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The Impact of Internet Banking, Mobile Banking and Leverage on Bank Profitability in Indonesia

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A B S T R A C T

This study aims to identify the effect between internet banking, mobile banking and leverage on the profitability of banking companies in Indonesia. In this study, a sample of companies in the banking sector from 2018 to 2022 was taken using the purposive sampling technique, resulting in a sample of 45 samples. The type of data used in this study is quantitative data or secondary data, in the form of annual financial reports of banking companies published by Bank Indonesia (BI) from 2018-2022. There are two types of variables used in this study, namely dependent variables and independent variables. The independent variables in this study are internet banking, mobile banking and leverage, while the dependent variable is profitability. In order to determine the effect on the dependent and independent variables, the researcher uses data analysis. The data analysis used in this research is descriptive statistical analysis, classical assumption test, multiple regression analysis and hypothesis testing.

Keywords: Internet Banking, Mobile Banking, Leverage, Profitability.

1. Introduction

In the economy of any country, including Indonesia, banking plays a very important role. Almost all aspects of economic activities use banking as a financial institution that can guarantee the operation of a business activity, therefore banking has developed quite rapidly. Based on data from the Central Statistics Agency (BPS), the total number of commercial banks in 2016 was 116 banks consisting of 104 conventional commercial banks and 12 Islamic commercial banks (BUS), of which the number of conventional commercial banks and Islamic commercial banks (BUS) has changed, where the total number of commercial banks in 2021 will be 107 banks consisting of 95 conventional commercial banks and 12 Islamic commercial banks (BUS).

In this era, banking has developed very rapidly and plays an important role in mobilising funds from the community. This goes hand in hand with technological advancements, especially since the emergence of financial technology and the increased mobility of the community, which has led to people's desire to make transactions faster and easier. The presence of fintech in the banking industry aims to enable banks to support innovation in providing digital services in accordance with the Financial Services Authority Regulation No. 12 / POJK.03 / 2018 on the implementation of digital banking services by commercial banks, which was made to promote financial inclusion and public access to financial services so that they are not affected by time and place restrictions (OJK, 2021). According to Maftukhah (2013), this rapid growth has led to competition among banks in Indonesia, so banks are required to create their own advantages, and to create competitive advantages, they must gain the trust of customers and the public, who become potential customers.

The development of a bank as a financial institution in the economy is also largely determined by the level of profit it achieves in its operations. With a high level of credibility, it will attract customers and investors to invest their money in the bank. The assessment of the financial performance of banks is one of the important factors for banks to see how the bank is performing. In addition, the assessment can also be used to determine how much profitability or profit the bank is making. Every company, both banks and non-banks, at some time (certain period) will report all its financial activities in a financial report. The bank's financial statements show the overall condition of the bank, including its weaknesses and strengths. The purpose of financial decisions made by financial managers is to improve the welfare of entrepreneurs, which is reflected in an increase in the value of the company's income or profit.

Profitability is the key to a bank's success and shows the comparison between profit before and after tax, where it can be seen in the Return on Assets (ROA) indicator. Based on Bank Indonesia's Circular Letter No. 6/23 / DPNP dated 31 May 2004 on the Assessment System for the Health Level of Commercial Banks, there are eight indicators used to measure the level of profitability, namely return on assets (ROA), return on equity (ROE), net interest margin (NIM), operating expenses compared to operating income (BOPO), development of operating income, composition of productive assets portfolio and income diversification, application of accounting principles in revenue recognition, and outlook for operating income. Profitability in this study was measured by return on assets (ROA). In addition, according to Susilowibowo & Zulifiah (2014), the most appropriate indicator to measure the

health level of banks according to Bank Indonesia is to look at the level of profitability measured by the Return On Asset (ROA) ratio. According to Bank Indonesia Circular Letter No. 13/24 /DPNP dated 25 October 2011, Return on Asset (ROA) is the ratio of earnings before tax (EBT) to total assets.

Athanasoglou (2006) states that bank profitability is a function of internal and external factors. Internal factors are micro or bank-specific factors that determine profitability. One of the internal factors that can be used by investors to assess the profitability of a company is leverage. High growth companies will certainly need a lot of funds to finance the company's operations. One way of meeting this need is through the company's external sources of finance, namely debt (leverage). Leverage is one of the important factors that affect profitability because leverage can be used by companies to increase the company's capital in order to increase profits Singapurwoko (2011). Leverage exists because companies want to meet the need to operate using assets and sources of funds that cause fixed costs in the form of depreciation costs from fixed assets and interest costs from debt, and can also increase returns or income for companies or shareholders. Of the various ratios available, the researchers chose to use the Debt to Asset Ratio (DAR) in this study. The DAR measures how much of a company's assets are financed by debt, or how much the company's debt interferes with asset management. The higher the DAR, the greater the use of debt to finance assets. A high DAR indicates high risk because there is a concern that the company will not be able to cover its debts with its assets, making it more difficult to obtain additional loans, Kasmir (2014). The results of the research conducted by Putra & Bagus (2018), found that leverage has a negative and significant effect on profitability.

2. Theoretical Foundations and Hypothesis Development

Schumpeter's Innovation Theory

This theory was proposed by Joseph Alois Schumpeter in 1934 in his book The Theory of Economic Development. According to Schumpeter, the main key to economic development is innovators and entrepreneurs. Schumpeter also argues that innovation can be different things such as creating new products or improving product quality, developing new production methods, opening new markets and finding new sources of supply Chell (2008). Schumpeter's theory of innovation is associated with technological advances that can generate opportunities and profits, so it will increase the investment made by financial institutions or banks in innovative new products and ultimately this will attract other parties in the industry to make technological investments that will erode the profit margin for innovation Shanmugam & Nigam (2020). It can be concluded from this opinion that when banks use fintech in their services, financial performance will increase, but this will lead to competition between banks offering similar facilities, so this will erode the profit margin for innovation for banks.

Signalling Theory

Signalling theory focuses on the importance of information published by the company for investment decisions made by external parties as investors. Information is an important element for investors and businessmen because information is a statement, record or description of both past, present or future conditions for the continuity of a company and how the market works. Relevant, current, complete and accurate information is required by investors in the capital market as a means of analysis in making investment decisions. According to Hartono (2000), information released as an announcement provides a signal to investors in making investment decisions. If the announcement contains positive value, it is expected that the market will react when the announcement is received by the market. When the company publishes information, investors as market participants will analyse the information. If the announcement of the company's publication results has a positive value, it will be a good signal for investors, and investors are expected to be interested in investing. Conversely, if the announcement of the company's earnings release has a negative value, it will be a bad signal for investors and investors will not be interested in investing. The market will react to this, which can be seen in changes in the trading volume of the company's shares.

Definition of Bank

Banks are one of the financial institutions that play an important role in the economy of a country such as Indonesia. According to Law Number 10 Year (1998) in Article 1, the definition of a bank is a business entity that collects funds from the public in the form of deposits and distributes them in the form of loans and or other forms to improve the lives of many people. Through credit activities and services provided, banks serve the needs of the burden and help facilitate the payment system for the economic sector.

Bank Principles, Functions, and Objectives

Bank financial institutions play a very important role in the economic development of a country. This is because banking financial institutions have principles, functions and objectives that strongly support the economic development of a country. The following are the principles, functions and objectives of banking as stated in Law No. 7 of 1992, Articles 2, 3 and 4 on Banking:

- Principle: Indonesian banking in conducting its business is based on economic democracy by applying the principle of prudence.

- Function: The main function of Indonesian banking is to collect and distribute public funds.

- Objective: Indonesian banking aims to support the implementation of national development to increase equity, economic growth and national stability to improve the welfare of the people.

Bank Activities

Conventional banking activities are listed in Law No. 7 of 1992, Article 6, and include the raising of funds from the public in the form of deposits in the form of demand deposits, time deposits, certificates of deposit, savings deposits, and/or other forms equivalent thereto;

- The granting of credit;

- Issuing promissory notes;

- Buying, selling or guaranteeing at its own risk or for the benefit of and on behalf of its customers:

- Moving money either for its own benefit or for the benefit of its customers;

1. bills of exchange, including bills of exchange accepted by the Bank, the term of which does not exceed that customary in the trade in such instruments;

2. promissory notes and other commercial paper, the term of which is not longer than the term customary in the trade in such paper;

3. treasury bills and government guarantees;

4. Certificates of Bank Indonesia (SBI);

5. bonds;

6. commercial paper with a maturity of up to 1 (one) year;

7. other securities with a maturity of up to 1 (one) year;

Financial technology

Bank Indonesia (2016) classifies financial technology into four categories as follows:

1. Crowd funding and peer-to-peer (P2P) lending This classification is based on the function of the platform, namely as a means of meeting capital seekers and investors in the lending sector. This platform uses information technology, especially the Internet, to provide easy money lending services. The lender only provides capital and the borrower completes the lending process through the online platform. This category of financial technology includes information technology-based lending and borrowing services that are regulated and supervised by the Financial Services Authority (OJK). To ensure the safety of users of crowdfunding and P2P lending services in Indonesia, the OJK issued POJK No. 77/POJK.01/2016 on information technology-based lending and borrowing services in 2016.

2. 2. Market aggregator This category refers to a medium that collects and aggregates financial data from different data providers and presents it to users. This financial data can then be used to help users compare and select the best financial products.

3. 3. Risk and investment management The following category is a classification for financial technology services that act as financial planners in digital form. Users can plan and know their financial situation at any time and under any circumstances.

4. 4. Payment, settlement and clearing Financial technology services in this category are designed to help users make payments online.

Internet banking

The definition of Internet banking according to the Financial Services Authority (OJK) is a facility that can be used by bank customers to conduct banking transactions through the Internet network anytime and anywhere. There are three types of online banking activities, namely

1. Informational Internet Banking A form of banking service in which banks provide services to customers via the Internet in the form of information without conducting transactions.

2.Communicative Internet Banking A form of banking service in which banks provide services to customers via the Internet in the form of communication and interaction, without conducting transactions.

3.Transactional Internet Banking A form of banking service where banks can interact with customers and vice versa via the Internet and carry out transactions.

Mobile Banking

The definition of mobile banking (m-banking) according to the Financial Services Authority (OJK) is a banking transaction through mobile phone media, either in the form of m-banking applications or applications integrated with mobile operators. According to Riswandi & Budi Agus (2005), m-banking is an innovative service offered by banks that allows users to conduct banking transactions via smartphones. The features of mobile banking services include information services (balance, account movements, interest rates and location of nearest branch/ATM); and transaction services such as money transfer, bill payment (electricity, water, internet), loan purchase and various other features. To use Mobile Banking, customers must first register with the bank. Customers can use Mobile Banking services by accessing the menu available in the application installed on the mobile phone. If the Customer uses Mobile Banking through the application installed on the mobile phone, the Customer must first download and install the application on the mobile phone. When opening the application, the Customer must enter the User ID and Password to log in, then the Customer can select the available transaction menu and will be asked to enter the OTP when performing the transaction.

Leverage

The leverage ratio is a debt ratio that measures the ratio of total debt to total assets. In other words, the extent to which the company's assets are financed by debt or the extent to which the company's debt influences the management of assets. The definition of the leverage ratio, according to Hery (2017: 190), is the ratio used to measure the extent to which the company's assets are financed by debt. In other words, the solvency ratio is a ratio used to measure how much debt burden the company has to bear in order to fulfil its assets".

According to Hery (2017: 190), companies that have fixed operating costs or fixed capital costs will use the leverage ratio. The use of leverage can create burdens and risks for the company, especially if the company's situation deteriorates. In addition to the company having to pay an increasing amount of interest, the company may be subject to a penalty from a third party. The leverage ratio describes the source of the company's operating funds. The leverage ratio also shows the risk the company is exposed to. The greater the risk the company is taking, the more uncertain it is about making profits in the future.

Profitability

Profitability is the ability of a company to make a profit over a given period for a given level of turnover, assets and share capital. The profitability of a company can be assessed in different ways depending on the profit and assets or capital being compared. According to Sugiyarso & Winarni (2005), profitability is the company's ability to generate profits from sales of total assets and equity. Meanwhile, according to Sartono (2001), profitability is the company's ability to earn profits in relation to sales, total assets and equity. Profitability is important to know whether the company has run its business efficiently or not. The efficiency of a company can be known after comparing the profit earned with the assets or capital that generated the profit.

Hypothesis Development

The impact of Internet banking on bank profitability

According to the Financial Services Authority (OJK), Internet banking is a facility that allows bank customers to conduct banking transactions anytime and anywhere via the Internet network. Based on Arini's research (2021), it is stated that Internet banking has a positive effect on the profitability of banking companies.

H1: Internet banking has a positive impact on the profitability of banking companies.

The impact of mobile banking on bank profitability

The definition of mobile banking (m-banking) according to the Financial Services Authority (OJK) is a banking transaction through mobile media, either in the form of an m-banking application or an application developed by a mobile operator. Based on the research of Imamah & Safira (2021), it is stated that mobile banking has a positive effect on the profitability of banking companies.

H2 : Mobile banking has a positive impact on the profitability of banking companies.

The impact of leverage on bank profitability

The higher the leverage ratio, the higher the investment risk. Therefore, the management of the company tries to keep the leverage ratio in a stable position in order to reduce the risks that both the investors and the management of the company may face, and to increase the value of the company in the eyes of the investors. The higher the solvency ratio, the more a company's assets are financed by debt. Investors will certainly like a low gearing ratio, as company profits will be used to pay dividends rather than debt repayments.

H3: Leverage has a negative impact on banking profitability

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3. Methodology

Population and Sample

The population in this study are conventional banking companies listed on the Indonesia Stock Exchange (IDX) as of December The sample in this study was taken from the population. The sampling technique used in this study is purposive sampling technique, which is the determination of research samples based on certain criteria. The criteria used to select the sample in this study are

- Conventional banking companies listed on the Indonesia Stock Exchange (IDX) in 2022.

- Conventional banking companies that publish financial reports from 2018 to 2022.

- Conventional banking companies that have the availability of the required data from 2018-2022.

- Banking companies that implement fintech services (internet banking and mobile banking) from 2018-2022.

Data Collection Methods

The data collection method used in this research was through documentary studies. The documentation method is a method that uses data derived from documents that are already available. This is done by collecting relevant and current documents in the form of the required data on banking companies.

Research Variables

Dependent Variable

The dependent variable is the variable that is influenced by the independent variable, this variable becomes the effect variable. In this study, the dependent variable (Y) used by the researchers is bank profitability. According to Sugiyarso & Winarni (2005), profitability is the ability of the firm to generate profits from the sale of total assets and equity. The higher the profitability of a company, the higher the value of the company. Therefore, there will be many investors interested in investing in the company. In this study, the researchers measured profitability using the indicator return on assets (ROA).

Return on assets (ROA) = (Net income)/(Total assets) X 100%.

Independent Variable

Independent variables are variables that affect the dependent variable or other variables, this variable becomes the cause variable. In this study, the independent variables (X) used by the researchers include: internet banking as X1 and mobile banking as X2, and leverage as X3.

Data Analysis Method

The data analysis carried out is quantitative data analysis, which is expressed in numbers and calculations using statistical methods supported by SPSS. The data analysis used in this research is descriptive statistical analysis, classical assumption test, multiple regression analysis and hypothesis testing.

This study uses multiple regression analysis models. According to Prof. Dr. Sugiyono (2013), multiple linear regression analysis is used by researchers when the study intends to predict how the state (up and down) of the dependent variable profitability (Y) when three independent variables internet banking (X1), mobile banking (X2) and leverage (X3) as predictor factors are manipulated (up and down values). The method of analysis used in this study is multiple regression, which is used to determine the relationship between related variables using the SPSS programme. The multiple regression equation used in this study is as follows:

$$Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + e$$

$$ROA\ (Y) = a + b_1\ IB + b_2\ MB + b_3\ L + e$$

Description:

Y = Return On Asset (ROA)

a = Constanta

X1 = Internet banking (IB)

X2 = Mobile Banking (MB)

X3 = Leverage (L)

b = Koefesien

e = standard error

4. Result and Discussion

Descriptive Statistics

This study has a population of 42 companies in the conventional banking sector with a sample of 5 companies in the banking sector within a period of five years, starting from 2018-2022. Descriptive statistical analysis is a statistical tool used to describe each independent variable, namely mobile banking, internet banking and leverage, and the dependent variable, namely profitability.

Table 1 - Descriptive Statistical Analysis Results

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Internet Banking	45	0	4870000	563150.22	1194628.004
Mobile Banking	45	2490	15200000	1098621.33	2817958.311
DAR	45	.71	1.27	.8780	.11806
ROA	45	.0037	.0341	.0175	.00759
Valid N (listwise)	45				

Based on Table 1 of the descriptive statistical analysis results, it can be seen that the amount of data from the study is 25 observation data and the results above show that Internet banking has a maximum value of 4,870,000 (in thousands), which is the value from PT Bank Central Asia Tbk. in 2022,

indicating that the company has customers who actively transact using internet banking services. Furthermore, the minimum value is 0, which comes from PT Maybank / BNII in 2020. Then, the mean value is 563,150.22 and the standard deviation is 1,194,628 (in thousands), which means that the standard deviation value is larger than the mean value, so the data distribution is quite large or there is a large gap between the minimum and maximum values of the internet banking variable. The maximum value of Mobile Banking is 15,200,000 owned by PT Bank Central Asia Tbk. in 2022 and the minimum value is 2,490 owned by PT Bank MEGA Tbk. in 2018. Meanwhile, the average value of Mobile Banking variable is 1,098,621.33 and the standard deviation or deviation rate of Mobile Banking variable data is 2,817,958.31, which means that the standard deviation value of Mobile Banking variable is larger than the mean value, so the data distribution is quite large or has a large gap between the minimum and maximum value of Mobile Banking variable. The DAR variable, which is a proxy for leverage, has a maximum value of 1.27, which comes from PT Bank Maspion Tbk (2022). Meanwhile, the minimum value of this variable is 0.71 which comes from PT Bank Pembangunan Daerah Jawa Timur Tbk (2018). From these data, the average value of the leverage variable is 0.878 or 87.80%. In other words, the mean value of the sample companies is in the healthy or good category. Then, the level of data deviation or standard deviation of the ROA variable is 0.1180, which means that there is a low data deviation, so the data distribution is quite even or homogeneous. The ROA variable is a proxy for profitability, which has a maximum value of 0.03. From the data, the banking company with the highest profitability is PT Bank Central Asia Tbk (2022) with a value of 0.0341 or 3.41%. While the banking company with the lowest profitability is PT BNI (2020) with a value of 0.0037 or 0.37%. Meanwhile, the average value of the ROA variable is 0.0175 or 17.5%. Then, the level of data deviation or standard deviation on the ROA variable is 0.00759, which means that there is little data deviation, so the data distribution is quite even or homogeneous.

Normality Test

Table 2 - Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		45
Normal Parameters [a,b]	Mean	.0000000
	Std. Deviation	.00584963
Most Extreme Differences	Absolute	.084
	Positive	.084
	Negative	-.049
Test Statistic		.084
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Guidelines for decision-making:

1. If the Sg (Significance) value > 0.05, then the research data are normally distributed.

2. If the Sg (Significance) value is <0.05, then the research data is not normally distributed.

Based on the results of the normality test above, the sig (significance) value is 0.200 or the value is> 0.05, which means that the research data is normally distributed.

Autocorrelation Test

Table 3 - Autocorrelation Test Result

Model Summary [b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.637[a]	.406	.363	.00605	2.126

a. Predictors: (Constant), DAR, Mobile Banking, Internet Banking
b. Dependent Variable: ROA

Based on the results of the autocorrelation test, it is known:

N = 45

d = 2.126

dL = 1.3832

dU = 1.6662

4-dL = 4-1.3832 = 2.6168

4-dU = 4-1.6662 = 2.3338

Based on the results of the autocorrelation test, we find that dU < d < 4-dU or 1.6662 < 2.126 < 2.3338. It can therefore be concluded that H0 is neither rejected nor accepted.

Multicollinearity Test

Table 3 - Multicollinearity Test Result

Coefficients [a]

| Model | Unstandardized Coefficients | | Standardized Coefficients | | | Collinearity Statistics | |
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	.034	.007		4.876	.000		
Internet Banking	1.344E-9	.000	.212	.836	.408	.227	4.413
Mobile Banking	9.583E-10	.000	.356	1.407	.167	.227	4.413
DAR	-.021	.008	-.325	-2.665	.011	.973	1.028

a. Dependent Variable: ROA

Based on the results of the Multicolinerity test in the table above, it was found that the value of Internet Banking has a tolerance of 0.227 and a VIF of 4.413. Then Mobile Banking shows tolerance results of 0.227 and VIF 4.413. As well as DAR with a tolerance of 0.973 and a VIF of 1.028. This shows that there is no correlation between the independent variables or that there is no multicollinearity problem between the independent variables in the regression model.

Heteroscedasticity Test

Table 4 - Heteroscedasticity Test Result

Coefficients [a]

| Model | Unstandardized Coefficients | | Standardized Coefficients | |
	B	Std. Error	Beta	Sig.
1(Constant)	.009	.004		.053
Internet Banking	5.509E-10	.000	.175	.585
Mobile Banking	-4.348E-10	.000	-.325	.312
DAR	-.005	.005	-.146	.345

a. Dependent Variable: ABS_RES

Based on table 4 a hereto significance test was carried out using the Glejser test. It was found that the results for each variable were

Internet banking = 0.585

Mobile banking = 0.312

DAR = 0.345

This means that each variable has a significance value > 0.05. So it can be concluded that there is no evidence of heteroscedasticity symptoms in this study, so the model is feasible to use and the assumptions have been met.

Multiple Regression Analysis

Table 5 - Multiple Regression Analysis Result

Coefficients [a]

| Model | Unstandardized Coefficients | | Standardized Coefficients | | |
	B	Std. Error	Beta	t	Sig.
1(Constant)	.034	.003		11.892	.000
Internet Banking	1.344E-9	.000	.298	2.040	.048
Mobile Banking	9.583E-10	.000	.501	3.432	.001
DAR	-.021	.003	-.458	-6.500	.00008

a. Dependent Variable: Y1

This study uses the following regression problem

ROA (Y) = a + b1 IB + b2 MB + b3 L + e

ROA = 0.034 + (1.344 IB) + (9.583 MB) + (-0.021 L) + e

The results of the equation give the following results:

1. The constant (α) of (positive) 0.034 indicates that if Internet banking, mobile banking and DAR are assumed to be fixed or equal to 0, then the value of return on assets is 0.034.

2. The coefficient of X1 or Internet banking of 1.344 indicates that each unit increase in the Internet banking variable causes the ROA to increase by 1.344, assuming that the other variables remain equal to 0 or constant.

3. The coefficient of X2 or mobile banking of (positive) 9.583 indicates that each unit increase in the mobile banking variable causes ROA to increase by 9.583, other variables remaining equal to 0 or constant.

4. The coefficient of X3 or DER of (negative) 0.021 indicates that each increase of one unit in the DER variable causes ROA to decrease by 0.021, other variables remaining equal to 0 or constant.

Hypothesis Test

Table 6 – t Test Result

Coefficients ª

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1 (Constant)	.034	.003		11.892	.000
Internet Banking	1.344E-9	.000	.298	2.040	.048
Mobile Banking	9.583E-10	.000	.501	3.432	.001
DAR	-.021	.003	-.458	-6.500	.00008

a. Dependent Variable: Y1

First hypothesis test

This test is conducted to test the effect of internet banking on ROA or profitability. From the results of data processing in Table 4.8, it is known that the t-value is 2.040, while the t-table value is 2.01954, which means t-count > t-table, with a significant level of $0.408 < \alpha = 0.05$. Thus, the first hypothesis that Internet banking has a positive effect on profitability or ROA is accepted, which means that Internet banking has an effect on profitability or ROA.

Second hypothesis test

This test was conducted to test how mobile banking affects profitability or ROA. From the results or in Table 4.8, it can be seen that the t-count is 3.432 while the t-table is 2.01954, which means t-count > t-table with a significant level of $0.001 < \alpha = 0.05$. Therefore, the second hypothesis which states that mobile banking has a positive effect on profitability of banking companies can be accepted, which means that mobile banking has an effect on profitability or ROA measures.

Third hypothesis test

This test was conducted to test the effect of leverage or DAR on profitability or ROA. From the data results in Table 4.8, the t-count is -6.500 while the t-table is -2.01954 which means -t count > -t table with a significant level of $0.00008 < \alpha = 0.05$. So the third hypothesis which states that leverage has a significant negative effect on profitability of banking companies, which means that leverage has a significant negative effect on profitability or ROA measures.

Table 7 – F Test Result

ANOVA ª

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.001	3	.000	55.444	.00008[b]
Residual	.000	41	.000		
Total	.001	44			

a. Dependent Variable: Y1

b. Predictors: (Constant), DAR, Internet Banking, Mobile Banking

Based on table 7, the results of the significant coefficient are obtained, which shows a significant value of 0.00008 with a calculated f value of 55.444 and f table 2.827. So it means that sig <0.05 and f count > f table, then the regression model. So the conclusion is that there is a simultaneous influence of variable X on variable Y.

5. Conclusions and Suggestions

Conclusions

Based on the results of the tests and discussions carried out on the impact of internet banking, mobile banking and leverage on the profitability of banking companies listed on the IDX (study of conventional banking companies) for the period 2018-2022, conclusions can be drawn, namely:

1. Internet banking has a positive impact on return on assets (ROA) because it can increase banks' fee-based income and reduce operating costs compared to transactional services through relatively large branches to pay employees, building rent, security, electricity, and others.

2. The positive effect of mobile banking on return on assets (ROA) cannot be supported by the results of the SPSS 25 test. This is due to many factors, such as the frequent cases of mobile banking break-ins or cyber-attacks in Indonesia, which can harm customers.

3. While leverage has a negative impact on ROA, it proves that investors are more interested in companies with low debt levels than in those with high debt levels. The higher the level of debt used to finance the company, the riskier it is for investors.

Suggestions

Based on the results of this study, suggestions that can be given to future researchers are:

1. For further researchers, it is advisable to use research samples from other banking companies listed on the Indonesia Stock Exchange with a longer research period so that the research results can provide a broader picture of the influence of internet banking, mobile banking and leverage on the profitability of banking companies in Indonesia. 2.

2. For future researchers, it is recommended to add or use other independent variables similar to financial technology in banking. For future researchers, it is suggested that they can use other proxies to measure each variable in this study.

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