducted by Eva Lacovou used the perceived benefit variable in digital-only banking as the dependent variable, while this study conducted the use of electronic banking

products in state-owned banks in the city of Makassar. Meanwhile, research conducted by Ratih Wijayanti indicates that the ability to use computers has a positive and significant effect on the perceived usefulness of using internet banking. Meanwhile, the relationship between trust does not prove a negative and significant effect on perceived convenience.

Meanwhile, research conducted by Ni Nyoman Kerti Yasa, Luh Putu Rara Ayu Ratnaningrum, and Putu Gde Sukaatmadja which analyzed the implementation of internet banking with the Technology Acceptance Model (TAM) approach concluded that perceived ease-of-use and perceived usefulness variables had a positive and significant relationship directly to attitude toward using. This study did not choose the attitude toward using variable because researchers focused more on the perceived usefulness after using electronic banking from banks.

BNI e-banking services make it easy for customers to transfer money between banks and to other banks, purchase credit and PLN tokens, make payments for cellphones, electricity, e-commerce, and credit cards bills, top-up e-money, linkAja, Go -pay, OVO, M-Tix, and electronic money, as well as open digital savings via smartphones. Everything can be done directly through several BNI e-banking such as BNI Mobile Banking, BNI ATM, BNI SMS Banking, BNI Internet Banking, BNI Phone Banking, Agen46, and BNI Debit Online.

LITERATURE STUDY

Literature review that will be used and related to this research consists of independent variables, dependent variables and intermediate variables as mediators of the independent variables to the dependent variable:

A. Innovation

Innovation is a process and/or development result of the utilization of a product/resource that has existed before, so that it has more value. The innovation process is greatly influenced by technological and scientific advances because these two things can make it easier to produce something new and different. Innovation can also be defined as new ideas, behavior, products, information and practices that are not widely known, accepted and used/applied, implemented by the majority of community members in a certain locality, which can be used or encourage changes to occur in all aspects of community life for the sake of always realizing improvements in the quality of life of each individual and all members of the community concerned (Mardikanto, 1993).

All ideas, new ways, or objects operated by someone as something new are innovations. New here is not simply a measure of time since the invention or first use of the innovation. What matters is the novelty in perception, or the subjective novelty of the thing in question for a person, which determines his reaction to the innovation. In other words, if something is considered new to someone, then it is an innovation (Nasution, 2004).

B. Electronic Banking

In the future, there will be a banking system with digital technology that not only performs the basic functions of banks as financial intermediary institutions and financial service providers, but also outside as financial advisors for their customers and can interact in real time through the mobile devices used by their customers. Financial services that are integrated with sectors outside the financial sector can be a threat as well as an opportunity for the existence of the traditional banking business run by banks. The conditions of this future scenario certainly have broad implications for the architecture of the financial system in the economy. (Lipton et al., 2016).

The banking service system using electronic banking is as follows (Widiyono, 2016):

1. ATM
2. Debit Card
3. Credit Card
4. Internet Banking
5. SMS Banking
6. Phone Banking
7. Electronic card

C. *Technology Acceptance Model (TAM)*

Technology Acceptance Model (TAM) is a model for predicting and explaining how technology users accept and use technology related to user work. The TAM model comes from a psychological theory to explain the behavior of information technology users based on belief, attitude, intention and user behavior relationships. TAM has 5 main constructs, i.e. (1) Perceived usefulness, (2) Perceived ease-of-use, (3) Attitude toward using technology (attitude), (4) Behavioral intention to use (intention), and (5) Actual technology use (actual use of technology).

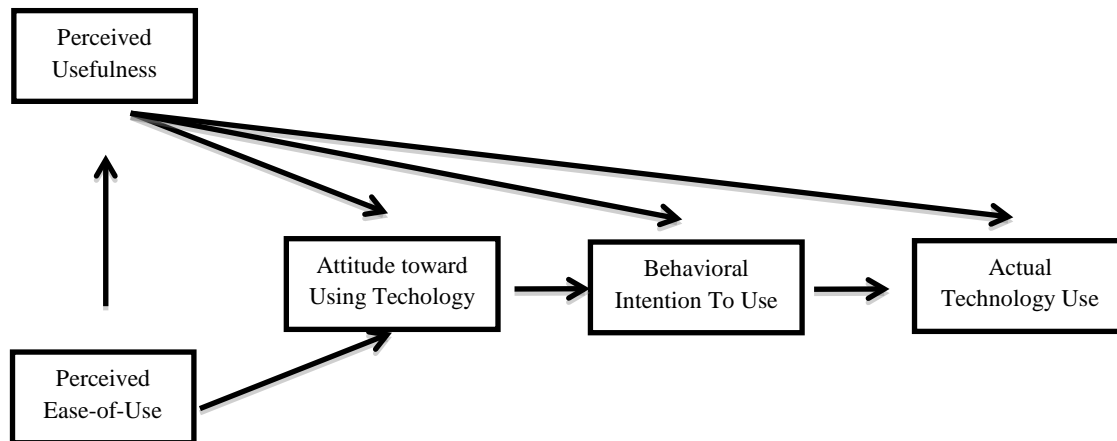


Figure 2.1 *Technology Acceptance Model*
Source: Jogianto (2008)

D. *Innovation and Diffusion Theory (IDT)*

Diffusion is a process by which innovation is communicated through certain channels from time to time among members of the social system. Meanwhile, innovation is an idea, habit, or object that is considered new by an individual or a group (Rogers: 1983). This theory indicates that when a new technological innovation is introduced, it goes through a series of stages before being widely adopted.

According to Rogers (1983), the innovation decision-making process is a mental process where a person/individual passes from the first knowledge of an innovation by forming an attitude towards innovation, until deciding to reject or accept, implement new ideas and confirm innovation decisions.

E. *Self-Efficacy*

Self-efficacy theory, also known as social cognitive theory, or social learning theory, refers to an individual's belief that he or she is capable of performing tasks. The higher your self-efficacy, the more confident you will be in your ability to succeed. Thus, in difficult situations, people with low self-efficacy are more likely to reduce their efforts or give up at once, while people with high self-efficacy will try harder to master challenges (Robbins and Judge, 2015).

The term self-efficacy was first introduced by Bandura in Psychological Review number 84 in 1986, Bandura argued that self-efficacy refers to the belief in the extent to which an individual estimates his or her ability to carry out a task or perform a task needed to achieve a certain result (Mawanti, 2011:31). Belief in all of these abilities includes self-confidence, adaptability, cognitive capacity, intelligence and capacity to act in stressful situations.

The concept of self-efficacy is actually the core of social cognitive theory put forward by Albert Bandura, which emphasizes the role of observational learning, social experience, and reciprocal determinism in personality development. According to Bandura (in Jess Feist & Feist, 2010:212) self-efficacy is a person's belief in his ability to exercise some form of control over one's own functions and events in the environment. Bandura also described Self Efficacy as a determinant how people feel, think, self-motivate, and behave.

MATERIALS AND METHODS

Research Location and Design

This research was conducted in Makassar City, with BNI e-banking users as the object of research. This research design is quantitative research type by conducting hypothesis testing. The data used are primary data using a questionnaire as a means of collecting basic data which is distributed to customers who use BNI e-banking services in Makassar.

Population dan Sample

Population is a generalization area consisting of objects/subjects that have a certain quantity and characteristics set by the researcher to study and then draw conclusions from (Sugiyono, 2010). The population in this research is all BNI customers in Makassar, consisting of savings, current and time deposits customers totaling 3,345,000. The sampling technique used in the study, random sampling, is a random sampling method in which each member of the population has an equal chance of being selected as a sample. Then to determine the number of samples from each customer using the sloving formula, in order to obtain a sample size of 100 respondents.

Method of Collecting Data

In obtaining data, information or various theories as support for this study, researchers use data collection techniques: Field research, using questionnaire data collection (questionnaire) and library research, i.e. collecting materials and information from this study sourced from literature/journals, books, written reports and other reference materials which form the theoretical basis of this research.

Data Analysis Method

This study uses partial regression analysis (Partial Least Square / PLS) to test the five hypotheses proposed in this study. Each hypothesis will be analyzed using Smart PLS 2.0 software to test the relationship between variables.

1. Partial Least Square (PLS) Method

According to Jogianto (2015:11) data analysis was performed using the Partial Least Square (PLS) method. PLS is a multivariate statistical technique that compares multiple dependent variables with multiple independent variables. PLS is one of variant-based SEM statistical methods designed to solve multiple regression when specific problems occur in the data, such as small study sample size, missing data and multicollinearity.

The choice of the PLS method is based on the consideration that in this study there are three latent variables which are formed by formative indicators and form a moderating effect. The formative model assumes that the construct or latent variables affect the indicator, where the direction of the causality relationship from the construct to the indicator or manifest (Ghozali, 2018). Furthermore, Ghozali (2018) stated that the formative model assumes that indicators affect the construct, where the direction of the causal relationship is from the indicator to the construct.

The PLS approach is based on analysis shifting from model parameter estimation measurement to relevant predictive measures. Thus the focus of analysis shifted from estimating and interpreting significant parameters to validity and accuracy of predictions.

2. Measurement of the Partial Least Square (PLS) Method

Estimation of parameters in PLS includes 3 things, i.e.: (Ghozali, 2018)

- a. Weight estimate used to create the latent variable score.
- b. Path estimate that connects between latent variables and the loading estimation between the latent variables and the indicators.
- c. Means and parameter locations (regression constant values, intercept) for indicators and latent variables.

To obtain these three estimations, PLS uses a three-stage iteration process and each iteration stage produces an estimation. The first stage produces a weight estimation, the second stage produces an estimation for the inner model and the outer model, and the third stage produces an

estimation of means and location (constants). In the first two stages the iteration process is carried out by approaching the deviation from the means (average) value. In the third stage, the estimation can be based on the original data matrix and or the weight estimation results and path coefficients in the second stage to calculate and locate the parameters (Ghozali, 2011).

3. Partial Least Square (PLS) Steps

The following are the steps of analysis with partials least square (Yamin, 2011: 23-26):

- a. Step One: Designing the Structural Model (inner model)
 At this stage, the researcher formulates a model of relationship between the constructs.
- b. Step Two: Designing the Measurement Model (outer model)
 At this stage, the researcher defines and specifies the relationship between latent constructs and their indicators, whether they are reflective or formulative.
- c. Step Three: Constructing Path Diagram
 The main function of building a path diagram is to visualize the relationship between indicators and their constructs and between constructs which will make it easier for researchers to observe the overall model.

RESEARCH RESULT

Outer Model Test Analysis

The measurement model (outer model) is a measurement model to assess the validity and reliability of the model. The measurement models are all used to test the validity and reliability of the research instrument, so that the measurement model is obtained through the interaction process of the Algorithm in Smart PLS 3.0.

Before analyzing the measurement model (outer model) in testing its validity and reliability, which is processed using Smart PLS 3.0, the Algorithm image in Smart PLS 3.0 will be revealed first which can be depicted as follows:

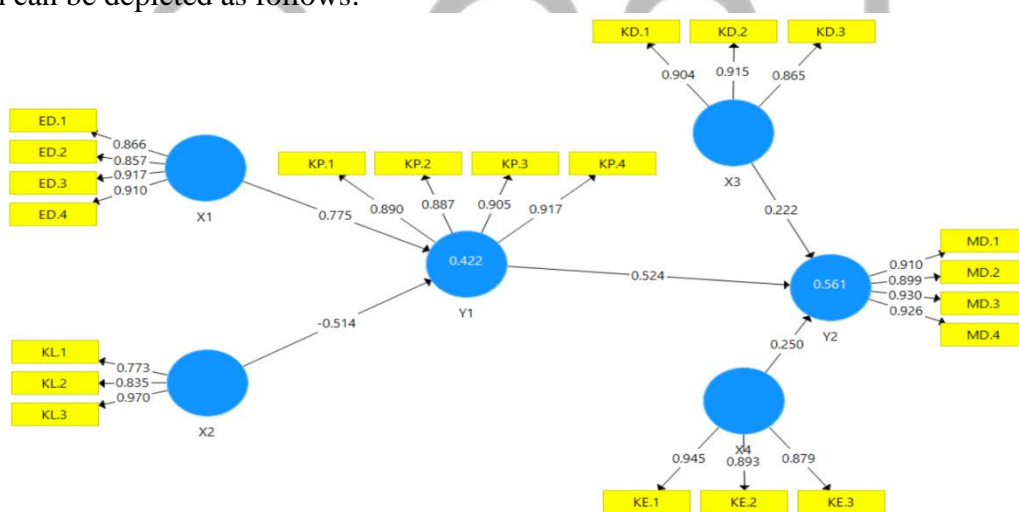


Figure 1
 Algorithm in Smart PLS 3.0

The structural model analysis (inner model) is a structural model to predict the causality relationship between latent variables. The structural model in Smart PLS 3.0 is evaluated using R2 for the dependent construct, path coefficient or t_{value} of each path for significant test between constructs in the structural model.

In connection with the description above, before testing the structural model in this study, a bootstrapping image can be presented which can be seen as follows:

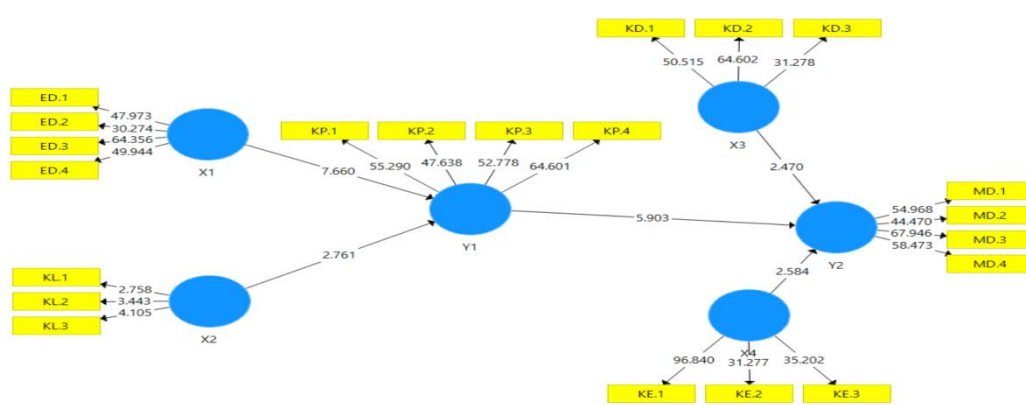


Figure 2
 Bootstrapping in Smart PLS 3.0

Based on the results of the path coefficients processed using Smart PLS 3.0, it can be described as follows:

1) The effect of perceived self-efficacy on ease-of-use of using BNI e-banking services

Based on the results of the path coefficient analysis processed using Smart PLS 3.0 on the ease-of-users of using BNI e-banking services, the coefficient value obtained is 0.775, this indicates that the higher the self-efficacy of the customer, the perceived ease-of-users of using the service BNI e-banking will continue to increase. It can be indicated that high self-efficacy of customers will affect user perceptions of using BNI e-banking services.

Then observed from the statistical value = 7,660 and pvalue of 0,000, because the statistical value is $7.660 > 1.96$ and pvalue is $0,000 < 0.05$, it means that perceived self-efficacy has a significant influence on the perceived ease-of-users of using e-banking BNI services. The results of this test indicate that the perceived self-efficacy has had a real effect in increasing the perceived ease-of-users of using BNI e-banking services.

2) The effect of complexity on the perceived ease-of-users of using BNI e-banking services

Based on the results of data analysis processed using Smart PLS 3.0, a coefficient value of -0.514 is obtained, this means that the higher the complexity, the lower the perceived ease of using BNI e-banking services. It can be indicated that complexity has an impact on the low perceived ease-of-users of using BNI e-banking services.

Then from the results of data analysis, it is obtained that $t_{value} = 2.761$ and pvalue of 0.006, where the $t_{value} = 2.761 > 1.96$ and besides, it has a sig = $0.006 < 0.05$. It can be said that there is a significant influence between complexity and perceived ease-of-users of using BNI e-banking services. It can be indicated that complexity can have a significant effect on the low perceived ease-of-users of using BNI e-banking services.

3) Perceived trust on perceived of usefulness of using e-banking services

The results of the research data analysis are the effect of trust on the perceived usefulness of using BNI e-banking services where the coefficient value is 0.222, it can be said that the higher customer trust, the perceived usefulness of using BNI e-banking services will increase. It can be indicated that the high level of trust will have an impact on the high perceived usefulness of using e-banking services at PT. Bank Negara Indonesia.

Then, observed from the t-statistic value of 2.470 and pvalue = 0.014. Because with a statistical value of $2.470 > 1.96$ and pvalue = $0.014 < 0.05$, it can be said that the perceived trust has a significant influence on the perceptions of usefulness of using BNI e-banking services, it can be indicated that the perceived trust has an effect on perceived of usefulness of using BNI e-banking services.

4) The effect of the perceived compatibility on the perceived of usefulness of using BNI e-banking services

The results of data analysis using Smart PLS 3.0 are the effect of perceived compatibility on the perceived usefulness of using BNI e-banking services, where the coefficient value is 0.250, it can be said that compatibility has a positive influence on the perceived usefulness of using BNI e-banking services. It can be indicated that the perceived compatibility has an impact on the high perceived usefulness of using BNI e-banking services.

Then observed from the statistical value of 2.584 which is greater than 1.96 and has a value of $t = 2.584 > 1.96$, it can be said that compatibility has a significant effect on perceived usefulness of using BNI e-banking services where it can be said that high perceived compatibility can have a significant effect in increasing perceived usefulness of using BNI e-banking services.

5) The effect of ease-of-use on perceived usefulness of using BNI e-banking services

The results of data analysis regarding the effect of perceived ease-of-use on the perceived usefulness of using BNI e-banking services obtained a coefficient value of 0.524. This means that there is a positive influence between ease-of-use and perceived usefulness of using BNI e-banking. It can be indicated that the higher the perceived ease-of-use, the higher the perceived usefulness of using BNI e-banking services.

Then, observed from the statistical value of 5.903 and $p\text{-value} = 0.000$, because of a statistical value of $5.903 > 1.96$ and $p\text{-value} = 0.000 < 0.05$, it can be said that the perceived ease-of-use has a significant effect on the perceived usefulness of using BNI e-banking services. Thus, it can be said that it empirically indicates that the perceived ease-of-use has a significant effect in increasing the perceived usefulness of using e-banking services at Bank Negara Indonesia.

DISCUSSION

1) Perceived self-efficacy against perceived ease-of-use of using BNI e-banking services

The results of testing the effect of perceived self-efficacy with perception of ease of using BNI e-banking services indicates that the high self-efficacy of each customer, particularly at PT. Bank Negara Indonesia Tbk, will cause customers to provide positive and significant perceptions of ease of using BNI e-banking services. It can be indicated that the existence of self-efficacy for each customer will lead to ease of using e-banking services at PT. Bank Negara Indonesia Tbk. This is based on the perception of respondents' answers, where there is customer trust of using e-banking services even though the bank has online instructions as a reference.

Then in the perception of the respondent's answers, where there are trust in e-banking services even though no one has told customers how to use e-banking. Furthermore, in distributing questionnaires, most customers believe in using e-banking services, even though they have never used an application and other than that, respondents' answers give the perception that overall customers trust in their knowledge to use e-banking services. Thus, it can be said that the high self-efficacy of customers of using e-banking services will have an impact on increasing the perception of convenience by customers of using BNI e-banking services.

Then seen from the perceptions made by Lacovou (2018) whose research found that self-efficacy has a positive influence on perceived usefulness. Meanwhile, the results of research conducted by researchers found that self-efficacy have a significant influence on the perceived ease of using BNI e-banking services. Thus it can be said that this study is in line with Lacovou's research results.

2) The effect of complexity on the perceived ease-of-use of e-banking services

Based on the results of the research that has been performed, it can be said that complexity has a negative impact on the perceived ease of using e-banking services. It can be concluded that the higher the perceived complexity, the lower the perception of customers of using e-banking services at Bank Negara Indonesia.

Then observed from the significant test results, it can be indicated that complexity has a negative effect on customer perceptions of using e-banking services where it can be said that the perceived complexity will have a significant effect on the low perceived ease of using e-banking services at PT BNI.

The results of research found by Lacovou (2018) indicate that complexity has a positive effect on the perceived ease of using BNI e-banking services. Furthermore, it can be said that the

findings obtained by researchers are not in line with those found by Lacovou, then in this study it is found that complexity has a negative effect on the perceived ease of using BNI e-banking services. This can be observed from the respondent's answer, that is, there are still customers who give the perception that using e-banking services requires a lot of effort. So that in this study it can be said that the hypothesis that has been previously proposed is proven.

3) The influence of trust on perceived of usefulness of using BNI e-banking services

The results of the analysis of research data that have been stated indicate that the perceived trust has a positive influence on the usefulness of using BNI e-banking services. It can be indicated that the higher the customer's perception of the perceived trust will have an impact on increasing the usefulness of using BNI e-banking services.

Then, observed from the results of the hypothesis test, it shows that there is a significant effect on perceived usefulness of using BNI e-banking services. It can be said that the perceived trust will have a significant effect on the increase of perceived usefulness of using BNI e-banking services.

The perception of respondents' answers regarding the trust felt by customers is that transactions with e-banking services can be trusted and besides that most customers who trust in e-banking transactions regarding security systems can further guarantee that there is no theft of customer funds and besides that, trust in e-banking facilities banking due to transparency from the bank by providing notification of transactions directly to customers.

This study is in line with the findings of a study conducted by Wijayanti (2009) which found that a person's trust proves a significant influence on the perceived ease of using e-banking services. Thus, this research is not in line with what the researchers found, where the researchers found that trust had an impact on the high perceived ease of using BNI e-banking services. Furthermore, this study is not in line with that found by Wijayanti (2009).

4) Perceived compatibility on perceived of usefulness of using BNI e-banking services

The results of data analysis in this study indicate that compatibility has a positive impact on the perceived usefulness of using BNI e-banking services. From these results, it can be said that the higher the compatibility will increase the usefulness of using BNI e-banking services.

Then from the results of hypothesis testing, it is found that the perceived compatibility has a significant effect on the use of BNI e-banking services. It can be said that the perceived of compatibility has a significant effect in increasing the perceived usefulness of using e-banking services offered by BNI companies.

The perception of respondents' answers regarding the compatibility of e-banking services at BNI has been categorized as good, where using e-banking services has facilitated the distribution of all bank transaction activities and in addition to the customer's perception that overall the use of e-banking services is in accordance with the transaction needs banks and other than that, every transaction in the use of e-banking is in accordance with the expectations and desires of BNI customers. From the results of this study accept the proposed hypothesis.

5) The effect of perceived ease-of-use on the usefulness of using BNI e-banking services

The results of the analysis of research conducted on the effect of perceived ease-of-use on the usefulness of using BNI e-banking services. Where in this study found that there is a positive effect of perceived ease-of-use on the usefulness of using e-banking services. This can be indicated that the higher the perception of ease-of-use, the higher the usefulness of using BNI e-banking services.

Then in testing the research hypothesis that has been performed that the perceived ease-of-use of e-banking services has a significant effect on the perceived of usefulness of using e-banking services. This can be indicated that the perceived ease-of-use has a real impact in increasing the perceived usefulness of using e-banking services at BNI. This is based on respondents' answers where e-banking services have increased customer efficacy of using banking products as well as customer perceptions that e-banking services can facilitate the use of banking products. Besides, in the perception of the respondents' answers, customers have stated that e-banking service makes it easy to use for transactions and sending money easily and quickly. In connection with the

description above, it can be said that the hypothesis of this research that has been conducted is proven.

CONCLUSIONS AND SUGGESTIONS

Based on the results of the research data analysis that has been conducted, several conclusions can be presented as follows: Perceived efficacy of having an impact in increasing the perceived ease-of-use of using BNI e-banking services. It can be indicated that high perceived self-efficacy from customers will have a real effect in increasing the perception of ease of using BNI e-banking services. Complexity has a negative effect on later perceptions of using e-banking services. It can be indicated that the complexity that occurs significantly affects the low level of customer perception of the ease of using e-banking services. The effect of perceived trust has an impact on increasing perceptions of usefulness in the use of BNI e-banking services, where high level of trust by customers will have a significant effect on increasing perceived ease-of-use of e-banking services. The effect of perceived compatibility on perceived of usefulness of using BNI e-banking services. These results indicate that high compatibility has a significant impact on increasing perceived of usefulness of using BNI e-banking services. The effect of perceived ease-of-use has an impact on perceived of usefulness of using BNI e-banking services. It can be indicated that the perceived ease-of-use has had a significant effect on increasing the use of BNI e-banking services.

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REFERENCES

Journals

- Ahmad, A. E. M. K., & Al-Zu'bi, H. A. (2011). *E-banking functionality and outcomes of customer satisfaction: an empirical investigation. International journal of marketing studies*, 3 (1), 50-65.
- Barusman, M. Y. S. (2013). Pemanfaatan E-Banking dalam Industri Perbankan ditinjau dari Structure-Conduct-Performance Paradigm di Indonesia. *Jurnal Manajemen dan Bisnis*, 1(1).
- Cortinas, M., Chocarro, R., & Villanueva, M. L. (2010). Understanding Multi-Channel Banking Customers. *Journal of Business Research*, 63(11), 1215–1221
- Dootson, P., Beatson, A., & Drennan, J. (2016). Financial institutions using social media – do consumers perceive value=. *International Journal of Marketing Bank*, 34(1), 9–36.
- Fiyah, N., Mayangky, N., Hadianti, S., & Riana, D. (2019). Analisis Technology Acceptance Model Pada Aplikasi Platform Perdagangan Elektronik Di Kalangan Mahasiswa. *Jurnal Teknik Informatika*, 12(1), 59-68. doi:<https://doi.org/10.15408/jti.v12i1.10507>
- Lacovou, Eva. 2018. *Perception of Usefulness for Digital Banking (An Application of the Technology Acceptance Model)*. Dissertation. Leads University Business School.
- Mawanti, Dwi. 2011. Studi Efikasi Diri Mahasiswa Yang Bekerja Pada Saat Penyusunan Skripsi (Semarang Fakultas Tarbiaya).
- Ni Nyoman Kerti Yasa, Luh Putu Rara Ayu Ratnaningrum, dan Putu Gde Sukaatmadja. (2014). *The application of Technology Acceptance Model on Internet Banking users in the city of Denpasar*". Dengan menggunakan variabel yang terdiri dari *Perceived ease-of-use, Perceived usefulness, Attitude toward using* dan *Actual usage*.

Book

- Feist, J. & Gregory J. Feist. 2010. Teori Kepribadian Edisi ketujuh. Jakarta: Penerbit Salemba Empat
- Ghozali, Imam. 2011. Aplikasi Analisis Multivariate Dengan Prgoram SPSS. Semarang: Universitas Dipenogoro.
- Ghozali, Imam. 2018. Aplikasi Analisis Multivariate dengan Program IBM SPSS 25. Badan Penerbit Universitas Diponegoro: Semarang
- Jogiyanto. 2008. Sistem Informasi Keperilakuan.(ed. revisi). Yogyakarta: Andi.
- Lipton, Laura., dan Deborah Hubble. (2016). Sekolah Literasi Perencanaan dan Pembinaan.Bandung: Nuansa Cendekia Publishing & Printing.
- Mardikanto, Totok. 1993. Penyuluhan Pembangunan. Surakarta : UNS Press
- Nasution, M. N. 2004. Manajemen Mutu Terpadu. Jakarta: Ghalia Indonesia.
- Oetomo, B. S. D., & Sutedjo, B. (2003). Terminologi Populer Sistem Informasi. Yogyakarta: Graha Ilmu.
- Robbin & Judge. 2015. Perilaku Organisasi Edisi 16. Jakarta. Salemba Empat.
- Rogers, E. M. (2010). *Diffusion of innovations. Simon and Schuster.*
- Sugiyono. 2016. Metode Penelitian Kuantitatif Kualitatif dan RD. Bandung: Alfabeta.
- Widiyono, Tri. 2016. Operasional Transaksi Produk Perbankan Di Indonesia. Ghalia Indonesia, Bogor.
- Yamin, Sofyan dan Heri Kurniawan. 2011. Generasi Baru Mengolah Data Penelitian dengan Partial Least Square Path Modeling : Aplikasi dengan Software XLSTAT, SmartPLS, dan Visual PLS. Jakarta Salemba Infotek.

