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The Effect of Credit Risk, Liquidity Risk and Operational Risk to Profitability in Conventional Banks Listed on Indonesia Stock Exchange Period 2019-2021

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ABSTRACT

This study has the aim of knowing the Effects of Credit Risk, Liquidity Risk and Operational Risk on Profitability at Conventional Banks listed on the Indonesia Stock Exchange (IDX) for the 2019-2021 period. The data source used is financial data in each bank's financial statements and the website www.idx.co.id. the data has been sorted based on the criteria and the research population is Conventional Commercial Banks, totaling 43 banks. The analytical model used is multiple linear regression analysis with simultaneous (F test) and partial (T test) tests using IBM SPSS Statistics 25. The results of this study can be concluded that the results of the hypothesis test concluded that Credit Risk, Liquidity Risk and Operational Risk have a simultaneous effect on Profitability. The results of the partial test concluded that Credit Risk, Liquidity Risk and Operational Risk have an effect on Profitability.

Keywords: Bank, Stock, Risk, Profit

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INTRODUCTION

Bank as an institution that plays an important role in encouraging the development and growth of the economy. As explained in Law no. 10 of 1998, November 10, 1998 concerning Banking, stipulates that "Banks are defined as business entities that can collect money from the public in the form of savings and distribute it to the public in the form of savings, a means to improve the standard of living of the common people". Thus, banks also have a role as a party that can collect funds from people who have financial surplus (surplus), as well as distribute funds to people who are financially deficient (Wahyudi, Nabela & Sari, 2021).

The way to judge whether banking is good or bad is seen from its financial performance. How is the financial position, financial information and performance of the company in the previous period, then used as a basis for predicting future financial performance. Talking about the bank's financial performance, you can use the profitability ratio as a benchmark (Cahyani & Sujana, 2021., Pratama et al., 2019). Profitability is the most important measure used to assess the good or bad performance of a bank (Dewi & Wartana, 2021). The level of profitability is an indicator to evaluate a company's ability to make a profit. The higher the profit received, the higher the profit earned by the bank. Conversely, if the bank earns a low profit, the profit earned by the bank will also be low. The level of profit will be a benchmark for the survival of the bank in the activities it manages, the bank achieves maximum operating income with minimal operating costs.

As a financial institution, banks need to pay attention to their financial performance in order to carry out their activities optimally. Indonesian Banking Statistics (SPI) OJK states that the financial performance of banking companies fluctuates every year (https://www.ojk.go.id). Indonesian Banking Statistics Data (SPI) records the ratio of ROA from 2019 to 2021 at Conventional Commercial Banks that is fluctuating, along with Indonesian Banking Statistics (SPI) data from the Financial Services Authority (OJK).

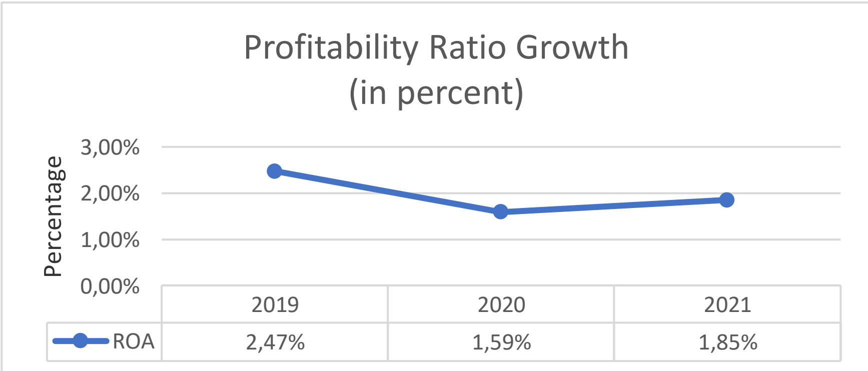

Figure 1. Profitability Ratio Growth
Source: Indonesian Banking Statistics Data

Based on the Figure 1, it can be seen that banking performance is based on the movement of Return On Asset (ROA) data at Conventional Banks from 2019 to 2021. ROA in 2020 has decreased by 1.54%. so that based on the data taken from the Indonesian Banking Statistics (SPI), Covid-19 is said to have affected the performance of banks in Indonesia.

ROA is a ratio that reveals how big the role of assets is in obtaining net income, unhealthy ROA can indicate a decrease in banking capabilities. The higher the bank's ROA results, the higher the level of profit that the bank will get, the higher the bank's position in the use of its assets, and the better the bank's financial performance. Conversely, the lower the ROA results, the lower the amount of net profit generated from the bank's ROA level (Maryana & Widiastuti, 2020).

Due to bank profitability problems and the risks that arise, it is necessary to do research in order to achieve profitability. Banking that runs operations to get profits, banks are inseparable from risks because they are often faced. The risks that occur can trigger a loss for the bank, if discoveries are found that are not monitored and do not operate as they should. Thus, banks must be able to understand and explore the risks that may occur in carrying out their operational activities (Suryani & Mardiansyah, 2021). In banking, risk is a potential event, both of which predictable or unpredictable which will later have a negative impact on bank income and capital. During the Covid-19 pandemic, banking risks received special attention from Bank Indonesia.

The author intends to conduct research on conventional banks on the Indonesia Stock Exchange (IDX) because this will likely have an impact on improving the financial performance and operational performance of the bank as well as corporate value evenly. And also helps stakeholders including investors to be able to know the effect of credit risk, liquidity risk and operational risk on profitability. Based on the description above, the authors are interested in conducting research with the title "The Effects of Credit Risk, Liquidity Risk and Operational Risk on Profitability at Conventional Commercial Banks Listed on the Indonesia Stock Exchange for the 2019-2021 Period".

LITERATURE REVIEW

Banks

Bank According to the Law of the Republic of Indonesia Number 7 of 1992 concerning banking as amended by Law Number 10 of 1998, the definition of a bank is a business entity that collects funds from the public in the form of deposits and distributes them to the public in the form of credit and or other forms in order to improve the standard of living of the people. Meanwhile, based on the Decree of the Minister of Finance of the Republic of Indonesia Number 792 of 1990 the definition of a bank is an entity whose activities in the financial sector collect and distribute funds to the public, especially to finance company investments. So from the above understanding it can be concluded that a bank is an institution whose activities collect and distribute funds to and from the public which has the function of facilitating payment traffic. Another definition of a bank is a financial institution whose main business is providing credit and services in payment traffic and money circulation (Nurastuti, 2015:21-22).

Financial Performance

According to Kristianti (2018), financial performance is an analysis that is used to see how far a company has performed using the rules of financial implementation properly and correctly. The stages that can be used to analyze financial performance are to review the financial report data that has been prepared in accordance with generally accepted accounting standards. So that the resulting report can be accounted for. Other analyzes can carry out an entry assessment at the stage of adjustment to conditions and problems so that the results of these calculations will provide conclusions according to the desired analysis. As well as to compare the results of calculations that have been carried out in several similar companies. The most commonly used methods are:

a. Time series analysis, namely comparing between times or between periods. With this goal will be seen graphically. b. The cross-sectional approach is to compare the results of calculating the ratios that have been carried out between one company and other companies in a similar scope, which are carried out simultaneously. c. Perform interpretation of the various problems that are done. d. Look for and provide solutions to various problems found.

Financial Ratios

According to Hery (2015: 508), financial ratios are a calculation of ratios using financial statements that function as a measuring tool for examining the financial condition and performance of a company. Financial ratios are numbers obtained from the results of a comparison between one financial report item and another that has a relevant and significant relationship. Internal comparisons are made between one item and another in one financial report or between items in the financial statements. Financial ratios show a systematic relationship in the form of comparisons between estimates (posts) of financial statements.

Ratio and Risk

1. Profitability Ratios

According to (Kasmir, 2018: 89), this ratio is used to determine the company's ability to earn profits from various policies and decisions that have been taken. This ratio is one that is used to measure a company's profitability by dividing net income by the average total assets. The higher the ROA means the higher the amount of net profit generated from each rupiah of funds embedded in total assets. Conversely, the lower the ROA, the lower the amount of net profit generated from each rupiah of funds embedded in total assets (Hery, 2015: 556). The following is the formula used to determine Return On Assets (ROA) based on Bank Indonesia Circular Letter No. 13/30/DPNP dated 16 December 2011 is as follows:

$$\boldsymbol{ROA = \frac{Net\ Income}{Total\ Asset}\ X\ 100\%}$$

Source: circular letter of Indonesia’s Bank No.13/30/DPNP (2011)

2. Banking Risk

Banking risk is the risk experienced by the banking business sector as a form of various decisions made in various fields such as credit decisions, credit card purchases, foreign exchange, collections, and various other forms of financial decisions. This has resulted in losses for these banks, and the biggest losses are in the form of finance. Banking risk focuses on financial issues because the banking business is a business engaged in financial services. (Fahmi, 2014: 160-161).

3. Credit Risk

In this study the ratio used as a proxy for credit risk is measured by the Non Performing Loan (NPL) ratio. Based on Bank Indonesia Circular Letter No.8/31/DPBPR dated 12 December 2006, the Non Performing Loan (NPL) ratio aims to determine the nominal amount of loans with substandard, doubtful and loss qualities. The current maximum ratio of Non-Performing Loans allowed by Bank Indonesia is 5%, if it exceeds 5% it will affect the assessment of the Bank's Soundness Level, which will reduce the value. The greater the level of the Non Performing Loan (NPL) ratio indicates that the bank is not professional in managing credit (Gayatri et al., 2019). The formula for calculating credit risk can be seen below:

$$NPL = \frac{Non\ Performing\ Loan}{Total\ Asset}\ X\ 100\%$$

Source: Maryana & Widiastuti, (2020).

4. Liquidity Risk

Adhim (2019), stated that the LDR ratio describes the ability of a bank to repay withdrawals made by depositors by relying on credit provided as a source of liquidity. The LDR ratio is formulated by comparing the amount of credit disbursed with third party funds. According to Bank Indonesia Circular Letter Number: 15/41/DKMP dated 1 October 2013, the lower limit for the LDR ratio is 78% and the upper limit for the LDR ratio is 92%. The higher the Loan to Deposit Ratio (LDR) indicates the riskier the condition of bank liquidity, conversely the lower the LDR ratio indicates the lack of effectiveness of the bank in extending credit so that the bank loses the opportunity to earn profits (Sutrisno & Yudowati, 2020). The formula for calculating liquidity risk can be seen below:

$$LDR = \frac{Total\ Loan}{Total\ Asset}\ X\ 100\%$$

Source: Sutrisno & Yudowati (2020)

5. Operational Risk

According to Lestari & Abdullah (2020), the BOPO ratio is a ratio that measures the efficiency of expenses incurred by banks to generate profits. Sari (2020) said Bank Indonesia stipulates the size of the BOPO ratio does not exceed 90% or a maximum of 90%. The BOPO ratio is a comparison between total operating expenses and total operating income. If a bank's BOPO ratio exceeds 90%, the bank is categorized as inefficient in carrying out its operational activities. The higher the BOPO ratio, the less efficient the bank's operational activities are, so that the opportunity to earn profits is smaller. The higher the BOPO ratio, the lower the bank's profitability. The lower the

BOPO ratio, the more efficient the bank's operational activities are, so that the opportunity to earn profits is greater. The lower the BOPO ratio, the higher the bank's profitability.

$$BOPO = \frac{Operating\ Costs}{Operating\ Income}\ X\ 100\%$$

Source: (Utami & Silaen, 2018)

Hypotheses of the research

The influence of credit risk, liquidity risk and operational risk on profitability

Indonesian Bankers Association (2014: 39), credit risk is the risk resulting from the failure of the debtor and/or other parties to fulfill their obligations to the bank. Liquidity risk is a risk that describes a company's inability to pay off its short-term debt (Anggraeni & Manda, 2022). Operational risk is the risk caused by the lack of functioning of the bank's internal processes, human error, technological system failure, or due to problems external (Utami & Silaen, 2018). As research conducted by (Manda & Eriska, 2021) and (Sante et al., 2021) states that simultaneously credit risk (NPL), liquidity risk (LDR) and operational risk (BOPO) have a significant effect on bank profitability (ROA).

H1: Credit Risk, Liquidity Risk and Operational Risk effect simultaneously on Profitability

Effect of Credit Risk on Profitability

The results of research (Mosey et al., 2018) state that credit risk has a significant negative effect on profitability. This was due to an increase in credit risk which resulted in a decrease in bank profitability. The higher the credit risk, the worse the credit quality, which causes the number of non-performing loans to increase.

The higher the NPL ratio, the greater the credit extended by the bank resulting in lower income which will result in a decrease in the ROA ratio. The higher the NPL ratio, the greater the risk channeled by the bank so that the income is lower so that the profit proxied by the ROA ratio decreases.

H2: It is suspected that credit risk has a partial effect on profitability

Effect of Liquidity Risk on Profitability

According to (Sutrisno & Yudowati, 2020), liquidity risk is risk due to the bank's inability to meet its maturing obligations from cash flow funding sources and/or from usable high-quality liquid assets, without disrupting the bank's activities and financial condition.

The higher the liquidity risk, the higher the bank's profit increases, with the increase in bank profits, so does the bank's performance increase. The higher the value of liquidity risk indicates the lower the liquidity capacity of the bank concerned so that the possibility of a bank in a troubled condition will be greater, conversely the lower the liquidity risk indicates the lack of effectiveness of the bank in extending credit so that the bank loses the opportunity to earn profits.

Based on the results of research conducted by (Desiko, 2020) states that Liquidity risk (LDR) has a significant positive effect on bank financial performance (ROA), this is because the higher the liquidity risk, the better the banking, because if the higher the liquidity risk, the amount of credit given increases. So that interest income and profits from the bank increase.

H3: It is suspected that Liquidity Risk has a partial effect on Profitability

Effect of Operational Risk on Profitability

According to Anggraeni & Manda (2022), operational risk is risks that occur due to the company's internal parties not being optimal in carrying out the management control system. Operational risk is a risk that can be experienced by the entire company, there are various causes of operational risk, such as HR factors, internal procedures, failure of a system, and outside or external factors.

The smaller the operational risk, the more efficient the bank is in carrying out its business activities so that the healthier the bank. The smaller this ratio means the more efficient the operational costs incurred by the bank concerned so that the possibility of a bank in a problematic condition is getting smaller.

Based on research conducted by (Manda & Eriska, 2021), (Anggraeni & Manda, 2022) state that risks operational significant negative effect on profitability (ROA). This is because if operational risk increases, it can mean that the bank is not efficient while managing its operational costs, resulting in a decrease in bank profitability.

H4: Operational Risk has a partial effect on Profitability

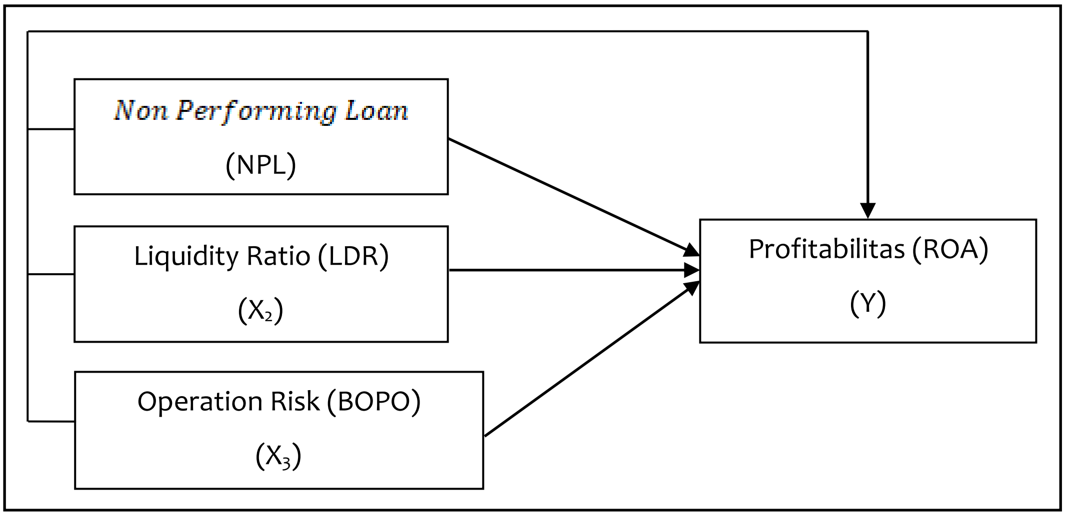

Figure 2. Model Hypothesis
Source: Author (2022)

METHODOLOGY

Type of research

This study uses a type of quantitative research. According to (Sugiyono, 2019: 16), explaining that quantitative method research can be said to be a research method based on the philosophy of positivism, which is used to examine certain populations or samples, data collection uses research instruments, data analysis is quantitative/statistical, with the aim to test the established hypothesis. This research was conducted to find the relationship (influence) between the independent variables (X) including Credit Risk, Liquidity Risk and Operational Risk on the dependent variable, namely Profitability.

Population and Sample

According to Sugiyono (2019: 126), population is a generalization area consisting of: objects/subjects that have certain quantities and characteristics determined by researchers to study and draw conclusions. The population used in this study are conventional banks listed on the Indonesian Stock Exchange. The total population in this study was 43 banks. According to Sugiyono (2019: 127), the sample is part of the number and characteristics possessed by this population. If the population is large, and it is impossible for the researcher to study everything in the population, for example due to limited funds, manpower and time, the researcher can use samples taken from that population. The conclusions will be applicable to the population. For that, samples were taken from population must be truly representative (representing).

According to (Sugiyono, 2019: 128), the sampling technique is a sampling technique, in this study using a non-probability sampling technique. Purposive Sampling Technique, which is a sample determination technique with certain considerations (Sugiyono, 2019:

133). The criteria in this research are conventional banks that are listed on the Indonesian Stock Exchange, have published financial reports and generated profits during the 2019-2021 period.

Table 1. Determination of Samples Based on Criteria

No	Criteria	Out of Criteria	Total
1.	Conventional Banks Listing on the Indonesia Stock Exchange During the 2019-2021 Period.	(3)	40 Bank
2.	Conventional Banks that publish financial reports and Annual Reports for the 2019-2021 Period.	-	40 Bank
3.	Conventional Banks that experience profits every year during the 2019-2021 period.	(13 bank)	27 Bank
4.	Research Year		**3**
5.	Final Sample Amount (27*3)		**81**

Source: Author (2022)

RESULTS

Multiple Linear Regression Test Results

Multiple linear regression analysis has the goal of knowing the effect of the independent variable on the dependent variable. The existence of a regression equation for the three independent variables, namely Credit Risk, Liquidity Risk and Operational Risk on Profitability can be seen in the Table 2.

Table 2. Multiple linear regression analysis

Coefficients[a]					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig.
1 (Constant)	6.305	0.655		9.622	0.000
LAG_Credit Risk	-0.179	0.084	-0.158	-2.137	0.036
LAG_Liquidty Risk	0.076	0.022	0.240	3.391	0.001
LAG_Operation Risk	-0.420	0.047	-0.671	-9.035	0.000

a. Dependent Variable: LAG_Profitabilitas

Source: Author (2022)

Based on the Table 2, the results of the multiple linear regression analysis above, the multiple linear regression equation can be made as follows:

$$ROA = 6{,}305 - 0{,}179\ NPL + 0{,}076\ LDR - 0{,}420\ BOPO + \varepsilon$$

Determination Coefficient Test (R2)

According to Ghozali (2018; 97), the coefficient of determination test is basically used to measure how far the model's ability to explain the variation of the dependent variable. The value of the coefficient of determination is between zero and one. The small value of R2 means that the ability of the independent variables to explain the variation in the dependent variable is very limited. A value close to one means that the independent variables provide almost all the information needed to predict the variation of the dependent variable.

Table 3. Determination Coefficient Test

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,794[a]	,631	,616	,85134

a. Predictors: (Constant), LAG_Operation Risk, LAG_Liquidity Risk, LAG_Credit Risk

Source: Author (2022)

Based on the Table 3, it can be seen that from the calculation of the coefficient of determination above, the R Square value obtained is 0.631 or (63.1%). This means that the value of the independent variables Credit Risk, Liquidity Risk and Operational Risk are affected by Profitability by 63.1%, while the remaining 37.9% is influenced by variables outside the regression equation or variables not examined.

DISCUSSION

Effect of Credit Risk, Liquidity Risk and Operational Risk on Profitability

Based on the results of this study, empirical evidence was obtained that credit risk, liquidity risk and operational risk have a significant influence on profitability simultaneously. Thus to test the first hypothesis (H1) which states that Credit Risk, Liquidity Risk and Operational Risk jointly/simultaneously have a significant effect on profitability is said to be accepted. Based on the test results that credit risk, liquidity risk and operational risk have shown that there is an equation that can lead to profitability (Utami & Silaen, 2018).

The similarities between these three variables will make profitability increase and decrease, so what the bank has to do is maintain the efficiency level of the three risks. Risk that is managed properly will have a positive impact on the sustainability of bank operations, but if the bank does not manage risk properly it will have a negative impact on the bank, namely experiencing bankruptcy. It can also be said that risk is a bank opportunity which, if managed properly, will generate large profits. Therefore, if these variables experience an increase, it will affect bank profitability.

Effect of Credit Risk on Profitability

Based on the results of this study, empirical evidence was obtained that credit risk partially has a negative effect on profitability, so the second hypothesis (H2) is accepted. This means that the higher the NPL ratio, the higher the amount of credit disbursed by the bank which can cause higher non-performing loans, so that the lower the profit earned will cause the profitability received by the bank to decrease and the bank must also be able to bear losses in its operational activities. bank. This research can support Mosey et al. (2018) research which shows that credit risk has a negative and significant effect on profitability.

Effect of Liquidity Risk on Profitability

Based on the results of this study, empirical evidence was obtained that liquidity risk partially has a positive effect on profitability, so the third hypothesis (H3) is accepted. This means that the higher the liquidity risk, the bank's profit will increase, with the increase in bank profits, it can be said that the bank's performance will also increase. And the higher the value of liquidity risk indicates the lower the ability of the bank's liquidity so that the possibility of a bank in a troubled condition will be even greater. This research can support Desiko (2020) which shows that liquidity risk has a positive and significant effect on profitability.

Effect of Operational Risk on Profitability

Based on the results of the study, empirical evidence was obtained that operational risk partially has a significant negative effect on profitability, so the fourth hypothesis (H4) is accepted. This means that the increasing bank operational risk will result in a decrease in bank efficiency resulting in a decrease in the profitability of the bank itself. This is because if the bank is not able to make operational costs efficient and the income earned also tends to be small it will cause decreased profitability. A high operational risk value means that the bank cannot manage its operational activities which are said to tend to be unfavorable, so that as a result of that the bank's profitability will definitely not be achieved. This research can support Anggraeni & Manda (2022) which shows that operational risk has a negative and significant effect on profitability.

Implications

The findings in this study can be used as additional information for policy or decision makers. Stake holders can take preventive actions to minimize losses if they have known the risks beforehand. As well as being able to maximize profits that have been targeted according to the level of risk.

In this study the risks discussed are credit risk, liquidity risk, and operational risk. These three ratios can represent how the company manages its business in order to maximize profits. Banking can anticipate credit which is the main business. As well as liquidity, where the turnover of financial assets is known to be very high, so there are preventive efforts to protect customer funds. Likewise operational activities that play a role in achieving company goals in maximizing profits while also remaining efficient. If the existing risks are successfully controlled then the expected profitability can be achieved.

CONCLUSION

(1). Credit Risk, Liquidity Risk and Operational Risk simultaneously have an influence on Profitability at Conventional Banks for the 2019-2021 Period, (2). Credit Risk has a negative effect on Profitability at Conventional Banks for the 2019-2021 period, (3). Liquidity Risk has a positive influence on Profitability in Conventional Banks for the 2019-2021 Period, (4). Operational Risk has a negative effect on Profitability at Conventional Banks for the 2019-2021 period.

Limitations

This research still has some limitations in research can be stated as : (1). Retrieval of research data experiences problems because not all conventional commercial banks publish the 2021 Annual Report in a timely manner, so it takes time to manage the data. (2). The number of samples used in the study only consisted of 27 conventional banks, because there were several commercial banks conventional banks that were delisted during the study period and there were conventional commercial banks that experienced losses thereby reducing the research sample.

Recommendations

Based on the results of the research that has been done, the researcher can submit suggestions to subsequent research that can add independent variables besides Credit Risk, Liquidity Risk and Operational Risk related to factors that can affect bank profitability. This becomes a consideration of which risks have a major influence on profitability. And for banks to pay more attention to the profitability of the bank and also pay attention to the risks that occur in the banking sector because this can be taken into consideration before conducting a performance appraisal.

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