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THE IMPACT OF MARKET RISK AND CREDIT RISK ON THE PROFITABILITY OF ISLAMIC BANK: A CASE STUDY ON PANIN DUBAI SYARIAH 2014 TO 2021

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ABSTRACT

Market risk and credit risk play a central role in destabilizing company stability. Market risk manifests when the value of investments declines due to a decrease in market value, while credit risk arises when funds allocated by the bank to customers are not repaid according to the loan agreement. This study aims to explore the impact of market risk and credit risk on financial performance, applying an Associative-based Quantitative Method. The data used are quarterly secondary data from Bank Panin Dubai Syariah from 2014 to 2021. The sampling technique used is saturation sampling, given the relatively small population, with a total sample of 32. The analytical tests involve Descriptive Statistical Analysis, Classical Assumption Tests, Multiple Regression Analysis, T-Test, F-Test, and Determination Coefficients. The research findings show that, partially, Market Risk (NOM) has a significant influence on Financial Performance (ROA), while Credit Risk (NPF) does not have a significant impact on Financial Performance (ROA). However, simultaneously, both Market Risk (NOM) and Credit Risk (NPF) significantly influence Financial Performance (ROA)

Keywords: Credit Risk; Market Risk; Profitability.

INTRODUCTION

The banking industry requires performance improvement to establish a healthy and efficient banking system, including the health level. The health level of a bank is an assessment of the financial reports of the bank over a specific period to identify conditions or situations in accordance with Bank Indonesia standards (HE Zulaecha 2020). The health of a bank is the result of a qualitative assessment of various aspects that influence its health or performance through an evaluation of capitalization factors, asset quality, management, profitability, liquidity, and sensitivity to market risk factors (Dendawijaya 2009). These aspects are evaluated using financial ratios to assess the financial condition of banking companies.

Achieving liquidity and health in a banking industry can be measured using the Return on Asset (ROA) ratio. As stated in Bank Indonesia Circular Letter No. 3/30DPNP dated December 14, 2001, the ROA ratio can be measured by comparing pre-tax profits with total assets (Winny Herdinigtyas and Luciana Spica Almilia 2005). The higher the ROA value in a bank, the higher the level of bank profitability, indicating that the bank is considered good in utilizing and managing assets (Rohimah 2021).

The Return on Assets (ROA) indicates a low ability of the bank to utilize assets and does not offer a high return, discouraging the pursuit of high profits. Additionally, a decrease in the ROA value will influence the policies of investors in saving and withdrawing funds from what the investment undertakes, disrupting banking activities and causing a reduction in income and profitability (Anggrayni, Tabe, and Azzochrah 2022). According to (Latief 2022), a decrease in profitability means that the bank's earnings and ability to manage funds from assets are not optimal. The existence and crucial role of banking institutions for the economic stability of a country need to be addressed. This is important because the banking

industry heavily relies on public trust in its operations, which must be maintained at a healthy level. The maintenance of bank health is carried out to address the emergence of banking risks (Hamdani et al. 2018)

One of the factors that can influence profitability is market risk. Market risk is a condition faced by companies that causes changes in the conditions and situations in the external market and the company's control. There are several factors that affect market risk, including interest rates, stock prices, exchange rates, and commodity prices (Desda and Yurasti 2019). This indicator reflects the result of summing net interest income generated by using the investment income of the bank (Pattiruhu 2020). As stated in Bank Indonesia Circular Letter No. 13/1/PBI/2011 on the assessment of market risk as a risk inherent in the balance sheet and management accounts containing derivative transactions due to changes in market conditions and the risk of price fluctuations (Sidik and Manda 2021). Market risk is also evident in the large Net Operating Margin (NOM) ratio in Islamic banking. This ratio is used to measure the bank's management's ability to manage its productive assets to generate income through profit sharing. The higher the market ratio (NOM), the less likely the bank is to experience problems. This is because with the increasing profit sharing on the productive assets managed by the bank, financial performance also improves (Tristiningtyas et al. 2013).

The signal theory articulated by Spence (1973) suggests that information provided positively to external parties regarding financial ratio reports, such as ROA or the return rate on assets or the amount of profit obtained from the assets used. If the ROA value is high, indicating good financial performance of the company, investors will be interested in investing their funds in the company (Gumelar & Rahmawati, 2019)

Alongside market risk, credit risk is another factor that affects profitability (Korompis Ria Revianty Nevada, Sri, and Untu Victoria N. 2020). Credit risk is one risk in banking, wherein the risk occurs if the funds channeled by the bank to customers are not repaid according to the terms of the previous loan agreement (Yushita, 2020; (Abdullah and Siswanti 2019). Credit risk arises from the failure or inability of customers to repay the loans and interest received from the bank within the specified period. Credit risk in Islamic banks can be observed through the size of the Non-Performing Financing (NPF) ratio. The NPF ratio is used to measure the risk of funding failure, namely the ratio of problematic funding (classified as less liquid or non-performing funding) to the total funding disbursed. This ratio also serves to assess the bank's ability to bear the risks it faces. If this risk is low, the risk borne by the bank will be smaller. Conversely, if credit risk is higher, the bank will face greater risks, impacting the bank's profit level. Bank Indonesia (BI) has set regulations that the minimum value of NPF (Non-Performing Financing) is 5% as the tolerance level for the bank's health.

METHODS

This research employs a quantitative research method, utilizing concrete secondary data. The research data consists of numerical values that will be statistically measured or analyzed as a tool for calculation, relating to the investigated problem to draw conclusions. Quantitative research adopts an associative approach, focusing on examining relationships between variables.

The population of this study comprises all financial reports of Dubai Islamic banks, while the sample is limited to the last 8 years, from 2014 to 2021. Data is collected through financial reports downloaded from the Financial Services Authority (OJK) website, focusing on ratio data to measure profitability, market

risk, and credit ratios. Data analysis involves multiple regression tests using Statistical Product and Service Solutions (SPSS) version 25.

RESULTS AND DISCUSSION

Descriptive Statistical Analysis Test

This research conducts testing on the influence of market risk with the NOM ratio and credit risk with the NPF ratio as independent variables on profitability, proxied by the ROA ratio as the dependent variable. The processed data includes Market Risk Ratio (NIM), Credit Risk Ratio (NPF), and Profitability Ratio (ROA) from the quarterly financial reports of PT. Bank Panin Dubai Islamic for the period 2014-2021

Table 1.
Research Data

No.	Period	NPF	NOM	ROA
1	Q1-2014	0,94	4,10	1,45
2	Q2-2014	0,57	5,50	1,64
3	Q3-2014	0,43	5,59	1,82
4	Q4-2014	0,29	5,88	1,99
5	Q1-2015	1,94	0,86	1,14
6	Q2-2015	0.56	0,81	1,22
7	Q3-2015	1,24	0,78	1,13
8	Q4-2015	1,94	0,86	1,12
9	Q1-2016	1,69	0,02	0,20
10	Q2-2016	1,96	0,15	0,36
11	Q3-2016	1,84	0,14	0,42
12	Q4-2016	1,86	0,05	0,37
13	Q1-2017	2,01	0,50	0,80
14	Q2-2017	3,41	0,10	0,45
15	Q3-2017	3,98	0,00	0,29
16	Q4-2017	4,83	11,57	10,77
17	Q1-2018	2,84	0,18	0,26
18	Q2-2018	2,88	0,17	0,26
19	Q3-2018	2,89	0,65	0,25
20	Q4-2018	3,84	0,05	0,26
21	Q1-2019	3,97	0,24	0,24
22	Q2-2019	3,41	0,12	0,15
23	Q3-2019	3,14	0,13	0,16
24	Q4-2019	2,80	0,22	0,25

25	Q1-2020	2,90	0,24	0,26
26	Q2-2020	2,59	0,01	0,04
27	Q3-2020	2,62	0,02	0,00
28	Q4-2020	2,45	0,05	0,06
29	Q1-2021	3,53	0,10	0,10
30	Q2-2021	3,24	0,05	0,05
31	Q3-2021	3,16	0,04	0,04
32	Q4-2021	0,94	7,37	6,72

Source: processed data 2023

The descriptive table of statistical test results shows the minimum, maximum, and mean calculations for each variable. Starting with the independent variable, Market Risk (NOM) has a minimum value of 0.00 and a maximum value of 11.57, with a mean (average) value of 1.4547. Then, the Credit Risk (NPF) variable has a minimum value of 0.29, a maximum value of 56.00, and a mean value of 4.1291. Moving on to the dependent variable, profitability (ROA) has a minimum value of 0.00, a maximum value of 10.77, and a mean value of 1.0709.

Normality Test

The Normality Test using the Non-Parametric Kolmogorov-Smirnov method in linear regression after natural logarithm data transformation is explained in the following table:

Table 2.
Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
		31
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	2,02972768
Most Extreme Differences	Absolute	,102
	Positive	,087
	Negative	-,102
Test Statistic		,102
Asymp. Sig. (2-tailed)		,200[c,d]

Source: Processed Data 2023

The results of the normality test using the Non-Parametric Kolmogorov-Smirnov method show an Asymp. Sig. (2-tailed) value of 0.200 > 0.05. This leads to the conclusion that the normality assumption in the regression model has been fulfilled..

Heteroscedasticity Test

The Heteroskedasticity Test using the Glejser analysis is employed to ensure the absence of heteroskedasticity symptoms.

Table 3.
Heteroscedasticity Test

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std.E		VIF	
(Constant)	,671	,125	,000		,000
Risiko Pasar (NIM)	-,035	,037	,350	1,005	,350
Risiko Kredit (NPF)	-,008	,011	,462	1,005	,462

Source: Processed Data 2023

The table above for both variables show significance values between the independent variable and the absolute residual greater than 0.05. This implies that there is no evidence of heteroscedasticity.

Multicollinearity Test

The multicollinearity test is based on Tolerance and VIF values, with the condition that the tolerance value should be greater than 0.10 and the VIF value should be less than 10.00.

Table 4.
Multicollinearity Test

Model	Unstandardized Coefficients		Collinearity Statistics	
	B	Std.E	Tolerance	VIF
(Constant)	-,029	,209		
Risiko Pasar (NIM)	,705	,062	,995	1,005
Risiko Kredit (NPF)	,018	,018	,995	1,005

Source: Processed Data 2023

The table above for the NOM and NPF variables shows a tolerance value of 0.995 > 0.100 and a VIF value of 1.005 < 10.00. This indicates that both variables do not exhibit multicollinearity symptoms.

Autocorrelation Test

This test employs the Lag data transformation with variables or residual values found in the Durbin-Watson Test, meaning it creates a new variable that is the result of subtracting the value from the i-th sample by the i-th - 1. Below are the results of the linear regression from the lag data transformation:

Table 5.
Autocorrelation Test

R	R Square	*Adjusted R Square*	Std. Error of the Estimate	Durbin-Watson
,523[a]	,273	*,248*	,78367501	2,172

Source: Processed Data 2023

The data table above indicates that the value of dU is smaller than the DW value, and the DW value is smaller than 4 - dU, in other words, (dU (1.5736) < DW (2.172) < 4 - dU (2.4264)) . After reviewing the explanation or breakdown above, it can be concluded that in the regression model, the autocorrelation test is considered to have passed, and there is no autocorrelation.

Hypothesis Test
Partial Significant Test (t test)

The t-test is used to measure the partial influence of market risk (NOP) and credit risk (NPF) variables on the profitability variable (ROA). The results of the hypothesis testing for each variable are as follows:

Table 6.
Market Risk t Statistical Test (NOM)

Coefficients[a]				
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B Std. Error	Beta		

(Constant)	,052	,192		,273	,787
NOM	,700	,062	,899	11,257	,000

a. Dependent Variable: ROA

Source: Processed Data 2023

Based on Table 6, it can be observed that the calculated t-value is 11.257, while the tabulated t-value is 2.045. Therefore, the calculated t-value of 11.257 is less than the tabulated t-value of 2.045. Meanwhile, the significance value is 0.000, which is smaller than 0.05 (0.000 < 0.05). This indicates that Market Risk (NOM) has a significant influence on Profitability (ROA)

Table 7.
Credit Risk t Statistical Test (NPF)

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	,058	,423		2,502	,018
NPF	,003	,041	,014	,077	,939

a. Dependent Variable: ROA

Source: processed data 2023

Based on Table 7, it can be observed that the calculated t-value is 0.077, while the tabulated t-value is 2.045. Therefore, the calculated t-value of 0.077 is less than the tabulated t-value of 2.045. Meanwhile, the significance value is 0.939, which is greater than 0.05 (0.939 > 0.05). This implies that Credit Risk (NPF) does not significantly influence Profitability (ROA).

The Effect of Market Risk (NOM) on Profitability (ROA)

Hypothesis 1 aims to determine the influence of market risk on profitability, as expected in the research. The research results show that market risk has an impact on profitability, meaning that when market risk decreases, profitability also decreases. This is because one cause of market risk is the decrease in the value of investments. Conversely, when the value of investments is high, the company's

ability to earn profits also increases. The indicator for measuring market risk is the Net Operating Margin (NOM). The higher the NOM, the higher the value of investments, as it enhances the interest of capital owners to develop productive sectors. The increased productive sectors can trigger company profitability, in line with signaling theory, suggesting that a company with a high NOM can encourage investors to invest in it. The research results align with Laila Nur Azizah's study, which found that NOM influences profitability (ROA).

The Effect of Credit Risk (NPF) on Profitability (ROA)

Hypothesis 2 aims to determine the influence of credit risk on profitability. The research results indicate that credit risk does not affect profitability. This means that if credit risk fluctuates or varies, profitability does not change. This occurs because banks have credit insurance that can address installment payment failures. Banks also have collateral for credit that can be managed to address problematic loans. Banks consistently allocate a portion of their profits to anticipate future installment payment failures, ensuring the continuous preservation of the company's profitability. This is supported by (Sukma, Saerang, and Tulung 2019), which concludes that credit risk does not affect profitability. Signaling theory plays a role because companies with high market risk are always accompanied by the strength of allocating funds from profits to deal with credit installment defaults.

The Influence of Market Risk and Credit Risk on Profitability

Hypothesis 3 aims to determine the simultaneous influence of market risk and credit risk on profitability. The research results indicate that market risk and credit risk affect profitability. This means that if market risk and credit risk decrease simultaneously, profitability also decreases, and vice versa. This is supported by the study by (Sidik and Manda 2021), stating that market risk and credit risk have a simultaneous influence on profitability. It aligns with signaling theory, suggesting

that when market risk and credit risk increase, the chances of obtaining profit also increase as it can attract external parties to invest their capital.

CONCLUSION

Based on the research findings, the conclusions can be summarized as follows:

1) risk significantly influences profitability. When market risk decreases, profitability also decreases, as one cause of market risk is the decrease in the value of investments. Conversely, when the value of investments is high, the company's ability to earn profits also increases.
2) Credit risk does not have a significant influence on profitability. The fluctuations in credit risk, whether increasing or decreasing, do not result in changes in profitability.
3) Market risk and credit risk collectively influence profitability.

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