Determinant Factors of E-Banking Adoption (Perspective of E-Banking User of Bank BNI Parepare Branch)

Busrin Raihana Masud, Darwis, Syamsuddin, Mediaty Faculty of Economics and Business, Hasanuddin University South Sulawesi, Indonesia

Abstract:- The implementation of the banking sector is expected to increase the adoption of e-banking as digitalization of banking activities from the perspective of users, namely customers and employees at Bank BNI 46 so as to increase the productivity of bank performance as meeting customer needs, work quality. and service quality. This study was conducted with the aim of knowing the factors that influence the adoption of e-banking as an intervening variable between integrated information systems, technological innovation, ease of use, and attitudes towards bank performance in terms of the perspective of e-banking application users. The unit of analysis of this research is the banking industry. The banking company used as the object of research is Bank BNI 46 Parepare Branch. The method of data collection was carried out by survey or self-management as the primary data collection method by giving questionnaires to respondents using the purposive sampling technique. The questionnaires distributed were 220 samples to e-banking users, namely employees and permanent customers of Bank BNI 46 Parepare Branch who actively use e-banking system applications (ATM, Mobile Banking, SMS Banking, and Internet Banking). The population of 152 samples consisted of customers and bank employees through the google form media which was a bit difficult to reach due to the covid-19 pandemic. Data were analyzed using SEM from the PLS 3.0 platform. The results of the study with a significance of 5% showed a significant effect that integrated information systems, ease of use, and attitudes towards e-banking adoption. While the technological innovation variable has no significant effect on the adoption of e-banking. The adoption of the e-banking system as an intervening variable has a positive and significant effect on banking performance. This research is supported by the theory (TOE) Technology, Organization, Environment and (TAM) Theory Technology Acceptance Model which theoretically can provide evidence on the factors that influence the adoption of e-banking from the perspective of users in terms of technology, organization, and environment.

Keywords:- Integrated information systems; technological innovation; perceived ease of use; attitudes; e-banking adoption.

I. INTRODUCTION

Banks play a very important role in financial markets because they are the largest suppliers of credit and draw a large part of the savings from the population. Banking is necessary for the economic development of all countries in the world because an advanced banking system holds the key as well as serves as a barometer of a country's economic health. The development of science and technology has an impact on the development of the banking sector, in this case, integration plays an important role in supporting the activities of banking activities as one of the important factors in a country's economy. In simple terms, banks are financial institutions that have two main functions, namely collecting funds from the public and channeling them back into the form of loans. Bank Negara Indonesia (BNI) is the oldest commercial bank in the history of the Republic of Indonesia. Bank BNI was established on July 5, 1946, and is the circulation bank or central bank responsible for issuing and managing the currency of the Republic of Indonesia. Currently, BNI has 914 branch offices in Indonesia, one of which is the Parepare city branch which has 9unit branch offices. In 2013 BNI positioned its services at a higher level. BNI also launched an e-banking system application that makes it easy for us to transact without having to go to an ATM, we can make transactions directly online via the internet network, if we want to transfer to other banks or to other banks, and also if we want to make virtual payments and some other features, all can be done through the e-banking application. Therefore, Bank BNI realizes that people who want unlimited services and have comfortable, fair, and modern facilities, and BNI bank including the Parepare branch has an e-banking application service that prioritizes product quality by providing superior services and facilities that are not owned by competitors which of course will result in customer satisfaction. In this study, we will analyze how many adoptions of e-banking applications are used at the BNI 46 Parepare branch, the perceptions of bank employees and customers regarding the acceptance of technological innovations and integrated information systems in e-banking services. In particular, the banking sector and more specifically, retail banking over the past two decades have witnessed tremendous changes globally, to meet the growing sophistication created by massive technological advances and changing user demands both customers and employees of the bank. Accelerated with the advent of the internet and its rapid adoption and penetration, various innovative information technology delivery channels for the banking sector have been created.

As a result, competition has been redefined by the effective use of these electronic payment channels and systems, including Phone/Mobile banking, Automated Teller Machines (ATMs), Electronic Funds Transfer, and Internet Banking (Chedrawi, Harb, and Saleh 2019). Good banking activities will win the public's trust and thus will increase the trust of its users and other parties related to banking activities, either directly or indirectly. Digital finance facilitated by electronic banking is critical to realizing the development goals of developing countries. The success of service innovation in the field of electronic banking is highly dependent on the extent of the perceptions and consumption patterns of the intended users, the service, the integration strategy of the latest technological innovations in the banking sector, which seems important for banking development and sector sustainability at the national level The success of e-banking innovation in banking is highly dependent on the perceptions and consumption patterns of targeted service users. With the inclusion of technology. banks should not ignore the importance of adopting new technologies because the manual and electronic banking complement each other. Banking performance is not enough to measure performance in terms of finance alone but needs to be balanced with non-financial measurements, to make it easier to achieve the desired target, many banks are competing to take advantage of technological sophistication by switching to the adoption of e-banking. The reason is about believing that it is easier to use conventional financial systems with paper and hand files, and completely convenient for employees. More explicitly, is that there are clear requirements for positive attitudes and perceptions of BNI 46 bank employees towards banking progress if an effective e-banking framework system is to be implemented. Another reason is because utilizing file ebanking technology is quite new to employees, as employees do not have full skills or system awareness. It was revealed that employees and customers of BNI 46 bank can adopt and actualize the e-banking system even though they continue to use traditional manual procedures, only if they believe that the new system is easy to use and helps them achieve efficiency in their work.

II. AIM OF RESEARCH

This study aims to examine the factors that influence the adoption of e-banking and technology acceptance, namely the Technology Acceptance Model (TAM) as the basic model which includes the independent variables of integrated information systems, technological innovation, ease of use, and attitudes. This research also refers to the Technology Organization Environment Theory (TOE). TOE theory is a theory that is often used to introduce new technology in analyzing technological, organizational and environmental factors, one of which is the adoption of e-banking on banking performance.

III. METHOD OF RESEARCH

This research is explanatory research that aims to show an overview of the factors that influence banking performance with independent variables consisting of integrated information systems, technological innovation, and ease of use and attitudes. Furthermore, this study uses the variable adoption of e-banking as the intervening variable and bank performance as the dependent variable. The samples in this research are employees and permanent customers of Bank BNI46 Parepare Branch who actively use e-banking system applications (ATM, Mobile Banking, SMS Banking, and Internet Banking). The method of data collection in this research is to use a questionnaire (questionnaire), which is a data collection technique carried out by giving written questions to respondents and these questions will be answered based on the Likert scale technique. The questionnaire that was distributed contained a structured list of questions addressed to respondents with a view to obtaining information related to integrated information systems, technological innovation, ease of use, attitudes, e-banking adoption, and bank performance. Individual respondents were asked to choose one answer by marking the answer options provided on the questionnaire and then analyzed using Structural Equation Modeling (SEM) Partial Least Square (PLS) analysis on SmartPLS 3.2.7 software version Windows 11.

IV. RESULT AND DISCUSSION

Based on the respondent's data, information was obtained regarding the respondent's profile related to the position, age, gender, experience of using the application, recent education, and features used in e-banking adoption. The following is a description of the respondent's profile according to the data filled in the distributed questionnaire. The number of questionnaires distributed was 220 copies. The returned and completely filled out the questionnaire was 152 copies, meaning that 69 copies of the questionnaire were not returned. The reason for not filling in was because some employee and customer respondents were difficult to find due to the COVID-19 pandemic, some were on holiday and some had inappropriate customer addresses. Questionnaire thatused in the analysis of the research model as many as 152 questionnaires.

Analysis of the measurement model (outer model) aims to measure the validity and reliability of the model through the Algorithm process in SEM Smart PLS 3.0 analysis. The measurement model (outer model) includes validity tests (convergent validity and discriminatory validity). As a predictive model that does not use a certain distribution to estimate parameters and predict causality relationships. Evaluation of the PLS model is done by evaluating the outer model and inner model. Here is the outer model:

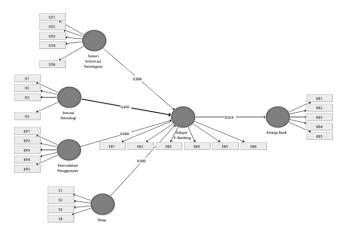


Fig. 1: Evaluation of the results of the outer model from the results of the Smart PLs 3.0 algorithm

Average Variance Extracted (AVE), describes the average value of the variance or discriminant extracted from each indicator, so that the ability of each item to share measurements with others can be known. A good Convergent value can be indicated by the Average Variance Extracted value equal to or above 0.5. The results of the Average Variance Extracted (AVE) are as follows:

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	Validasi Konvergen
Integrated information systems	0.085	0.053	0.064	Valid
Technological innovation	0.058	0.032	0.116	Valid
Perceived ease of use	0.039	0.025	0.031	Valid
Attitudes	0.001	0.002	0.020	Valid
e-banking adoption	0.032	0.011	0.029	Valid
Bank Performance	0.037	0.002	0.078	Valid

This study also looks at the value of the standardized root mean square residual (SRMR), which shows the goodness of fit that can be expected if the model is estimated in the population. Smaller SRMR value to indicate a close fit model. It is based in the correlation matrix. Thus, it is possible to assess the mean magnitude of the difference between the observed and expected correlations as an absolute measure of the (model) fit criterion. Finally, complete content and organizational editing before formatting. Please take note of the following items when proofreading spelling and grammar:

	Original Sample (O)	Sample Mean (M)	
Saturated Model	0,037	0,035	
Estimated Model	0,040	0,038	

SRMR is used to represent the difference between the observed correlation and the model expressing the correlation matrix. used to represent the difference between the observed correlation and the model expressing the correlation matrix. Based on the table above, it can be seen that the saturated model has an SRMR value of 0.037. As for the estimated model which has a value of 0.040. Values < 0.10 or 0.08 are considered suitable. SRMR is a measure

of goodness of fit for PLS can be used to avoid model specification errors.

Tests using the inner model test can be used to evaluate the relationship between latent constructs that have been hypothesized in the study. Based on the output of PLS version 3.0, the following image is obtained:

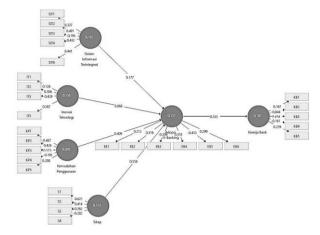


Fig. 2: Testing using the inner model test on the results of Bootstrapping smart PLS 3.0

Based on the picture above and after processing the data, the results of the processed path coefficient data with Smart PLS 3.0 can be presented, which are as follows:Path Coefficients (Mean, STDEV, T-Values, P-Values) test the hypotheses that have a direct effect on each variable as followsThe effect of integrated information systems on the use of e-banking at Bank BNI 46 Parepare City Branch (H1), Effect of Technological Innovation on the use of e-banking at BNI 46 Parepare City Branch (H2), Effect of perceived ease of use one-use -banking at Bank BNI 46 Parepare City Branch (H3), Influence of attitudes towards the use of e-banking at BNI 46 Parepare City Branch (H4), Effect of E-Banking Adoption on Bank Performance at BNI 46 Parepare City Branch.

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDE V)	P Values	Ket
Integrated information systems-> e-banking adoption (H1)	0.445	0.369	0.229	0.443	0.000	Accepted
Technological innovation -> e-banking adoption (H2)	-0.100	-0.023	0.117	3.853	0.594	Rejected
Perceived ease of use -> e-banking adoption (H3)	0.386	0.383	0.083	0.336	0.000	Accepted
Attitudes -> e-banking adoption (H4)	0.386	0.386	0.386	0.686	0.001	Accepted
e-banking adoption -> Bank Performance (H5)	0.534	0.461	0.088	1.855	0.007	Accepted

Based on the table above, it can be concluded that the hypothesis test that has a direct influence on each variable is as follows:

- The results of the analysis that have been processed using smart PLS 3.0 show that the path coefficients ($\beta = 0.000$, t = 0.443, p = 0.000 < 0.05). It can be concluded that the integrated information system has a positive and significant impact on the use of e-banking. The integrated information system is the most important in supporting the maximum and effective e-banking adoption process. According to respondents, it will have an impact on the performance of the bank itself. with more sophisticated information technology capabilities, they will be able to integrate and use their information resources.
- The results of the analysis that have been processed using smart PLS 3.0 obtained path coefficients of (β = 0.594 t = 3.853, p = 0.594 > 0.05). It can be concluded that technological innovation does not affect the use of ebanking. Technological innovation indicates that the average respondent's answer does not agree that the use of e-banking is influenced by the latest technological innovations because the application of mobile banking or internet banking has been implemented for a long time or has been automation. The use of banking applications is more aware that using e-banking has become a habit and is not the latest innovation being implemented.
- The results of the analysis that have been processed using smart PLS 3.0 obtained path coefficients of (β = 0.000 t = 0.336, p = 0.000 <0.05). It can be concluded that the ease of use or perceived ease of use has a positive and significant influence on the use of e-banking
- The results of the analysis that have been processed using smart PLS 3.0 obtained path coefficients of (β = 0.001 t = 0.686, p = 0.001 <0.05). It can be concluded that attitude has a positive and significant influence on the use of e-banking.
- The results of the analysis that have been processed using smart PLS 3.0 show that the path coefficients (β = 0.007, t = 1.855, p = 0.007 <0.05). It can be concluded that the adoption of e-banking has a positive and significant effect on bank performance. Adoption of e-banking is often used in banking activities, especially users of mobile banking applications at Bank BNI 46 Parepare Branch according to respondents, the application of banking applications has shifted from traditional systems (offline) to modern systems (online) such as the use of e-banking adoption as the main part of their financial transaction process, therefore, the adoption of e-banking as an intervening variable is of paramount importance to bank performance in banking activities.

V. DISCUSSION

A. The Effect of Integrated Information Systems on E-Banking Adoption.

The results of this study found that the integrated information system variable affected bank performance through the adoption of e-banking. This means that the first hypothesis which states that an integrated information system has a positive and significant effect on bank performance through the adoption of e-banking can be tested empirically, so it can be accepted. The findings of this

study indicate that the integrated information system significantly influences the adoption of e-banking at Bank BNI 46 Parepare Branch. The meaning of the findings of this study shows that an integrated information system can better influence the process of using e-banking in banking, especially BNI bank. These results are evidence that the integrated information system makes it easier for users, namely BNI bank employees and customers, to process ebanking-based banking transactions so that utilizing internet banking since the e-banking framework system can increase the productivity of their banking activities. This is reinforced by expansive research that provides evidence of a significant effect of perceived usefulness on e-banking adoption, such as research conducted by (Yang et al. 2018) and (Sadiq Sohail and Shanmugham 2003) which concludes that integrated information systems have a positive and negative effect. significant impact on the level of e-banking adoption and is the most important part in supporting the maximum and effective e-banking adoption process. alone. So to achieve maximum performance in the use of ebanking, it is necessary to use an integrated and maximum information system because the more employees and active customers whose electronic transactions are also more profitable for the bank. The positive influence between integrated information systems and bank performance through the adoption of e-banking is also supported by the TOE (Technology organization environment) theory. According to TOE theory, company decisions that encourage adopting or using new technology are influenced by technological, environmental and organizational factors themselves (Tornatzky& Fleischer, 1990). One of the technological factors includes an integrated information system. The BNI 46 bank integrated information system is very important because it is the main factor in the success or failure of e-banking adoption. After all, the use of e-banking requires data flow. . Thus, from the findings supporting these results, it may be considered that there is a significant effect of the integrated information system. The theory that supports the TOE theory, namely the TAM (Technology Acceptance Model) theory provides a theoretical basis to determine the factors that influence the acceptance of a technology in an organization.

B. Technological Innovations Have a Positive and Significant Impact on Bank Performance Through the Adoption of e-banking.

The test results show that the second hypothesis proposed is rejected. This means that empirically technological innovation does not have a positive effect on e-banking adoption as evidenced by the test results which do not show a significant value. The findings of this study indicate that innovation does not significantly affect the adoption of e-banking at Bank BNI 46 Parepare Branch. These results are evidence that introducing something new as an indicator of innovation in banking is not something new, but it has been implemented for a long time, from the perceptions of customers and employees of the BNI Parepare branch of the bank, the quality of service in banking can be effectively provided not only by adapting new technologies such as online banking features, smart cards, and utilizing technology-based tools, but there must also be development of systems that have been adopted

previously. This shows that there is a need for other support such as a good understanding of technology systems to be able to convince every customer and employee that an understanding of the limitations of online banking and employee perceptions is needed. Most respondents tend to feel that the adoption of e-banking in banking activities, especially in internet banking services, requires updating of existing technology to be better in terms of professional and userfriendly design. The results of this study are supported by research conducted by (Orji et al. 2018) showing that technological innovation has no significant effect on technology adoption in using the e-banking system. Innovation alone is not enough to make someone (user) able to use an e-banking system well. Requires sufficient knowledge and experience so that all can obtain maximum results. This research is not in line with research conducted by (Magboul and Abbad 2018) and (Anshari and Payangan, 2020) which states that technological innovation has a positive effect on company performance in using or implementing a system, innovation is the act or process of introducing a new thing such as technology adoption. new, so innovation is a tool to provide change to increase market share. In general, the results of hypothesis testing in this study are not in line with the TOE (Technology Organization Environment Theory) theory by (Tornatzky& Fleischer, 1990). According to (Tornatzky& Fleischer, 1990) three factors encourage companies to use technology, namely technological, organizational and environmental factors, from internal environmental factors including technological innovation with creative ideas to create or find the best way for digitalization-based transactions and services such as the adoption of e-commerce. -banking. This theory assumes that the TOE theory (Technology Organization Environment Theory) has implications for the problem-solving ability of the banking sector through structured thinking stages to take the best alternative in technological innovation (Burn and Szeto 2000). The technological innovations owned by Bank BNI 46 Parepare Branch are not enough to encourage them to use e-banking adoption as a barometer of the success or failure of banking companies in facing competition in maintaining competitive advantages such as technology that changes very quickly along with new products, processes and new services from competitors.

C. Perceived ease of use has a Positive and Significant Effect on Bank Performance Through the Adoption of e-banking.

The results of this study found that the perceived ease of use variable had a positive and significant effect on bank performance through the adoption of e-banking. This means that the third hypothesis which states that perceived ease of use affects bank performance through the adoption of e-banking. Most respondents tend to feel that the adoption of e-banking has changed the boundaries of service banking and increased the speed of banking services for customers in various banking sectors. Thus, on the basis of ease of use, customers and bank employees will continue to use e-banking in the process of activities and transactions at Bank BNI 46 Parepare Branch because it is considered efficient. Customer perceptions of the ease with which bank online systems such as mobile and internet

banking can be used feel that online services combined with the cooperation of bank employees can improve service quality, perceived quality leads to customer loyalty which in turn generates luck for the bank. In general, the results of hypothesis testing in this study are supported by the theory of TAM (Technology Acceptance Model) which provides a theoretical basis to determine the factors that influence the acceptance of technology in an organization. This is in line with the assumption (Diatmika et al. 2016) and (Khan, Lalitha, and Omonaiye 2013), revealing that one of the behaviors regarding ease of use is adopting advanced technology such as online banking features and utilizing technology-based tools which are considered very influential. This study is in line with research (Revathy and Anitha 2018) and (Alden Riyadh 2017) suggesting that the factor that directly affects the acceptance of information technology is perceived usefulness which is defined as the user's perception of the usefulness of information technology and is indirectly influenced by factors perceived ease of use and perceived enjoyment are defined as user perceptions of ease and comfort. Convenience in using information technology systems such as in the adoption of e-banking. Customers can carry out their banking activities not only when they want to but also from the convenience, comfort, confidentiality and security of their transactions easily using the internet or other networks.

D. Attitude has a positive and significant impact on bank performance through the adoption of e-banking.

The results of this study found that the attitude variable had a positive and significant effect on bank performance through the adoption of e-banking. This means that the fourth hypothesis which states that attitudes affect bank performance through the adoption of e-banking can be tested empirically, so it can be accepted. The results of this test indicate that the adoption of e-banking in banking activities is supported because of the attitude as an evaluation of trust (belief) or positive feelings from users if they have to perform a behavior which will be determined by the level of individuals believing in the usefulness of a particular system to encourage their performance. hopes to take advantage of certain systems such as the adoption of ebanking. User attitudes in the e-banking system change at every stage of time by taking better and different actions than before, this process will strengthen banking performance but must be supported by the use of technology. So, user attitudes are strongly influenced by foresight, creativity, environmental changes within the scope of the banking sector, such as users of e-banking services at Bank BNI 46 Parepare Branch. The positive attitude of users is one of the factors that can be considered in the context of using e-banking as a banking transaction process, such as research that has been conducted by (Magboul and Abbad 2018) and (Mak 2014) found that attitude is a construct to allow the appearance of an activity related to with work attitudes, work attitudes that every bank employee must have in their work are: cooperation, discipline, honesty, accessing and organizing information, responsibility, effectiveness efficiency and and independence. Attitude is one of the factors that can influence the adoption of e-banking is the attitude of users towards the benefits and ease of accessing the technology

as a reasoned action in the context of technology users. So the attitude of users of e-banking applications towards bank performance is an action to provide perceived usefulness as an individual's level of belief in the usefulness of a particular system. The significant influence between the attitude variable and bank performance through the adoption of e-banking is also supported by the theory of TAM (Theory Technology Acceptance Model) which explains that attitude is a person's perception or view of the beliefs of others that will affect interest in doing or not doing the current behavior. considered. That is, attitude is one of the considerations for customers and employees whether they want to use e-banking applications or not in their banking activities and transactions. In general, the results of testing the research hypothesis are supported by the technology acceptance model.

E. The adoption of E-Banking has a positive and significant effect on Bank Performance.

Referring to the data from this study, the variable adoption of e-banking has a positive and significant effect on bank performance. This means that the fifth hypothesis which states that the adoption of e-banking has a direct effect on bank performance can be tested empirically. This means that there is a positive influence between the adoption of e-banking and bank performance at Bank BNI 46 Parepare Branch. The adoption of e-banking in this study is defined as an electronic system that provides banking services through virtual means, not the traditional approach that relies on physical bank branches. So ebanking involves providing banking transactions or services to individual and corporate clients via the internet. Channels of e-banking that have been implemented by the BNI 46 Parepare branch, such as ATM (Automated Teller Machine) or Automated Teller Machines, Phone Banking, Internet banking, and SMS/m-Banking, which are the development of digital technology that transacts sustainably and allows users transact directly, this method can be felt by respondents. The results of this test indicate that the adoption of e-banking inBanking activities at Bank BNI 46 Parepare Branch can increase the productivity of the bank's performance to meet customer needs, work quality, and service quality. The results of this study are in line with research conducted (Revathy and Anitha 2018) and supported by research (Chedrawi, Harb, and Saleh 2019) showing that the role of e-banking adoption is very important because without e-banking no bank can work. Ebanking is several important and major changes that affect bank performance based on the structure and function of the bank from time to time. Advanced technology such as internet banking has a positive impact on banking performance in terms of improving internal processes, competition, customer service, and overall bank performance. When e-banking is implemented properly and maximally, it will provide positive benefits to banking performance both financially and non-financially, as seen from the current bank performance changing due to advances in e-banking technology. The significant influence between e-banking adoption and banking performance is supported by the TOE (Technology organization environment) theory. According to TOE theory, company decisions that encourage adopting or using new technology

are influenced by technological, environmental, and organizational factors themselves (Tornatzky& Fleischer, 1990). One of the technological factors includes the adoption of e-banking. TOE (Technology Organization Environment Theory) argues that the technological capability of a company in terms of e-banking adoption is the ability of an organization to use electronic transactions and services as increasingly sophisticated resources so that Information technology (IT) plays an important role in supporting process performance. banking, therefore ebanking technology refers to the ability of banks to effectively transform technology into the ability to enhance competitive forces and drive organizational growth through adjustment, reconfiguration, and integration (Ullah and Bagh 2019). Respondents thought that convenience, low transaction costs, remaining competitive, reducing queues at the bank, and having additional channels to increase income were the main considerations for the use of ebanking at Bank BNI 46 Parepare Branch as users can help feel the greater impact of e-banking. banking on bank performance.

VI. CONCLUSIONS AND SUGGESTION

This study was conducted to know the effect of ebanking adoption as an intervening variable between integrated information systems, technological innovation, perceived ease of use and attitudes towards bank performance in terms of the perspective of e-banking application users. These results are evidence that an integrated information system as a level of connectivity relationship between information systems that involves various banking functional units as well as those that are externally integrated makes it easier for e-banking users to transact to improve overall bank performance. The perceived ease of use and attitudes towards bank performance are evidence that users tend to feel that the adoption of e-banking has changed the boundaries of banking services and increased the speed of banking services, for customers and bank employees will continue to use electronic banking in the process of activities and transactions at Bank BNI 46 Parepare Branch because it is considered efficient. The adoption of e-banking in banking activities is supported because of the attitude as an evaluation of trust (belief) or positive feelings from users, both customers and bank employees, if they have to carry out behaviors that will be determined as the level of individuals believing in the usefulness of certain systems to encourage their performance, confidence can encouraging hope to take advantage of certain systems such s the adoption of e-banking. The adoption of e-banking in this study, which is a web-based banking system, as an electronic system using the internet that provides banking services through virtual facilities, is evidence that the adoption of e-banking in banking activities from the perspective of users, namely customers and employees at Bank BNI 46 Branches Parepare can increase the productivity of bank performance as fulfillment of customer needs, quality of work, and quality of service.

Results Based on the analysis and discussion, several suggestions can be put forward that can be considered both for scientific development, for company leaders, for researchers, and other related parties as follows: research a wider scope, for example using several bank branch offices BNI 46 throughout Indonesia as the population where the study takes a larger sample, this aims for better data accuracy in research. Also for further researchers, can consider conducting qualitative research models with the process of collecting data through observation and direct interviews with respondents.

REFERENCES

- [1.] AlKailani M. Factors Affecting the Adoption of Internet Banking in Jordan: An Extended TAM Model. Journal of Marketing Development & Competitiveness. 2016 Apr 1;10(1).
- [2.] Al-Smadi MO. Factors affecting adoption of electronic banking: An analysis of the perspectives of banks' customers. International journal of business and social science. 2012 Sep 1;3(17).
- [3.] Burn JM, Szeto C. A comparison of the views of business and IT management on success factors for strategic alignment. Information & management. 2000 Jun 1;37(4):197-216.
- [4.] Chedrawi C, Harb B, Saleh M. The E-banking and the adoption of innovations from the perspective of the transactions cost theory: Case of the largest commercial banks in Lebanon. InICT for a Better Life and a Better World 2019 (pp. 149-164). Springer, Cham.
- [5.] Davis FD. A technology acceptance model for empirically testing new end-user information systems: Theory and results (Doctoral dissertation, Massachusetts Institute of Technology).
- [6.] Khan HU, Ahmad S, Abdollahian M. Supply chain technology acceptance, adoption, and possible challenges: a case study of service organizations of Saudi Arabia. In2013 10th International Conference on Information Technology: New Generations 2013 Apr 15 (pp. 590-595). IEEE.
- [7.] Magboul I, Abbad M. Antecedents and adoption of e-banking in bank performance: The perspective of private bank employees. Interdisciplinary Journal of Information, Knowledge, and Management. 2018;13:361.
- [8.] Mak S. Innovation in manufacturing. Engineers Australia: Civil Edition. 2013 Jul 1;85(7):29-30.
- [9.] Masud AA, Nurfadhilah N, Tijjang B, Ali R. The Role of E-Business Adoption Towards Improving Msme Performance in Parepare City. Hasanuddin Economics and Business Review. 2022 Feb 27;5(3):59-66.
- [10.] Mediaty AH, Sundari S, Mas'ud AA. Analysis of local government budget behavior in South Sulawesi. Indian Journal of Economics and Business. 2021 Jul;20(4).
- [11.] Orji A, Ogbuabor JE, Okon AN, Anthony-Orji OI. Electronic banking innovations and selected banks performance in Nigeria. The Economics and Finance Letters. 2018 Dec 6;5(2):46-57.

- [12.] Revathy VR, Anitha SP. Cold start problem in social recommender systems: State-of-the-art review. Advances in Computer Communication and Computational Sciences. 2019:105-15.
- [13.] Riyadh HA, Tahar A, Indrasari A, Alfaiza SA, Sultan A, Abusharbeh M, Alhaleh S. A Comparative Analysis of E-Banking Usage and Technology Acceptance in Iraqi and Indonesian Banks.
- [14.] Sohail MS, Shanmugham B. E-banking and customer preferences in Malaysia: An empirical investigation. Information sciences. 2003 Apr 1;150(3-4):207-17.
- [15.] Tornatzky LG, Fleischer M, Chakrabarti AK. Processes of technological innovation. Lexington books; 1990.
- [16.] Yang S, Li Z, Ma Y, Chen X. Does electronic banking really improve bank performance? Evidence in China. International Journal of Economics and Finance. 2018;10(2):82-94.