A Comparative Analysis of Banking's Financial Performance before and after using E-Money

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Abstract

This study aims to determine the comparison of the financial performance of PT. Bank Mandiri (Persero) Tbk before and after issuing e-money. By using a research period of 3 years before and 3 years after issuing e-money. Financial performance is measured by profitability ratios as seen from the Return On Assets (ROA), Return On Equity (ROE), and BOPO ratios. This research is a quantitative research. The data used in this study is secondary data, namely the financial statements of PT. Bank Mandiri (Persero) Tbk. The subject of this research is PT. Bank Mandiri (Persero) Tbk which issues e-money. Data analysis used paired sample t-test analysis. The results of this study indicate that there are significant differences in the ratios of ROA, ROE, and BOPO before and after issuing e-money.

Keyword : E-money, Financial statement, ROA, ROE, BOPO

INTRODUCTION

Current technological developments result in almost all activities carried out by humans cannot be separate from technological sophistication. The rapid development of technology makes people's lives easier. One proof of the rapid development of technology is the payment system. The payment system in the economy continous to change and develop (Parastiti, D.E.,et.al, 2015). Seeing these conditions, the development of the payment system in Indonesia os closely related to technological infrastructure innovations. The aim is to improve the payment system by using the latest advances in information technology (bi.go.id). The payment is very important because it helps maintain the stability of the fianncial system thet has developed. This system initially only used cash, but has now entered a didital payment system or can be called e-money (Theresa, 2021).

E-money is one of the most popular forms of payment in today's society, especially among millennials. E-money makes it easy to pay fo goods and servises. The existence of e-money cannot yet be a solution for paying for goods and services, but only as an alternative to cash or non-cash transaction in society. This due to many factors, including people who have used to money for a long time. Apart of from that, security factors, limited availability of technology used by electronic money for everyone and public trust are their considerations when determining electronic money as the only payment method (Dewi, 2019). The emergency of e-money in society is designed to reduce the growth rate of the use of cash for micro and retail payments (theresa, 2021). E-money is a new payment system created by Bank Indonesia in order to improve people's welfare.

The following table presents the number of circulating e-money uses.

Tabel 1.1. Total use of e-money in circulation 2018-2022

No.	Year	Total instrument (millions Rp)
1	2016	68,31
2	2017	94,33
3	2018	167,20
4	2019	292,29
5	2020	432,28
6	2021	442,61
7	2022	594,17

Source : www.bi.go.id

Data from Bank Indonesia shows that the use of e-money over the last seven years has increased from 2018 to 2022. AS the number of e-money users increases, it is hoped that banks will no longer be limited to collecting and distributing funds , but banks have also developed services to facilitate public transactions. Therefore, measuring banking financiall performance is very important considering its important role in this era of global development (Theresa, 2021). With the axistence of e-money, banks should make changes to improve overall bank performance, especially in increasing bank profitability.

One bank financial institution that provides an e-money payment system is PT. Bank Mandiri Tbk. Bank Mandiri launched a new preapaid card called Mandiri e-money. It can be used for a variety of transactions, including online and in-store purchases (detik.com). Bank Mandiri is collaborating with the Jabodetabek Transportation Management Agency (BPT) to expand the use of Mandiri e-money prepaid cards (Maizal, 2021). According to SVP Transaction Banking Retail Sales at Bank Mandiri Thomas Wahyudi, Bank Mandiri is collaborating with the Jabodetabek Transportation Management Agency to create a collaboartive initiative aimed at providing better digital banking services to customers. This step is in line with Bank Mandiri's mission to become the financial institution that customers go to and reflects Bank Mandiri's support for the government's initiative to reduce cash transactions. As has been informed by the government through Bank Indonesia in the Non-Cash National Movement. PT Bank Mandiri (Persero) Tbk will continue to increase the use and transactions of electronic money based on e-money cards. An increase in the number of e-money users will have a positive impact on bank profitability. If e-money increases, of course bank service income will also increase because banks will receive fee-based income from fees charged to customers when carrying out e-money transactions. Increasing bank service income from emoney will affect the profitability that the bank will achieve (Prastika, 2019). To measure the profitability generated by banking management, a ratio analysis of profit calculations such as Return On Assets (ROA), Return On Equity (ROE), and Operational Costs and Operational Income is required (Muchlis, 2021). Then how was Bank Mandiri's financial performance before and after using e-money as measured by financial profitability analysis?

So from some of the previous descriptions it is important to do further research regarding "Comparative Analysis of Bank Mandiri's Financial Performance Before and After Using E-Money”. To compare Bank Mandiri's financial performance before and after using e-money, namely by using 3 years before the implementation of emoney (2008, 2009, and 2010) and 3 years after implementing e-money (2014, 2015 and 2016). Financial performance analysis will be reviewed from several aspects which include: Increasing profitability (ROA and ROE) and reducing operational costs (BOPO).

FORMULATION OF THE PROBLEM

Based on the background that has been explained, the problems in this research are: 1). Is there a significant difference between financial performance related to increasing profitability (ROA and ROE) at PT. Bank Mandiri (Persero) Tbk. before and after e-money? 2). Is there a significant difference between financial performance related to operational costs (BOPO) at PT. Bank Mandiri (Persero) Tbk. before and after e-money?

LITERATURE REVIEW

E-Money

Electronic Money (E-Money) is a non-cash payment instrument. This e-money can store a certain amount of cash into e-money which is stored in an electronic device. The nominal amount of money stored electronically is done by topping up the balance or what is usually called a top-up, topping up e-money is also easy. Usually e-money companies have collaborated with several shops so that e-money users can top up their e-money balances at these shops. Especially Gopay and Shopeepay, apart from being able to top up their balances at shops that have collaborated with these parties, consumers can top up their electronic money balances with Go-Jek drivers and Shopeefood drivers. Thus, when the Go-Pay or ShopeePay balance runs out when it is used for payment transactions for online transportation services, consumers can immediately top up the balance via the driver. (Effendi Yusuf, 2020).

The rapid development of e-money issued by various companies cannot be separated from the growth in the number of online shops and markets in various parts of the world. In Indonesia, public trust in online buying and selling is growing as long as there is a marketplace that can minimize fraud under the guise of online shopping. This also started the proliferation of e-money products in the form of digital money/e-wallets because the online buying and selling system does not require consumers to meet directly with sellers of goods (Dewi, 2019). The aim of using e-money in society is to reduce the use of cash, so that a cashless society can be formed (Widyastuti, 2017). This is done by encouraging people to use e-money as a substitute for cash, so that transactions can be carried out more easily without having to carry cash (Dewi, 2019).

Based on the theory by Jacob Ereste and Ratuate in Rustanto & Kartini (2019) that there are 2 types of electronic money (e-money), namely e-money in the form of chips with the use of cards as a transaction tool such as Flazz BCA, e-money Mandiri, Tap Cash BNI , Brizzi, then the second form of e-money, namely e-money in digital form by utilizing digital applications called e-wallets such as OVO, Shopeepay, GO-PAY, Qris, Dana, LinkAja, and various similar forms of e-money. Transactions using e-money will certainly feel more comfortable than using cash. According to research conducted by Arief Kusuma in 2022, the results show that e-money has a significant influence on financial performance, where the perception of benefits increases, increasing selling power so that financial performance continues to improve. Risk perception also has an influence on financial performance, where the idea that risk and risk management guarantees can minimize risks that may arise in financial performance.

Financial performance

Every company has a goal to generate maximum profits for the company. If the company succeeds in achieving these goals, then the company can be assessed for its good operating performance. Conversely, companies that cannot achieve their goals must analyze their performance so that they can take actions that can further improve company performance. Analysis of company performance is considered important not only for the company itself but also for various company stakeholders. For public companies, companies with poor results can influence the way the stock market and shareholders think about buying or selling company shares (Dr. Hutabarat Francis, MBA, 2020). Every company's financial manager must ascertain whether the company's performance is okay, or even if the company is not healthy or has the potential to go bankrupt. To assess the quality of a company, it can be seen from its financial performance (financial performance). Financial performance is reflected in the financial reports used as a measure of the company's financial performance (Fahmi, 2018. p.238).

Financial performance is a subjective measure of how well a company allocates its funds to generate income (Kenton, 2019) in (Madubuko Cyril et al., 2020). Generally, financial performance is used to measure financial health over a certain period. The company's financial performance can be viewed as an achievement and is an indicator of the company's success. Financial performance results will be monitored as future indicators during financial performance. This condition gives a signal to the company to obtain benefits such as expansion of financial resources and expansion of a wider market. The company's financial management emphasizes that every management decision is related to the main goal of the company, which is to maximize company value. (Cepi, 2021).

From the statement above, that financial performance is the result of processing company assets and the efforts that the company has made to generate profits, so that the company can rely on existing resources by looking at the company's prospects, growth and development potential. A company can be said to be successful if its financial performance is good, and it succeeds in meeting the standards and goals that have been set. To see how well the company implements its financial performance properly and correctly, it is important to check its financial reports and see whether the company has met Financial Accounting Standards (SAK) (Fahmi, 2014). To improve the function of financial reports, it is necessary to measure the company's financial performance, so that managers can assess the company's position and take appropriate actions to carry out company operations (Auvarda, 2018). Financial report analysis can be carried out using various methods, and in this research the analysis used is financial ratio analysis.

Financial Ratio Analysis

Financial ratios are a tool for analyzing company financial reports by comparing the numbers in the financial reports by dividing one number by another number (Kasmir, 2017). Comparisons can be made between one component and another component in one financial report or between components between financial reports. Then the numbers to be compared can be numbers in one period or several periods.

Financial ratios are used to measure management performance in a period and determine whether the company's targets have been achieved as set. In addition, management's ability to empower company resources effectively can be assessed. The results of performance reviews can be used to evaluate how well management is performing in meeting company targets and policies, or to plan future changes so that the management team can continue to meet those goals (Theresa, 2021). Various sets of ratios can be obtained from good information. The ratio categories that can be used in this research are based on various aspects related to the objectives of implementing e-money by banks, namely:

1. Operational Costs
One factor that reflects a bank's operating expenses is a proxy for personnel expenses. It is hoped that the application of e-money can reduce these operational costs, as well as increase the efficiency of banking operations. Therefore, the operational efficiency ratio is used to assess the operational efficiency of a bank (Auvarda, 2018)
2. Profitability
The profitability ratio is the ratio to assess the company's ability to generate profits within a certain period. This ratio also provides a measure of the level of effectiveness of a company's management as seen from the profits generated from sales or investment income. The profitability of a company is said to be good if it is able to meet the profit target determined by its assets or capital. Profitability ratios consist of Return On Assets (ROA) and Return On Equity (ROE). (Theresa, 2021)

RESEARCH METHODS

This research aims to determine the differences in financial performance before and after the introduction of e-money at PT. Bank Mandiri (Persero) Tbk. with the period 2008 to 2010 before the existence of e-money and 2014 to 2016 after the existence of e-money. The analysis of financial performance in this research will be reviewed from various aspects based on the objectives of implementing e-money itself, including operational costs and profitability ratios.

ANALYSIS AND DISCUSSION OF DESCRIPTIVE STATISTICAL RESEARCH RESULTS

Descriptive statistical analysis is used to provide an overview of the bank's financial condition as seen by the variables in the study based on the average value (mean), maximum value (max), minimum value (min), median value (median) and standard deviation value of each each variable.

Table 2.1 Descriptive Statistical Analysis

Ratio	Before *E-money*				After *E-money*			
	Min	**Max**	**Mean**	**Std.dev**	**Min**	**Max**	**Mean**	**Std.dev**
ROA	2,46	3,63	2,9567	0,60468	1,78	3,57	2,8333	0,93607
ROE	22,35	34,86	26,7500	7,03193	23,03	34,57	27,8033	6,02270
BOPO	65,63	78,12	71,2100	6,35033	64,98	96,50	77,0500	17,00664

Source : data processed by researchers (2023)

a) Return On Assets (ROA) Ratio Analysis

The ROA value before issuing e-money is 2.46. This value is greater than the minimum value of the ROA ratio after issuing e-money which is 1.78. The maximum ROA value before issuing e-money is 3.63, this value is also greater than the ROA value after issuing e-money, namely 3.57. The average (mean) before issuing e-money is 2.9567 greater than the average value (mean) after issuing e-money with a value of 2.8333. This shows that PT. Bank Mandiri (Persero) Tbk. has not been able to optimize the level of assets invested in e-money so that profits have not been contributed properly.
The standard deviation of the ROA ratio before issuing e-money is 0.60468, indicating a smaller data deviation, because the value is smaller than the mean, which is 2.9567. Meanwhile, after

removing e-money, the standard deviation value is 0.93607. This also shows a smaller data deviation, because the value is smaller than the mean, which is 2.8333. The deviation in data for the ROA ratio variable before and after issuing e-money shows that the data is not good enough or that there is a large gap in this variable.

b) Analysis of Return On Equity (ROE) Ratio

Bank Mandiri's minimum ROE value before issuing e-money is 22.35. This value is smaller than the minimum ROE value after issuing e-money of 23.03. The maximum value of the ROE ratio before issuing e-money is 34.86, this value is greater than the maximum value after issuing e-money, which is 34.57. The average (mean) ratio of ROE before issuing e-money is 26.7500, which is smaller than the average (mean) value of ROE after issuing e-money of 27.8033. This means that after issuing e-money PT. Bank Mandiri (Persero) Tbk. in generating profits using the total capital owned has increased.

The standard deviation of the ROE ratio before issuing e-money is 7.03193, indicating a relatively small data deviation, because the value is smaller than the mean value, which is 26.7500. And after removing e-money, the standard deviation value of the ROE ratio is 6.02270, indicating a relatively small data deviation, because the value is smaller than the mean value of 27.8033. The small deviation of this data shows that the ROE ratio variable data is quite good, because there are no large gaps in this variable.

c) Operational Cost Ratio Analysis

The minimum value of the BOPO ratio before issuing e-money is 65.63. This value is greater than the minimum value of the BOPO ratio after issuing emoney, which is 64.98. The maximum value of BOPO before issuing e-money is 78.12. This value is smaller than the maximum value of the BOPO ratio after issuing an emoji of 96.50. The average (mean) BOPO ratio before issuing e-money is 71.2100, which is smaller than the average BOPO ratio after issuing e-money of 77.0500. This means that after issuing e-money the operational activities of PT. Bank Mandiri (Persero) Tbk. less efficient. The standard deviation of the BOPO ratio before issuing e-money is 6.35033, indicating a data deviation that is relatively smaller than the mean value, which is 71.2100. And after issuing e-money the standard deviation value of the BOPO ratio is 17.00664 indicating a relatively small data deviation, because the value is smaller than the mean value of 77.0500. The small deviation of this data indicates that the BOPO ratio variable data is quite good, because there is no gap that is more than that variable.

CONCLUSION

This research aims to see a comparison of the financial performance of PT. Bank Mandiri (Persero) Tbk before and after the implementation of E-money as measured by Return On Assets (ROA), Return On Equity (ROE), and Operational Costs. Based on the results of the analysis and discussion in the previous chapter, the conclusions that can be drawn from this research are as follows, In the Return on Assets (ROA) ratio, there is a difference before and after implementing e-money, and the difference that occurs is that the ROA value was better before implementing e-money. The higher the ROA value of a company, the higher the level of profit that can be obtained and the better the company's position in terms of asset use. Which means that after implementing emoney, PT. Bank Mandiri (Persero) Tbk. have not been able to optimize the level of assets invested in e-money so that the profit has not contributed properly. In the Return on Equity (ROE) ratio, there is a difference before and after implementing e-money, and the difference that occurs is that the ROE value is greater after implementing e-money. The greater this ratio indicates the ability of the company's paid-up capital to generate profits for shareholders the greater. This means that after issuing e-money PT. Bank Mandiri (Persero) Tbk. in generating profits using the total capital owned has increased. In BOPO, there are differences before and after implementing e-money, and the difference that occurs is that the BOPO value is greater after implementing e-money. The smaller the BOPO value means the more efficient the company operates. This means that after issuing e-money the operational activities of PT. Bank Mandiri (Persero) Tbk. less efficient.

SUGGESTION

For companies that issue e-money, to increase profitability it is necessary to carry out vigorous promotions so that more people use e-money, this can later reduce operational costs to operating income and make both operational costs efficient. For future researchers it is better to include non-economic aspects such as company culture and company technology that affect financial performance, so that a more complete picture of company performance can be obtained and extend the research period both before and after issuing emoney because there has not been a complete difference found especially the ROA ratio and operating expenses to operating income in a quarterly period so that a clear picture of the differences from issuing e-money can be obtained.

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