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THE EFFECT OF DIGITIZATION TRANSFORMATION ON FINANCIAL PERFORMANCE: A CASE STUDY OF BANKING COMPANIES IN INDONESIA

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Abstract: This study aimed to analysis the influence of digital transformation, bank size, CAR, loan & liquidity ratio, NPL, inflation and GDP growth to ROA and ROE with LLP and deposit growth as a control variable. The results of hypothesis testing from this study show that digital transformation, CAR, NPL, inflation, GDP growth and deposit growth have a significant effect on ROA. While bank size, loan ratio, liquidity ratio and LLP do not have a significant effect on ROA. As for the second model shows that digital transformation, bank size, NPL, inflation, GDP growth and deposit growth have a significant effect on ROE. While the CAR, loan ratio, liquidity ratio and LLP do not have a significant effect on ROE.

Keywords: Digitization, Bank Specifies, Economic Variable, Financial Performance

INTRODUCTION

The many possibilities, time and money savings, and ease of use of these apps continue to make them part of the conventional banking channels (bank branches). In addition, owner customers can view information about the valuation of their investment products, the bank's reward programs, and the fees they incur in real time via digital media through this app, which helps them get more favorable tax treatment. In addition, digital transformation allows banking companies to reduce their operating costs by limiting the number of physical stores and employees they use (Deng et al., 2019).

This study highlights the effect of information technology (IT) investment on banking operations and performance in line with (Okiro & Ndungu, 2013) and (Ky et al., 2018). This study provides important insights into the context of a developing country with a bank-oriented financial system, and shows that investment in digital technology has a positive impact on bank performance as measured by return on assets (ROA) and return on equity (ROE).

This research is motivated by the impact of the importance of measuring banking financial performance with current economic conditions, so it is

necessary to conduct research on what factors can affect the level of banking financial performance. Similar research has been conducted by (Theiri & Hadoussa, 2023) where digital transformation, bank specificities and economic variables as independent variables and bank financial performance variables as dependent variables, but the difference between this study and previous research is that this study adds loan loss provision variables and deposit growth as control variables based on (Washington et al., 2022).

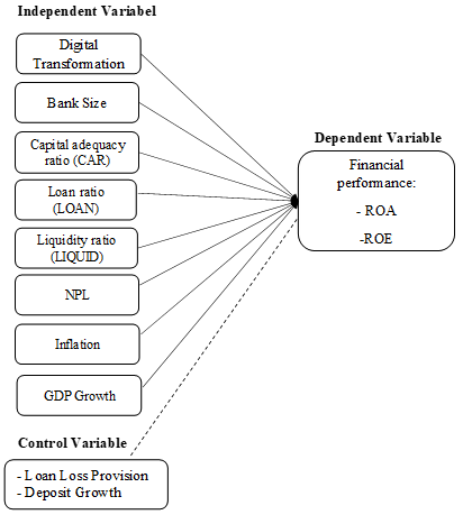

Figure 1. The conceptual research framework

Digital Transformation

Digital transformation is defined as a continuous process of strategic renewal using technological advances to improve performance or replace structures and processes in an organization (Karttunen et al., 2023). Based on research (Ren & Li, 2023) confirmed that digital transformation has a significant positive effect on the return on assets and return on equity of renewable energy companies. Digitalization of business processes can improve operational efficiency by automating routine tasks and help businesses find ways to reduce costs through automation or other efficiencies, such as supply chain management based on blockchain technology or cloud computing for data storage. This can reduce overall production costs and increase employee productivity which means more return on assets and return on equity. Based on the explanation above, the hypothesis is proposed as follows:

H1: Digital Transformation affects Financial Performance

Bank Size

In this study, bank size is calculated by the natural logarithm of total assets, number of employees and total customer deposits. In relation to banking financial performance, bank size refers to the scale or magnitude of bank operations. It is an important factor that can affect various aspects of a bank's financial performance (Akinola, 2022). Research conducted by (Gupta & Mahakud, 2020) proves that bank size has a significant effect on return on assets and return on equity of banks in India. Meanwhile, according to research (Nyabaga & Matanda, 2020) states that bank size has a significant positive effect on return on assets and return on equity. Whereas for large-sized banks, it is easy to raise capital due to the bank's reputation and long-term presence in the economic market. This provides opportunities to diversify income through various sources such as consumer loans, corporate loans, capital market investments, and investment banking services. In this case, income diversification can increase ROE as business risks can be spread among various business segments. Based on the explanation above, the hypothesis is proposed as follows:

H2: Bank Size affects Financial Performance

Capital Adequacy Ratio (CAR)

Capital Adequacy Ratio also known as CAR is a measure of a bank's financial soundness and its ability to absorb a reasonable amount of losses. CAR is used to ensure the financial soundness of a bank and its ability to absorb a reasonable amount of losses (Dao & Nguyen, 2020). Research by (Ogunode et al., 2022) shows that the capital adequacy ratio has a significant negative effect on return on assets and return on equity of non-financial companies operating in Nigeria. The capital requirements to be met by banks are positively correlated with the level of CAR. To achieve a higher CAR level, banks may need to increase their equity by issuing new shares or raising funds from other parties. However, this will result in additional costs, such as dividend payments to new shareholders or interest on new debt issued by the bank. The result is a decrease in net profit and a decrease in ROE. Based on the explanation above, the hypothesis is proposed as follows: H3 : Capital Adequacy Ratio affects Financial Performance

Loan Ratio

Loan ratio is a ratio that measures the amount of loans provided by the bank compared to the total assets or deposits owned by the bank. This ratio can give an idea of how much proportion of the bank's assets are invested in loans. Based on research conducted by (Barra & Ruggiero, 2022) shows that the loan to asset ratio has a significant positive effect on return on assets. If banks can lend most of their assets with controlled risk, the potential interest income from these loans will increase. According to research (Theiri & Hadoussa, 2023) shows that the loan ratio has a significant positive effect on return on equity. So it can be interpreted that by using loans to finance their operations, banks can increase their leverage or the level of use of own capital in their business activities. Based on the explanation above, the hypothesis is proposed as follows:

H4: Loan Ratio affects Financial Performance

Liquidity Ratio

Liquidity ratio is a ratio that measures the ability of a bank to meet its financial obligations in the short term using liquid assets. This ratio provides an overview of how liquid or liquid the bank's assets are and the extent to which the bank can fulfill withdrawal requests submitted by customers (Gao & Li, 2021). Based on research conducted by (Kumar Aspal et al., 2019) shows that the liquidity ratio has a significant positive effect on return on assets. The results showed that banks that have better liquidity management and operating profit can show higher profits. Meanwhile, according to (Zaineldeen, 2018) states that the monetary liquidity ratio has a significant positive effect on return on equity. The cost of holding liquid assets that do not generate significant income can reduce bank ROE. Based on the explanation above, the hypothesis is proposed as follows:

H5: Liquidity Ratio affects Financial Performance

Non-Performing Loan

In the banking industry, the term "nonqualified loan" (NPL) is used to describe a loan or credit that is not paid on time by its borrower. NPLs occur when

clients do not pay installments or interest as scheduled (HAKIZIMANA et al., 2023). Based on research conducted by (Aliu & Çollaku, 2021), it is stated that non-performing loans have a significant negative effect on the return on assets of banks in Kosovo. This means that banks must follow a balanced approach between credit portfolio growth and credit risk exposure. When credit risk increases, bank profitability is directly affected. According to (Nedelescu & Ciulei, 2022) shows that non-performing loans have a negative significant effect on return on equity. This conclusion can be explained by the fact that banks recognize reserves to cover NPLs, which affects affect the return and equity structure. Based on the explanation above, the hypothesis is proposed as follows:

H6: Non-Performing Loan affects Financial Performance

Inflation

Inflation is when the prices of goods and services generally rise over time. Inflation occurs when the demand for goods and services exceeds the supply of goods and services, so the purchasing power of money decreases. Based on research conducted by (Kumar Aspal et al., 2019) shows that inflation has a significant negative effect on return on assets. From the results of this study, it can be concluded that the increase in production costs such as raw materials, labor wages, or property rent is not followed by an increase in company income projected from the return on asset ratio. According to (Siddik et al., 2022) shows that inflation has a significant negative effect on return on equity. Unexpected inflation rates affect costs, assets, liabilities, technical provisions and future claim payments that slow down company growth. Based on the explanation above, the hypothesis is proposed as follows:

H7: Inflation affects Financial Performance

GDP Growth

Gross domestic product (GDP) growth is a measure of a country's economic growth over a period of time. GDP growth is calculated by comparing the value of GDP over a period of time, usually a quarter or year and shows the percentage change in the value of goods and services produced by a country's economy over a period of time. Based on research conducted by (Kumar Aspal et al., 2019) shows that GDP Growth has a significant negative effect on return on assets. This means that in an effort to slow down economic growth that is too fast, the central bank increases interest rates which can affect the company's borrowing or financing costs which can reduce ROA.

Meanwhile, research conducted by (Xu et al., 2018) shows that GDP Growth has a significant negative effect on return on equity. GDP growth that tends to be fast in the economy is often accompanied by an increase in credit demand from consumers and businesses. If credit risk increases, then bank ROE can also fall. Based on the explanation above, the hypothesis is proposed as follows:

H8: GDP Growth affects Financial Performance

Loan Loss Provision

Loan loss provision (LLP) is a reserve made by banks or other financial institutions to cover losses that may be caused by bad or uncollectible loans. The main objective of LLP is to maintain the financial stability of the bank by ensuring

that the bank has sufficient funds to cover potential losses (Zulfikar & Sri, 2019). Based on research conducted by (Washington et al., 2022) states that loan loss provision has a negative influence when ROA is the dependent variable. This is because a larger loan loss provision means greater credit coverage for default.

Deposit Growth

Deposit growth is the increase in total funds deposited by customers in a bank. It shows the increase in total funds deposited by individuals, companies, or other entities over a period of time (Iriani, 2021). Research conducted by (Washington et al., 2022) uses deposit growth to monitor bank growth because a growth-oriented bank means that the company is increasing and making more money. However, an increase in deposit growth does not automatically indicate an increase in bank profitability. Therefore, banks must turn deposits into profitable investments. One way is to give loan preference to applicants with lower credit ratings.

RESEARCH METHODS

The data collection method in this study uses the documentation method or secondary data. The process of using the documentation method by collecting data related to the research in 2018-2022. The data in this study comes from the official website of the Indonesian Stock Exchange (https://www.idx.co.id).

The number of samples includes 35 banking companies listed on the IDX from 2018 - 2022 with a total of 175 observations. The sample selection was carried out by considering the following sample criteria:

a. Banking companies listed on the Indonesia Stock Exchange during the observation period.
b. Banking companies that publish complete audited financial reports during the observation period
c. Banking companies that publish complete annual reports during the observation period

RESULTS AND DISCUSSION

The target of this research is the banking sector. Thirty-five (35) companies in this industry were taken from secondary data on the Indonesia Stock Exchange with Main Board listings for the period 2018 - 2022 using purposive sampling as the sampling method.

Data analysis in this study used multiple regression tests on panel data. In research using panel data, there are three models that can be used, namely the common effect model, the fixed effect model, and the random effect model. Before carrying out the regression test, a regression model test is carried out that will be used. The results of the regression model test in this study are using the fixed effect model. The multiple regression test aims to test whether there is an effect of ROA on DIG, SIZE, CAR, LOAN, LIQ, NPL, INF, GDP, LLP, DG and also to test whether there is an effect of ROE on DIG, SIZE, CAR, LOAN, LIQ, NPL, INF, GDP, LLP, DG.

$$ROA = \alpha + \beta 1DIG + \beta 2SIZE + \beta 3CAR + \beta 4LOAN + \beta 5LIQ + \beta 6NPL + \beta 7INF + \beta 8GDP + \beta 9LLP + \beta 10DG + e$$

$$ROE = \alpha + \beta 1DIG + \beta 2SIZE + \beta 3CAR + \beta 4LOAN$$

+ β5LIQ + β6NPL +β7INF + β8GDP + β9LLP + β10DG + e

Table 1. F Test Result

Simultant Test (F-Test)				
Effects Test	***Model***	***Prob.***	***Hypothesis***	***Conclusion***
Prob. (FStatistic)	Model 1 (ROA)	0.0000	Ha Accepted	Significantly Effected
	Model 2 (ROE)	0.0000	Ha Accepted	Significantly Effected

Based on the test results, it shows the value of the Prob (F-Statistic) in Model 1 (Return on Assets) of 0.0000 < 0.05, Ha Accepted. It can be concluded that simultaneously all independent variables have a significant effect on the dependent variable. The Fit model based on the test results shows the value of the Prob (F-Statistic) in Model 2 (Return on Equity) of 0.0000 < 0.05, Ha Accepted. It can be concluded that simultaneously all independent variables have a significant effect on the dependent variable.

Table 2
Results of Regression Analysis Model 1

Model 1				
Fixed Effects Model				
Variabel Dependent: Return on Assets				
Variables	***Coefficient***	***Prob.***	***Hypothesis***	***Conclusion***
C	0.008595	0.0151		
Digital Transformation	-0.036208	0.0003	Ha Accepted	Significantly Effected
Bank Size	-3.56E-10	0.8508	Ha Rejected	Not Effected
Capital Adequacy Ratio	0.005031	0.0125	Ha Accepted	Significantly Effected
Loan Ratio	0.010734	0.1415	Ha Rejected	Not Effected
Liquidity Ratio	-0.006469	0.0688	Ha Rejected	Not Effected
Non-Performing Loan	-0.183926	0.0003	Ha Accepted	Significantly Effected
Inflation	0.179445	0.0001	Ha Accepted	Significantly Effected
GDP Growth	0.030968	0.0000	Ha Accepted	Significantly Effected
Loan Loss Provision	0.001276	0.8763	Ha Rejected	Not Effected
Deposit Growth	0.004256	0.0123	Ha Accepted	Significantly Effected

Digital Transformation has a significant effect on Return on Assets

Variable Digital Transformation has a Prob. value of 0.0003 <0.05, then Digital Transformation has a significant effect on Return on Assets. Ha is accepted.

Bank Size has a significant effect on Return on Assets

The Bank Size variable has a Prob. value of 0.8508> 0.05, so Bank Size has no effect on Return on Assets. Ha is rejected.

Capital Adequacy Ratio has a significant effect on Return on Assets

The Capital Adequacy Ratio variable has a Prob. value of 0.0125 <0.05, so the Capital Adequacy Ratio has a significant effect on Return on Assets. Ha is accepted.

Loan Ratio has a significant effect on Return on Assets

Variable Loan Ratio has a Prob. value of 0.1415> 0.05, then the Loan Ratio has no effect on Return on Assets. Ha is rejected.

Liquidity Ratio has a significant effect on Return on Assets

Variable Liquidity Ratio has a Prob. value of 0.0688> 0.05, then Liquidity Ratio has no effect on Return on Assets. Ha is rejected.

Non-Performing Loan has a significant effect on Return on Assets

Variable Non-Performing Loan has a Prob. value of 0.0003 <0.05, then Non-Performing Loan has a significant effect on Return on Assets. Ha is accepted.

Inflation has a significant effect on Return on Assets

Variable Inflation has a Prob. value of 0.0001 <0.05, then Inflation has a significant effect on Return on Assets. Ha is accepted.

GDP Growth has a significant effect on Return on Assets

The GDP Growth variable has a Prob. value of 0.0000 <0.05, so GDP Growth has a significant effect on Return on Assets. Ha is accepted.

Loan Loss Provision has a significant effect on Return on Assets

The Loan Loss Provision variable has a Prob. value of 0.8763> 0.05, so Loan Loss Provision has no effect on Return on Assets. Ha is rejected.

Deposit Growth has a significant effect on Return on Assets

Variable Deposit Growth has a Prob. value of 0.0123 <0.05, then Deposit Growth has a significant effect on Return on Assets. Ha is accepted.

Table 3
Results of Regression Analysis Model 2

Model 2				
Fixed Effects Model				
Variabel Dependent: Return on Equity				
Variables	***Coefficient***	***Prob.***	***Hypothesis***	***Conclusion***
C	0.06892	0.0001		
Digital Transformation	-0.086374	0.0029	Ha Accepted	Significantly Effected
Bank Size	4.63E-08	0.0000	Ha Accepted	Significantly Effected
Capital Adequacy Ratio	0.011062	0.6303	Ha Rejected	Not Effected
Loan Ratio	-0.016563	0.6717	Ha Rejected	Not Effected
Liquidity Ratio	-0.032895	0.1371	Ha Rejected	Not Effected
Non-Performing Loan	-1.014485	0.0000	Ha Accepted	Significantly Effected
Inflation	0.792873	0.0000	Ha Accepted	Significantly Effected
GDP Growth	0.353957	0.0000	Ha Accepted	Significantly Effected
Loan Loss Provision	-0.037631	0.0864	Ha Rejected	Not Effected
Deposit Growth	0.018104	0.0045	Ha Accepted	Significantly Effected

Digital Transformation has a significant effect on Return on Equity

Variable Digital Transformation has a Prob. value of 0.0029 <0.05, then Digital Transformation has a significant effect on Return on Equity. Ha is accepted.

Bank Size has a significant effect on Return on Equity

Variable Bank Size has a Prob. value of 0.0000 <0.05, then Bank Size has a significant effect on Return on Equity. Ha is accepted.

Capital Adequacy Ratio has a significant effect on Return on Equity

The Capital Adequacy Ratio variable has a Prob. value of 0.6303> 0.05, so the Capital Adequacy Ratio has no effect on Return on Equity. Ha is rejected.

Loan Ratio has a significant effect on Return on Equity

Variable Loan Ratio has a Prob. value of 0.6717> 0.05, then the Loan Ratio has no effect on Return on Equity. Ha is rejected.

Liquidity Ratio has a significant effect on Return on Equity

Variable Liquidity Ratio has a Prob. value of 0.1371> 0.05, then Liquidity Ratio has no effect on Return on Equity. Ha is rejected.

Non-Performing Loan has a significant effect on Return on Equity

Variable Non-Performing Loan has a Prob. value of 0.0000 <0.05, then Non-Performing Loan has a significant effect on Return on Equity. Ha is accepted.

Inflation has a significant effect on Return on Equity

Variable Inflation has a Prob. value of 0.0000 <0.05, then Inflation has a significant effect on Return on Equity. Ha is accepted.

GDP Growth has a significant effect on Return on Equity

The GDP Growth variable has a Prob. value of 0.0000 <0.05, so GDP Growth has a significant effect on Return on Equity. Ha is accepted.

Loan Loss Provision has a significant effect on Return on Equity

Variable Loan Loss Provision has a Prob. value of 0.0864> 0.05, then Loan Loss Provision has no effect on Return on Equity. Ha is rejected.

Deposit Growth has a significant effect on Return on Equity

Variable Deposit Growth has a Prob. value of 0.0045 <0.05, then Deposit Growth has a significant effect on Return on Equity. Ha is accepted.

DISCUSSION

H1: The Effect of Digital Transformation on Financial Performance

The results showed that digital transformation is significantly influenced by return on assets. This means that when digital transformation occurs in various aspects of business operations, it can help reduce operational costs, improve services to customers and improve risk management capabilities by managing risks effectively, businesses can reduce the possibility of losses and protect their assets.

The results show that digital transformation significantly affects return on equity. This means that digital transformation occurs in various aspects of business such as business operations that can help improve efficiency and productivity, expand target markets, and create motivation for new business.

H2: The Effect of Bank Size on Financial Performance

Based on the results of this study, it shows that bank size has no effect on return on assets. Thus, smaller banks can often work more efficiently than larger banks. Despite its smaller size, these components can contribute to a higher ROA. So, it can be said that bank size does not indicate a higher return on assets.

Based on the results of this study, it shows that bank size has a significant effect on return on equity. Larger banks usually have better access to the capital market which allows them to raise funds more easily and at a lower cost. With this access to capital, larger banks can invest in growth opportunities, expand their operations, and generate higher profits which all have a positive impact on ROE.

H3: The Effect of Capital Adequacy Ratio on Financial Performance

The results showed that the capital adequacy ratio has a significant effect on return on assets. A higher CAR indicates a bank's financial strength and ability to cope with adverse economic conditions. This increases investor confidence and can attract investment, potentially resulting in growth opportunities and improved asset quality.

The results of this study indicate that the capital adequacy ratio has no effect on return on equity. CAR may affect a bank's cost of capital indirectly, as a higher capital adequacy ratio means a larger share of equity in the capital structure, which may lead to a higher cost of equity. However, the impact of the cost of capital on ROE is more indirect and depends on the bank's ability to generate profits that exceed its cost of capital through effective asset utilization and generate profits that are greater than the cost of capital.

H4: The Effect of Loan Ratio on Financial Performance

Based on the results of this study, it shows that the loan ratio has no effect on return on assets. In this case, although banks can increase the loan ratio by providing more loans to customers, it is important to remember that loan portfolio diversification is also important to achieve a healthy ROA. Banks that only provide large loans may face higher credit risk and potential losses that could affect the bank's ROA.

Based on the results of this study, it shows that the loan ratio has no effect on return on equity. In this case it can be interpreted that the addition of loans through an increase in the loan ratio can increase credit risk for banks. If the loan portfolio experiences problems or bad payments from debtors increase, there will be a negative impact on the bank's productive assets and ultimately reduce ROE.

H5: The Effect of Liquidity Ratio on Financial Performance

Based on the results of this study indicate that the liquidity ratio has no effect on return on assets. A high liquidity ratio can be considered a sign that the

bank has enough liquid assets such as cash to pay liabilities as they fall due. However, the ratio does not directly impact return on assets (ROA), because ROA is more related to how effectively all assets are used to generate profits.

Based on the results of this study, it shows that the liquidity ratio has no effect on return on equity. A high liquidity ratio can be considered a sign that the bank has enough liquid assets such as cash to pay obligations as they fall due. However, this ratio does not directly impact ROE because ROE is more related to how efficiently the bank uses its own capital in its operations.

H6: The Effect of Non-Performing Loan on Financial Performance

Based on the results of this study, it shows that non-performing loans have a significant effect on return on assets. In this case, when banks have a lot of NPLs, they must allocate more resources to pursue arrears payments and restructure problematic loans. As a result, most of the loans become unproductive, thus lowering interest income.

Based on the results of this study, it shows that non-performing loans have a significant effect on return on equity. In this case, ROE shows how effective the use of own capital is in bank operations. If a lot of capital is tied up in the NPL portfolio, the rate of return on capital will decrease significantly, which impacts the overall ROE.

H7: The Effect of Inflation on Financial Performance

Based on the results of this study indicate that inflation has a significant effect on return on assets. This indicates that if the value of bank assets cannot increase in proportion to the inflation rate, the real value of assets will decrease. This can affect ROA because the return on assets earned will be reduced.

Based on the results of this study indicate that inflation has a significant effect on return on equity. This shows that if the value of the bank's own capital cannot increase in proportion to the inflation rate, then the real value of capital will fall. This can affect ROE because the return earned from own capital will decrease.

H8: The Effect of GDP Growth on Financial Performance

Based on the results of this study indicate that gdp growth has a significant effect on return on assets. This shows that good financial market performance is usually associated with GDP growth. If the value of investments in the bank's portfolio increases, the potential for capital gains will increase, which will make a positive contribution to return on assets (ROA).

Based on the results of this study indicate that gdp growth has a significant effect on return on equity. When GDP grows, people have more money to invest or use banking services. This can increase bank profits through increased credit activity and other financial transactions. Therefore, ROE increases because of the increase in own capital profit.

Loan Loss Provision

Based on table 2, the results of the analysis show that there is no influence between the variable loan loss provision on the variable return on assets. This shows that when banks increase the

allocation of loan loss provision funds, this has no effect if there are many non-performing loans and defaults from customers. So that there is a decrease in net income that can affect ROA, cannot be measured if only compared to loan loss provision.

Based on table 3, the analysis results show that there is no influence between the loan loss provision variable and the return on equity variable. This shows that when the bank decides to increase the loan loss provision which increases the bank's expenses, which has an impact on decreasing bank capital, thereby reducing return on equity. However, in this study, loan loss provision only acts as a supporting factor.

Deposit Growth

Based on table 2, the results of the analysis show that there is a significant influence between the gdp growth variable on the return on assets variable. This shows that when GDP grows, business activity tends to increase. This means an increase in demand for products and services from these companies. With an increase in business activity, the company's revenue and profit also tend to increase which in turn will improve ROA.

Based on table 3, the analysis results show that there is a significant influence between the GDP growth variable on the return on equity variable. This shows that economic growth is often accompanied by new investment opportunities that arise. Companies can take advantage of this condition to expand their business, acquire other companies or develop new products. If this investment is successful in generating profits, then ROE will also increase.

CONCLUSION

The conclusion of this research based on model 1 is that digital transformation, capital adequacy ratio, non-performing loan, inflation, gdp growth and deposit growth have a significant effect on return on assets while bank size, loan ratio, liquidity ratio and loan loss provision have no effect on return on assets. If based on model 2 where digital transformation, bank size, non-performing loans, inflation, gdp growth and deposit growth have a significant effect on return on equity while capital adequacy ratio, loan ratio, liquidity ratio and loan loss provision have no effect on return on assets.

As with any research, the results of this study also have several limitations, including the fact that there are quite a lot of outlier data related to the digital transformation variable. And the measurement of digital transformation in this study only uses assets related to digitalization with details of fixed assets consisting of computers and intangible assets consisting of software where not every banking company discloses in detail related to the amount of assets related to this digital transformation.

As research, in the results of this study there are also some suggestions as an effort to overcome the limitations, among others, can use other measuring instruments carried out in further research such as the digital transformation variable. Because this digital transformation variable is still rarely used and is associated with return on assets and return on equity in research conducted in Indonesia; this study uses a sample of banking companies listed on the Indonesia Stock Exchange in 2018-2022. It is hoped that further

research can use samples from other sectors such as manufacturing or all companies (not certain sectors); further research can use other proxies for liquidity ratio and loan ratio; this study uses financial report data and annual reports as research sources, it is hoped that future researchers can look for data other than financial reports and annual reports.

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