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THE INFLUENCE OF OPERATIONAL EFFICIENCY AND NON-INTEREST INCOME ON THE PROFITABILITY OF BANKS REGISTERED ON BEI

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ABSTRACT

The financial sector on the Indonesian Stock Exchange has many subsectors and one of them is the banking sector which is an important subsector for the country and is related to society because banking is involved in its operational activities. Banking is an institution that works as a financial mediator between people who have money and people who need it, and an institution that speeds up the flow of payments. Therefore, third party funds (public funds) must have a good financial reputation. For this reason, banking health is important to pay attention to. Healthy banking is banking that can generate good profits (profitable). Profitability can be determined by the level of bank operational efficiency. The aim of this research is to determine the influence of Operational Efficiency and Non-Interest Income on banking Profitability. The variables in this research are Operational Efficiency and Non-Interest Income. Sampling used purposive sampling technique with certain criteria. With a final sample of 27 banking companies listed on the Indonesia Stock Exchange in 2018-2022. The method used in this research is panel data regression analysis using eviews 12. The research results show that operational efficiency has a significant influence on banking profitability, and non-interest income has a significant influence on banking profitability.

Keywords: Profitability, Operational Efficiency, Non-Interest Income.

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INTRODUCTION

Profitability is a very important factor in banking, in this case banks must be able to maintain their profitability. Profit or profitability is evidence of a bank's ability to generate profits over a certain period of time. Profitability can describe banking performance through profits from all features and assets that can be utilized such as promotions for deposits, turnover, modality, many personnel, and many branch offices. From this understanding it can be concluded that profitability is the ability of banks to generate profits over a certain period of time (Estate et al, 2016) .

According to Dendawijaya (2009) , ROA, ROE, BOPO, and NIM are financial ratios, each of which provides different insights related to the performance of a bank. ROA (*Return On Assets*) focuses on how efficiently a bank generates profits from its total assets. On the other hand, ROE (*Return On Equity*) assesses a bank's profitability based on its own equity or capital. BOPO measures a bank's operational efficiency, while NIM focuses on the difference between interest profits and interest expenses. ROA is considered better than

several other ratios in measuring bank performance. ROA reflects how much profit a bank generates for each unit of its assets. The greater the ROA value, the more effective the bank is in creating profits from investing funds in income-generating assets. A high *Return On Assets* shows that the bank has good potential for making profits from the use of assets, while a decreasing *Return On Assets* means that it shows inefficiency in management in managing banking resources.

Operational efficiency is seen as an important factor in Bank profitability. Operational efficiency means effective management of company costs. Indeed, functional efficiency is considered the most important predictor of banking survival. A bank's long-term profitability and productivity as a bank's overall results depend largely on how efficiently the organization uses its resources. Empirical evidence also finds that as bank efficiency increases, the likelihood of default becomes weaker, which in turn increases marginal profits. Because, the impact of operational efficiency in determining previous bank performance has been proven, this research is focused on the scope of operational efficiency analysis (Mehzabin & Shahriar, 2022) .

Operational efficiency is very important for banking. The aim is to find out whether the bank is really working well, in the sense of meeting the expectations of management and shareholders. Operational efficiency can influence bank profitability, stating whether the bank has used all production factors wisely and efficiently to create profitability (Rindhatmono, 2005) .

Operational banking activities are similar to other economic activities which aim to gain profits through the provision of financial services, such as providing loans, raising funds and other financial transactions. The main banking profit from the interest difference is called spread based income. Currently, banking profits are not only obtained from credit interest, but also from non-interest income obtained through transactions and sales of other financial facilities. Profits obtained through other financial activities are usually considered non-interest income (Ginting, 2018) .

Non-interest income is income from services other than loan interest. Such services as the most well-known include clearing, transfers, accepting deposits, offering cash payment options, simple and convenient payment tools such as electronic ATM cards for all the functions of return payment services provided by banks generating fees, commissions and other income from business operations (Flowers et al, 2014) .

Therefore, company profitability is influenced by factors including operational efficiency and the company's non-interest income. This is a way to increase profits in the banking sector. Along with non-interest income, bank income will increase and company profitability will improve. This can be seen through an increase in *return on assets* . This means, in other words, that increasing non-interest income has an impact on the profitability of banking companies.

It can be concluded that the average bank listed on the Indonesian Stock Exchange has experienced a decline in ROA from 2019 to 2020. This fluctuation indicates a change in banking efficiency when using its assets to generate profits. Apart from that, a decrease in ROA also affects non-interest income, because it can reduce the company's ability to generate profits from its investments and operations. It is necessary to carry out an in-depth analysis to understand a more specific relationship between the influence of operational efficiency and non-interest income on ROA.

The emergence of agency theory is due to the division of responsibilities between owners and managers, this is because the company is no longer able to fulfill its financial obligations, so it depends on one owner. According to Jensen & Meckling, (1976), this agency problem is often referred to as "agency problem" which occurs when managers do not implement it in accordance with investors' wishes. Managers will focus on their own needs

by setting high wages or increasing management facilities, because half of them will depend on other investors. The second is between investors and creditors, managers through shareholders can receive interest from creditors, this problem can become more complicated because investors and creditors have different forms of income.

Profitability reflects a company's skill in generating profits efficiently and effectively. The profitability ratio, as an evaluation tool, provides an overview of how well the company is able to achieve profits (Wahyuni & Mayliza, 2018) .

Operational efficiency is a factor that can impact bank profitability, namely whether the bank uses its production factors rationally and efficiently to gain profits

According to Kasmir (2012) , non-interest income (commission income) is income from transactions recorded on other banking services. Influence Efficiency Operational To Company Profitability , operational efficiency affects bank profitability, namely whether the bank uses production factors rationally and efficiently to produce profits (Rindhatmono, 2005). According to Mayliza et al (2020) , operational efficiency is calculated using operating costs, operating income (BOPO)

According to previous research, operational efficiency is seen as an important factor in bank profitability. Operational efficiency means effective management of company costs. Indeed, operational efficiency is considered the most important predictor of banking survival. A bank's long-term profitability and productivity as a bank's overall results depend largely on how efficiently the organization uses its resources. Empirical evidence also finds that as bank efficiency increases, the likelihood of default becomes weaker, which in turn increases marginal profits. Because, the impact of operational efficiency in determining previous bank performance has been proven, this research is focused on the scope of operational efficiency analysis (Mehzabin & Shahriar, 2022) .

H_1 Operational Efficiency has a Positive Effect on Banking Profitability.

Influence Non- Interest Income To Company Profitability **,** Non-interest income, namely as representation and income. Foreign exchange commissions and brokerage fees, investment income, foreign exchange profits, dividend income services, profits from asset sales are considered as sources of income other than interest on money (Saimun & Faruk, 2019) .

From Pambudi's research (2023) , this shows that the growth of non-interest income has a positive impact on banking profitability in Indonesia, reflecting that increasing this ratio will increase the profits obtained by banks. Apart from that, non-interest income also has a positive influence on managing risk in the Indonesian banking sector. Meslier et al (2014), in their study of developing economies investigate whether bank profitability is supported by a shift towards non-traditional banking business from more diversified international banks than state banks.

According to previous research Chiorazzo, V.et al (2008) , looked into the Italian banking sector and Elsas et al (2010) , examined the banking sector of developed countries and revealed that bank profitability is positively influenced by non-interest income. Furthermore, Stiroh (2004) , identified that income obtained from various sources is more uncertain compared to conventional activities that generate more income. Therefore it allows us to take the following hypothesis:

H_2: Non-Interest Income has a Positive Effect on Banking Profitability.

RESEARCH METHODS

Within the framework of this research, quantitative research methods are used as the main approach. According to Creswell (2012), the quantitative approach requires researchers to explain how one variable influences other variables. This research will assess operational efficiency and non-interest income as variable .

This research was conducted on banking entities listed on the Indonesia Stock Exchange by utilizing financial reports issued by these banking companies in the 2018 - 2022 period which the author obtained via URL : www.idx.co.id.

In this research, the population consists of all banking companies listed on the Indonesia Stock Exchange, with a total of 46 banks.

Sampling was carried out using the purposive sampling method, namely a sampling technique by selecting subjects according to criteria set by the researcher. The criteria used involve the following:

1. Banks listed on the Indonesian Stock Exchange 2018-2022.
2. Banks that publish consecutive complete financial reports during the 2018-2022 observation period.
3. Registered bank that do have data according to research variables or indicators, namely net profit, total assets, non- interest income and operational expenses
4. Banks that made profits consecutively during the 2018-2022 observation period

Table 1
***Porpusive Sampling Method* Criteria**

No	Criteria	Amount
1	Number of banks on the Indonesian Stock Exchange 2018-2022	46
2	Incomplete banking financial reports from 2018-2022	(5)
3	Registered banks that do not have data according to research variables or indicators, namely net profit, total assets, non-interest income and operational expenses	(6)
4	Banks experienced losses during the 2018-2022 period	(8)
5	Total sample of companies	27
6	Year of observation period	5
7	Number of observations 5 x 30	135

Table 2
Operational Definition of Variables

Variable	Definition	Indikator	Source
Operational Efficiency (X_1)	Operational efficiency is something that influences bank profitability.	Operational Efficiency $=\frac{\text{rasio beban non bunga}}{\text{total aset}}$	Ahmed et al (2021)
Non-Interest Income (X_2)	Income derived from transactions in	Non-interest income =	Hossain, S. and

Variable	Definition	Indikator	Source
	various banking services other than interest.	$\frac{\text{rasio pendapatan non bunga}}{\text{total aset}}$	Ahamed (2021)
Profitability (Y)	Profitability indicates a company's ability to earn profits.	ROA $=\frac{Laba\ Bersih}{Total\ Aset} x\ 100\%$	Fahmi (2011)

The type of data used in this research is quantitative data, namely information that is realized in the form of numbers or scores, and tends to be analyzed using statistical techniques. The data used in this research comes from secondary data sources, which is information obtained indirectly by data collectors, such as through intermediary people or other materials (Sugiyono, 2018). The source of this data mainly comes from banking financial reports listed on the Indonesia Stock Exchange (BEI). The data collection method applied is the documentation method. Documentation involves the use of journals, books, and taking data from online publications via the IDX website, especially banking financial report data from 2018 to 2022.

Analysis Statistics Descriptive

According to (Sugiyono, 2018) descriptive statistics are statistics related to methods of providing useful information where these methods are related to collecting and conveying a group. This analysis explains the research data whether the variables are normally distributed or not by looking at the average value (mean), standard deviation, maximum value and minimum value.

Test Model Feasibility

In this research, descriptive statistical discussion methods and panel regression were used using the Eviews program (Winarno, 2017) . In addition, Multiple Linear Regression analysis, or what is known as ordinary least squares, is used to evaluate the level of significance of the regression coefficient of each independent variable on the dependent variable. This research also includes three panel data regression methods, namely the general effects method, fixed effects method, and random method.

1. *Cammon Effect Model* (CEM)
   The Common Effect Model (CEM) approach integrates all data regardless of time and location of search. Wulandari (2018) states that this method assumes the same nature of data between unit cuts in all time periods. This approach also assumes that the intercept for each variable is uniform, as are the slope coefficients for all cross-sectional units and time series data.
2. *Fixed Effect Model* (FEM)
   According to Gujarati (2006) , explains that to overcome heterogeneity in the unit cross-section panel regression model, it can be done by providing different initial values for each cross-section unit, but still maintaining the assumption that the slope does not change.
3. *Random Effect Model* (REM)

In the Random Effect Model estimation method, this approach assumes that personal effects are random for all cross-section units(Wulandari, 2018).

Test Carry on

1. **Chow test (*chow test*)**

The Chow test is a test tool used to determine whether the fem or cem model is more suitable for panel data analysis (Widarjono, 2007). Decisions are taken based on:

a. If the probability value F exceeds the critical threshold, the null hypothesis is rejected or the fixed effect is chosen rather than the common effect.
b. If the probability value F exceeds the critical threshold, the null hypothesis is accepted or a common effect can be used instead of a fixed effect.

2. **Hausman *Test* _**

According to Widarjono (2007) the Hausman test is a statistic that helps determine whether the fem or brake model is more appropriate. Decisions are taken if:;

a. If the calculated chi square value exceeds the chi square value in the table or the chi square probability value is less than the significance level, then the null hypothesis is rejected or a fixed effect is used instead of a random effect.
b. If the calculated chi square value is smaller than the chi square value in the table or the chi square probability value is greater than the significance level, then the null hypothesis is accepted or a fixed effect is used.

Selection of the Best Model

a. In profitability testing with a threshold greater than 0.05, it can be concluded that the Common Effect Model (CEM) is significantly better than the Fixed Effect Model (FEM) based on the Chow test.
b. If the Chow test concludes that the profitability value is <0.05, the Fixed Effect Model (FEM) is chosen as the best compared to the Common Effect Model (CEM). Future studies, such as Hausman's study, will be conducted to validate that FEM performs better than Random Effect Model (REM) when profitability is <0.05.
c. If the Chow test produces a profitability of less than 0.05, then the Random Effect Model (REM) will be selected, indicating a preference for REM over the Fixed Effect Model (FEM). In Hausman's experiment, if profitability is greater than 0.05, this indicates a tendency to apply FEM rather than REM.

U ji Assumption Classic

a. **Test Normality**

In this research, the classic research hypothesis will be applied, namely the normality test. According to Winarno (2017) , the normality test is used to determine the data and is collected from each variable Y and the independent variable or both variables with normally distributed data. If the Jarque-Bera probability value: alpha level is 5 % , it means the data is normally distributed and vice versa if the Jarque-Bera probability value <; An alpha level of 5% indicates that the data is not normally distributed.

b. **Multicollinearity Test**

Multicollinearity refers to the existence of almost perfect linear correlation between all or most of the independent variables. The goal is to assess the relationship between the dependent and independent variables in the regression model. Multicollinearity detection can be done through testing tolerance values and Variance Inflation Factor (VIF). An indication of multicollinearity appears if the tolerance value is less than 0.10 or the VIF value is more than 10. Good results are obtained when the tolerance

value is equal to or less than 0.10, or the VIF value is equal to or more than 10, indicating the absence of multicollinearity.

Analysis Panel Data Regression

This research aims to observe the impact of the independent variable on the dependent variable. Panel data regression analysis is used to assess the validity of the proposed hypothesis, with a significance level of 5%. The estimated statistical model, according to Yusra et al. (2017), is considered the best model and complies with classical assumptions, with the following equation:

$$Y_{it} = \alpha + \beta 1 X1it + \beta 2 X2it + e$$

Information :

Yit = Return on assets
α = Constant
X_{1it} = Operational Efficiency
X_{2it} = Non-Interest Income
β_1 = Operational Efficiency Regression Coefficient
β_2 = Non Interest Income Regression Coefficient
e = Error

Test Hypothesis

1. T test

Statistical tests measure how far an independent variable personally explains the dependent variable. The testing criteria use a significance level of 0.05. If the t-count value exceeds the t-table or the significance value is <5%, then the null hypothesis is rejected or the alternative hypothesis is accepted. Conversely, if the t-count value is lower than the t-table or a significance value of 5%, then the null hypothesis is accepted or the alternative hypothesis is rejected (Yusra et al., 2017).

RESULTS AND DISCUSSION

Descriptive statistics aims to outline or briefly describe the facts about the variables involved in the research. In addition, descriptive statistics are used to illustrate research examples through aspects such as maximum value, minimum value, average value, and standard deviation.

Based on the statistical analysis carried out by researchers, significant information can be found in the following table:

Table 3
Descriptive Statistics Test Results

	Roa	Efficiency Operational	Non- Interest Income
Mean	1.1263630	3.116015	1.308326
Maximum	4.409000	5.639000	5.558000
Minimum	0.018000	1.151000	0.046000
Std. Dev	0.989261	0.998858	1.126144

Observations	135	135	135

Source: eviews data processing 12

In table 3 there are descriptive values for each variable with a total of 135 observations. Descriptive analysis is described as follows:

1. Profitability ROA (Y) as a dependent variable shows a minimum value of 0.018000 and a maximum value of 4.409000. The overall mean is 1.1263630, and the standard deviation is 0.989261.
2. The independent variable Operational Efficiency (X1) shows the lowest value of 1.151000 and the highest value of 5.639000. The overall mean is 3.116015, and the standard deviation is 0.998858.
3. The independent variable Non-Interest Income (X2) shows the lowest value of 0.046000 and the highest value of 5.558000. The overall mean is 1.308326, and the standard deviation is 1.126144.

Normality test

The normality test is used to evaluate the normal distribution of data collected from each variable Y and the independent variable or both. The normality of the data can be observed through the Jarque-Bera Probability value. An alpha level of 5% indicates that the data is normally distributed; conversely, if the Jarque-Bera Probability value is <5% alpha level, this indicates that the data does not have a normal distribution.

Table 4
Normality test table

probability	**0.010485**
Jarque - Bera	9.1115534

Source: eviews data processing 12

After carrying out the Jarque-Bera Test, it was found that the probability value of JB (Jarque-Bera) was 0.010485, which was lower than the alpha level of 0.05 (5%). From these results, it can be concluded that operational efficiency, non-interest income and profitability do not follow a normal distribution, so the test cannot be carried out. To overcome this, data transformation needs to be carried out.

After going through the data healing process, the normality test results can be seen in the summary depicted in the table below:

Table 5
Normality test table after healing

Probability	**0.217746**
Jarque – Bera	3.048854

Source: eviews data processing 12

After undergoing testing using the Jarque-Bera Test, the JB (Jarque-Bera) probability value was 0.217746, which was higher than the alpha level of 0.05. Thus, it can be concluded that operational efficiency, non-interest income and profitability have a normal distribution, and further testing can be continued.

Multicollinearity test

The multicollinearity test can identify the relationship between independent variables by looking at the correlation value. If the correlation value is > 0.80, then the null hypothesis is rejected, indicating a multicollinearity problem. And conversely, if the correlation value is <0.80, then the null hypothesis is accepted, indicating that there is no multicollinearity problem.

Table 6
Multicollinearity Test Results

	X1	X2
X1	1,000000	0.46739477
X2	0.46739477	1,000000

Source: eviews data processing 12

From the information in table 6, it can be seen that the relationship between these variables is less than 0.80, which is where the null hypothesis is accepted, indicating that there is no multicollinearity problem.

Panel data regression analysis

Table 7
Panel Data Regression Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.419868	0.258277	1.625652	0.1064
X1	0.215397	0.062648	3.438203	0.0008
X2	0.131911	0.064587	2.042358	0.0431

Source: eviews data processing 12

The Random Effect Model Panel Data regression equation is as follows:

$$Yit = 0.419868 + 0.215397\ X_1 + 0.131911\ X_2 + e$$

From the results of the data analysis above, it can be described through a regression model as follows:

1. The values in the Panel Data Regression Equation are obtained from the variable coefficients. This constant value of 0.419868 explains that if all independent variables are assumed to be zero, profitability will remain at 0.419868.
2. The operational efficiency coefficient of 0.215397 reflects that every one unit increase in operational efficiency will result in an increase of 0.215397 in the profitability variable, assuming other variables remain constant.
3. The non-interest income coefficient of 0.131911 illustrates that every one unit increase in non-interest income will contribute to an increase of 0.131911 in the profitability variable, assuming other variables remain unchanged.

Hypothesis testing

The purpose of hypothesis testing is to assess the extent to which variable conversely, if the probability of the t-calculated value is smaller than the t-table value, then the alternative hypothesis (Ha) can be rejected and the null hypothesis (H_0) is accepted. The significance level used is 0.05 (5%).

Table 8
T Test Results

Variables	t-Statistics	t- table	Prob.	Alpha	Conclusion
Non-interest income	2.042358	1.977961	0.0431	0.05	H1 is accepted
Operational Efficiency	3.43 8203	1.977961	0.0008 _	0.05	H2 is accepted

Source: eviews data processing 12

In the table above, the test results are specifically stated as follows:

1. The results of the t (partial) test on the regression model show a calculated t-value of around 3.438203 > 1.977961, with a significance variable of operational efficiency of 0.0008 < 0.05 (5% significance level). In conclusion, it can be suggested that partially, operational efficiency has a significant impact on banking profitability.
2. From the t test (partial) on the model regression, the calculated t-value was around 2.042358 > 1.977961, and the significance of the non-interest income variable was 0.0431 < 0.05 (5% significance level). In conclusion, it can be interpreted that partially, non-interest income has a positive and significant influence on banking profitability.

Influence Efficiency Operational To Profitability Banking

From the results of this research, it was revealed that operational efficiency has a t-value of 3.438203, with a significance level of around 0.0008 which is smaller than 0.05. This indicates that operational efficiency influences banking profitability. Therefore, it can be concluded that the first hypothesis is accepted. This means that the level of company operational efficiency has an impact on banking profitability results.

The results of this research are in accordance with research by (Mehzabin & Shahriar, 2022) , (Masdupi, 2014) and (PUTRI, 2020) , which shows that the level of operational efficiency has a positive impact on banking profitability. When a bank becomes more efficient in carrying out its operations, profitability (ROA) will increase. The reduction in costs faced by banks will lead to increased efficiency, which in turn contributes to increased banking profitability.

Influence Non- Interest Income To Profitability Banking

The research findings state that the increase in non-interest income has a significant positive impact on banking profitability, in line with the significance level of 0.0431 which is small from the value of 0.05. Thus, it can be agreed to the second hypothesis which states that non-interest income positively influences banking profitability. This implies that changes in non-interest income can influence changes in returns on assets of banking companies listed on the Indonesia Stock Exchange. So, this research provides a strong foundation for understanding the dynamic relationship between non-interest income and banking financial performance.

The results of this research are similar to research by (Burta, 2018) , (Sari & Isynuwardhana, 2023) and (Ginting, 2018) which states that non-interest income has the potential to increase banking profitability, indicating that the existence of this source of

income can contribute to increasing profitability banking sector.

CONCLUSION

Based on the results of research and discussion regarding the Influence of Operational Efficiency and Non-Interest Income on Banking Profitability in Banking Companies Listed on the Indonesian Stock Exchange for the 2018-2022 period using panel data regression analysis techniques.

1. Operational efficiency has a positive and significant effect on banking profitability. Therefore, the more efficient a bank is in running its business, the more banking profitability will increase. The first hypothesis is accepted.
2. Non-interest income has a positive and significant effect on banking profitability. Therefore, the higher non-interest income can result in an increase in banking profitability. The second hypothesis is accepted.

Suggestion

Suggestions that can be given writer based on study on is as following :

1. It is hoped that banks will pay more attention to operational efficiency and non-interest income will become a concern for bank management, because operational efficiency has an influence on increasing banking profitability. With fewer costs incurred by banks, banking efficiency will increase and banking profitability will also increase. Apart from that, banks must also prioritize non-interest income because it also has an influence on banking profitability. Because with the increase in non-interest income from various efforts made by banks, profitability will also increase.
2. For future research, it is recommended to expand the scope to obtain more comprehensive information. While the author is aware of the shortcomings in this research, it is hoped that the results of this research can provide a useful basis for future research.

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BIBLIOGRAPHY

Ahmed, S., Majeed, M. E., Thalassinos, E., & Thalassinos, Y. (2021). The Impact of Bank Specific and Macro-Economic Factors on Non-Performing Loans in the Banking Sector: Evidence from an Emerging Economy. *Journal of Risk and Financial Management*, *14*(5), 217. https://doi.org/10.3390/jrfm14050217

Bunga, P., Income, I., & Kecukupan, D. A. N. (n.d.). *Pengaruh pendapatan non bunga (*.

Burta, F. S. (2018). *pengaruh pendapatan non bunga (non interest income) terhadap kinerja*

perbankan. *4*(1), 430–439.
Chiorazzo, V., Milani, C. dan Salvini, F. (2008). Diversifikasi pendapatan dan kinerja bank: bukti dari bank-bank Italia. *Journal of Financial Services Research*.
Creswell. (2012). *Research design : Qualitative quantitative and mixed methods approaches*.
Dendawijaya, L. (2009). *Manajemen perbankan* (Ed. 2, Cet). Jakarta : Ghalia Indonesia.
Elsas, R., Hackethal, A. dan Holzhauser, M. (2010). *The anatomi of bank diversification*.
Estate, R., & Sudaryo, Y. (2016). *PENGARUH STRUKTUR MODAL DAN LIKUIDITAS TERHADAP*. *15*(2), 1–20.
Fahmi, I. (2011). *Analisis Laporan Keuangan*.
Ginting, M. B. L. (2018). Pengaruh Fee Based Income (Pendapatan Non Bunga) terhadap Return on Assets pada Perbankan yang terdaftar di Bursa Efek Indonesia. *Universitas Muhammadiyah Sumatera Utara*, *5*, 8–9.
Gujarati. (2006). *Dasar dasar Ekonometrika* (erlangga).
Hossain, S. and Ahamed, F. (2021). *Analisis Komprehensif tentang Penentu Profitabilitas Bank di Bangladesh*.
Jensen, M. ., & Meckling, W. . (1976). Theoty of the firm : Managerial behavior, agency cost and ownership stucture. *Journal of Financial Economics*.
Kasmir. (2012). *Analisis Laporan Keuangan*. PT. Raja Grafindo Persada.
Masdupi, E. (2014). *PENGARUH EFISIENSI OPERASIONAL TERHADAP PROFITABILITAS SEKTOR PERBANKAN*. *3*.
Mayliza, R., Suryadi, N., & Ritonga, I. (2020). Pengaruh Inflasi, Biaya Operasional Terhadap Pendapatan Operasional (Bopo), Dan Pangsa Pasar Terhadap Profitabilitas Bank Umum Syariah Di Indonesia Priode 2012-2018. *Jurnal Tabarru': Islamic Banking and Finance*, *3*(1), 1–10. https://doi.org/10.25299/jtb.2020.vol3(1).4724
Mehzabin, S., & Shahriar, A. (2022). *The effect of capital structure , operating efficiency and non-interest income on bank profitability : new evidence from Asia*. *7*(1), 25–44. https://doi.org/10.1108/AJEB-03-2022-0036
PAMBUDI, R. G. (2023). *Pengaruh Pendapatan Non-Bunga Terhaap Profitabilitas Dan Resiko Perbankan Sebelum Dan Selama Masa Pandemi Covid-19 Pada Bank Konvesional Yang Terdaftar Dalam Bursa Efek Indonesia*. UNIVERSITAS GADJAH MADA.
PUTRI, A. R. (2020). PENGARUH EFISIENSI OPERASIONAL, LIKUDITAS, DAN RISIKO KREDIT TERHADAP PROFITABILITAS BANK. *Skripsi*, *23*.
Rindhatmono, F. (2005). *Analisi Faktor Faktor yang Mempengaruhi Profitabilitas Bank Pasca Merger di Indonesia*.
Saimun, H., & Faruk, A. (2019). *COMPREHENSIVE ANALYSIS ON DETERMINANTS OF BANK PROFITABILITY IN*. 1–30.
Sari, P. W., & Isynuwardhana, D. (2023). *Pengaruh Pendapatan Bunga , Pendapatan Non-bunga , dan Diversifikasi Pendapatan terhadap Risk-adjusted Return on Assets (RAROA) (Studi pada Perusahaan Perbankan yang Terdaftar di Bursa Efek Indonesia Periode 2016-2020) Effect of Interest Income , Non-*. *10*(2), 1291–1299.
Stiroh, K. (2004). *Diversification in banking: is noninterest income the answer?*
Sugiyono. (2018). *Metode penelitian kuantitatif (alfabeta)*.
Wahyuni, I., & Mayliza, R. (2018). *Peran Kebijakan Deviden Dalam Memediasi Pengaruh Profitabilitas Terhadap Nilai Perusahaan*.
Widarjono, A. (2007). *Ekonometrika Teori dan Aplikasi untuk Ekonomi dan Bisnis*.
Winarno, W. W. (2017). *Analisis Ekonimetrika DAn Statistika Dengan Eviews*.
Wulandari. (2018). *Pengaruh Pengungkapan Corporate Social Responsibility terhadap Profitabilitas perusahaan (Studi Empiris Perusahaan Manufaktur Sub Sektor Semen periode*.