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THE IMPACT OF LIQUIDITY RISK AND CREDIT RISK ON PROFITABILITY WITH NET INTEREST MARGIN AS AN INTERVENING VARIABLE

Louis Yosen Primsa Tarigan[1], Tannia Tandeas[2]

Faculty of Economics and Business, Universitas Pelita Harapan

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ABSTRACT

Banks are distinctively disparate from the other business entities for their business nature and essential functions; in serving as a financial intermediary, relying on the community as their main source of funding, assisting government in regard to the monetary policy implementation, and stimulating the economy. This study aims on identifying the influence of Liquidity Risk (LDR) and Credit Risk (NPL) on Profitability (ROA) with Net Interest Margin (NIM) in its mediating role of the Conventional Commercial Banks listed on the Indonesia Stock Exchange (IDX) for the period of 2020 to 2022. The population comprises those listed on the IDX under the Banking sub-sector companies, out of which, 4 banks are selected through the purposive sampling approaches. A total of 32 samples are obtained on an interim basis, from the second quarter of 2020 to the first quarter of 2022. By using the SPSS 25 program, Path Analysis is performed. It is revealed that Liquidity Risk has an insignificant effect on each NIM and Profitability, while Credit Risk has a significant effect on each NIM and Profitability. The results indicate that a one-unit change in Liquidity Risk might cause an insignificant fluctuation in NIM and Profitability and a one-unit change in Credit Risk might lead to a significant fluctuation in NIM and Profitability. Moreover, NIM fails to intervene between the effect of Liquidity Risk on Profitability and is found to intervene only between the effect of Credit Risk on Profitability.

E-mail:
primsa.tarigan@uph.edu

1. INTRODUCTION

1.1. Background

The data of Otoritas Jasa Keuangan [OJK] (2021) revealed that banks has distributed thousands of trillion Rupiah of funding to support the Micro, Small, and Medium-sized Enterprises by the end of December 2021, whose contribution was at 60.5% to the total GDP of Indonesia, as of 2019 (KEMENKOPUKM, 2019). Moreover, as of December 2021, the credit channeled by commercial banks were mostly to Household (24.00%) and to the business sector of Wholesale and Retail Trade (16,89%), Manufacturing (16.49%), Agriculture and Forestry (7.20%), Construction (6.59%), etc. (OJK, 2021), in which based on the report of Badan Pusat Statistik (2021), those four business sectors were the main contributor to the Gross Domestic Product of Indonesia for the last few years.

Despite its influential role in stimulating the economic growth, banks are vulnerable to uncertainties that led to several major risks. The CNBC Indonesia (2018) stated that high competition happened within Indonesia's banking sector in 1998, by which the huge credit was flowed poorly and has resulted in significant exposure to credit risk as the consequences of the insufficient and ineffective supervision. The weakening Indonesia Rupiah exchange rate and the rising interest rate as the proof of the uncertainty boost the level of Indonesia's commercial banks' Non-Performing Loan to 58.7% within the year 1998 – 1999 based on the data of Bank Indonesia (in Abubakar et al., 2018). This problem was worsened by a sudden

massive deposits withdrawal which exacerbated the liquidity of the bank. The crisis experienced has brought out the issue of both liquidity and credit risks to be an important concern of the nation, particularly during the recent pandemic of Covid-19. According to the annual banking surveys conducted by the PricewaterhouseCoopers (PwC) since 2010, liquidity risk and credit risk has also been consistently listed amongst the three most concerned and anticipated risks faced by banks in Indonesia.

One of the suitable indicators of bank's performance is profitability (Yuanita, 2019), as being a business entity, which is in pursuit of maximum profit, profitability is predominantly an essential assessment for banks. Banks with high profitability are perceived to develop towards a more sustainable future and those risks might be the threats to it as they affect banks' earning capabilities. Reaching the total number of 95 banks throughout Indonesia by the end of 2021, conventional commercial banks are having the strongest position amongst others in the industry for their competitiveness and intermediaries' capability. With a better-known interest-based system, conventional commercial banks' profitability is highly influenced by their productive assets management to generate net interest income assessed by the level of Net Interest Margin (NIM).

Table 1. Indonesia's Conventional Commercial Banks Indicators

Code	Year	LDR	NPL	NIM	ROA
Conventional Commercial Banks in Indonesia	2017	90.04%	2.50%	5.32%	2.45%
	2018	94.78%	2.33%	5.14%	2.55%
	2019	94.43%	2.50%	4.91%	2.47%
	2020	82.54%	3.06%	4.45%	1.59%
	2021	77.49%	3.02%	4.63%	1.85%

Source: OJK

The Profitability, represented by the ratio of Return on Asset (ROA) of the conventional commercial banks fell simultaneously with the decreasing NIM in 2019 and 2020, following the drop in Liquidity Risk, represented by the Loan-to-Deposit Ratio (LDR), to 94.43% and 82.54% in 2019 and 2020, respectively, as well as the raising Credit Risk, represented by the Non-Performing Loan ratio (NPL) of the same year to 2.50% and 3.06%. This phenomenon goes along with the study of Setiawan et al. (2019) who concluded that Liquidity Risk and Credit Risk has a significant positive influence and negative influence, respectively, on banks' NIM and the study of Puspitasari et al. (2021) who found that NIM has a significant positive influence on banks' ROA.

In contrast, during 2018, despite the fact that there was a rise in LDR and a decline in NPL, banks still demonstrated a lower NIM, vice versa. It also can be analyzed that the increasing ROA in 2018 had the study of Setiawan et al. (2019) denied for the decreasing NIM of the same year analyzed. Meanwhile, the changes in the LDR or NPL in 2018 has the ROA of the year increased, empirically supporting the previous findings of Sari & Sulistyo (2018) who showed that LDR significantly and positively affects bank's ROA as well as Riyanto & Surjandari (2018) who showed that NPL has a significant inverse effect on the similar variable. It is, however, against Puspitasari et al. (2021)'s research for showing that LDR has a significant negative impact on ROA, as demonstrated in 2021. Numbers of related research have also been done on this concern with inconsistent findings, thus, will be further analysed in this study.

1.2. Literature Study

The Uncertainty-Bearing Theory underlies the development of this research. Knight (1921) stated that profit emerges under inherently unpredictable circumstances for the fact that the outcomes of the human activity are unforeseen. Knightian theory implies that the uncertainty in business is referred as the uninsurable risks whose likelihood can hardly be determined for the limitation in the awareness regarding the current facts or futures possibilities and profit is the reward expected by entrepreneurs for functioning under this uncertainty. Shackle (1961) distinguished the profit itself in three types, each arising from the hypotheses regarded as (a) perfectly possible and (b) less than perfectly possible but not impossible, which may be rewarded for the decision makers' knowledge and skills in anticipating the future, as well as (c) impossible, which is as the result of a pure luck and favorable circumstances. Relevant to this research, banks and their managements are seen as entrepreneurs with the necessity to act in the condition of an unpredictable economy. The outcomes might possibly deviate from the hypotheses developed, in which banks might end up either reaping profits, for being supported by advantageous circumstances, or bearing losses, as the process of expecting a return poses uninsured risks to banks.

Positioning themselves between two parties, namely savers and borrowers, banks serve as a financial intermediary, a third party who acts as a link between two parties (Greenlaw & Shapiro, 2017). In Indonesia, as stated in Act of the Republic of Indonesia No. 10 of 1998 concerning Banking, banks are categorized into two types, which are Commercial Banks, whose activities are carried out conventionally or in accordance with the Sharia principles and in their activities facilitate payment flow services, and Bank Perkreditan Rakyat, whose activities are carried out conventionally or in accordance with the Sharia principles and in the absence of facilitating the payment flow services. In Indonesia, Conventional Commercial Banks are being well-known for the interest-based system applied, with better accessibility, more comprehensive and convenient facilities, and efficacy capabilities in performing the intermediary function.

By implementing the interest-based system, conventional commercial banks gain mainly through their function as loans distributors, as borrowers who receive funds from banks will later repay them with interest and in fact that bank is obliged to pay out interest to savers whose funds are used to support banks in operating its business, a higher loan interest rate compared to the savings interest rate which is lower will be set. The differences or the margin of the interest rate paid to funds providers and received from creditors is realized as bank's income, known as the term spread-based income (Ningsih, 2021).

As stated in the Regulation of OJK No. 18/POJK.03/2016 concerning the Implementation of Risk Management for Commercial Banks, conventional commercial banks are exposed to the following risk, including Credit Risk, Market Risk, Liquidity Risk, Operational Risk, Legal Risk, Reputation Risk, Strategic Risk, and Compliance Risk.Of the eight risks, liquidity risk and credit risk are listed amongst the three most significant risks whose impacts are mainly concerned and anticipated by banks in Indonesia, consistently shown in the annual banking surveys by PwC since first conducted in 2010.

Liquidity Risk arises when there is an absence of sufficient liquidity to cover banks' matured short-term obligations and any possible unanticipated funds outflow. A liability is recognized in a banks' balance sheet when fund providers deposit cash, meanwhile, an asset is recognized when loans are granted to borrowers. When banks fail to effectively manage their asset and liability, banks might as well fail in maintaining their liquidity which is the ability of being responsive to any additional make to and withdraw from those accounts, as well as to meet any other financial requirement (Huong et al., 2021) which leads to the exposure of liquidity risk. To maximize profit, banks will maximize their loans allocation and risk a higher degree of their liquidity. Instead, when banks maintained a higher liquidity, the higher the unproductivity of those liquids and the lower the profit will be.

Most banks have more than 50% of each their assets and liabilities be composed of loans issued and TPF accepted, respectively. Their domination points out that these assets and liabilities management in term of loans and TPF might be the key factor influencing banks' liquidity. Also, along with the statement of the Circular Letter of OJK No. 34/SEOJK.03/2016 concerning the Implementation of Risk Management for Commercial Banks, wherein the liquidity risk measures utilized must be capable of quantifying the liquidity risk including those arising from the assets and liabilities, out of many ways to measure the degree of a bank's liquidity, LDR is preferred. LDR is used

as it may reflect the risk possibly arising from both sides of the balance sheet, which are the risk of loss or delay in the cash inflow from debtors' repayment of loans (assets) and the risk of unforeseen fund withdrawals (liabilities) that might create issues in banks' liquidity.

Being the term credit represents a sum of money that is promised to be paid at a subsequent time in the future, in exchange for earlier benefits received, such as loans received or goods and services acquired, credit risk can be clearly interpreted as the risk that exists due to the possibility that the payment of those expected sum of money might not be made (Coyle, 2000). In compliance with the Circular Letter of OJK No. 34/SEOJK.03/2016 concerning the Implementation of Risk Management for Commercial Banks, credit risk can arise from various financial instruments, such as securities and interbank transactions, but in most banks, their activity in loans channeling is the predominant cause of credit risk, as banks' lending activities might have them vulnerable to the risk of deterioration in loans quality which is one of the major contributors to the rise in credit risk and due to the continuing growth and expansion in these lending activities, NPL is considered as a proper credit risk measurement. The higher the NPL, the more banks are exposed to the risk.

The net interest income or so-called the differences between banks' interest earned and paid, without considering any fee-based income or expense, expressed as a percentage of the interest-bearing assets, is known as the term Net Interest Margin (Brock & Suarez, 2000). The high level of a bank's NIM may disclose its ability to function at greater interest rates than its interest expenses, specifically in its activity of deposit-taking and loan-making (Angori et al., 2019), in which this certain level of efficiency can be accomplished by pursuing the appropriate strategies and approaches.

Profitability refers to a company's ability in generating profit. As a profit-oriented business entity, the assessment of entities' level of profitability is becoming a critical concern for banks. According to the Circular Letter of OJK No. 14/SEOJK.03/2017 concerning the Assessment of Commercial Banks Soundness Level, profitability is an important representation of banks' health. Highly profitable banks exhibit great fundamentals, which signaled a good indication of banks' health (Haryanto et al., 2021). As profitability is influenced by the fluctuations in incomes and expenses, banks will focus on income-maximization and cost-minimization to maintain their profitability at the maximum degree by the utilization of banks' available resources, including by optimizing loans channeling ability and maintaining a good credit quality. For banks' main source of income is significantly contributed by loans channeling activity, in which these loans are recorded as banks' asset, ROA, which demonstrated the efficacy of a bank in managing each level of its assets to generate profit, is chosen as the measurement of profitability.

2. METHOD

2.1. Type and Data Source

In this study, a quantitative research approach is applied, and its completion is supported by using the secondary data. The data of the involved ratio which has been acquired and compiled from the financial reports published quarterly for the years 2020 to 2022 by the companies in the banking sub-sector will be used. These financial reports will be obtained from several sources, including the official website of the Indonesia Stock Exchange (www.idx.co.id), the official website of Otoritas Jasa Keuangan (www.ojk.go.id), and companies' official website. Moreover, by applying the documentation data collection method, the information carried in the financial reports, as well as other journals, literature, articles, books, annual reports, etc. relevant to the topic discussed in this research will be piled up and studied.

The sample will be selected out of the population by implementing the purposive sampling method, with the criteria as follows:

1. Companies listed on the IDX under the Banking sub-sector which operate conventionally as commercial banks.
2. Conventional commercial banks listed on the IDX for the period of 2020 to 2022. Banks which were listed after the 1st of January 2020 will be excluded.

3. Conventional commercial banks listed on the IDX for the period of 2020 to 2022 which are within the classification of the banks owned by the state government/state-owned conventional commercial banks.
4. State-owned conventional commercial banks listed on the IDX for the period of 2020 to 2022 which published complete interim financial reports, starting from the second quarter of 2020 to the first quarter of 2022.

2.2. Analysis Method

Research model is designed as below:

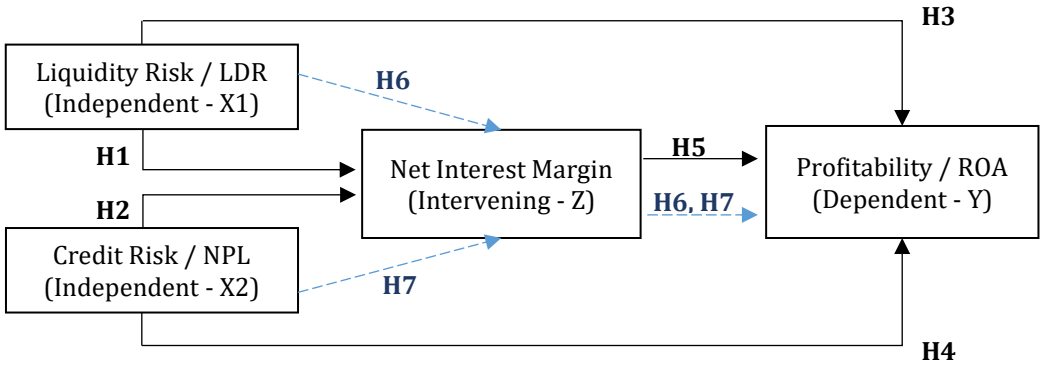

Figure 1. Research Model
Source: Prepared by Writer (2022)

Based on Figure 1 above, the hypothesis for the research are developed as below:
H1: Liquidity Risk has a significant influence on NIM
H2: Credit Risk has a significant influence on NIM
H3: Liquidity Risk has a significant influence on Profitability
H4: Credit Risk has a significant influence on Profitability
H5: NIM has a significant influence on Profitability
H6: NIM intervenes between the influence of Liquidity Risk on Profitability
H7: NIM intervenes between the influence of Credit Risk on Profitability

The data will be processed by using the SPSS 25, undergoing several steps of analysis and tests, namely Descriptive Statistics, Classical Assumption Test and Hypothesis Testing through Path Analysis to meet the research objectives. Path Analysis involves the following two regression equation models:

$$Z = a1 + B1\ X1 + B2\ X2 \quad (1)$$
$$Y = a2 + B3X1 + B4X2 + B5\ Z \quad (2)$$

Description:
(1) : The first regression model for X1 and X2 towards Z
(2) : The second regression model for X1, X2, and Z towards Y

In line with the OJK Circular Letter No. 43/SEOJK.03/2016 and No. 9/SEOJK.03/2020 concerning Reports Transparency and Publication of Conventional Commercial Banks, the measurement of each variable is formulated as follows:

Table 2. Measurement of Research Variables

Variables		Measurement	Scale
X1	Liquidity Risk	$\text{LDR} = \frac{\text{Loans}}{\text{Third-Party Funds}} \text{ x } 100\%$	Ratio
X2	Credit Risk	$\text{NPL} = \frac{\text{Non-Performing Loans}}{\text{Total Loans}} \text{ x } 100\%$ Non-Performing Loans: comprised of credits categorized as sub-standard, doubtful, and loss	Ratio
Z	Net Interest Margin	$\text{NIM} = \frac{\text{Net Interest Income}}{\text{Average Interest-Earning Assets}} \text{ x } 100\%$ Interest-Earning Assets: include banks' productive assets in the form of funds placement, derivative receivables, securities, acceptance receivables, credits, equity investment, temporary equity investment, off-balance sheet, and other forms equated with them. (Regulation of OJK No. 40/POJK.03/2019 concerning Commercial Banks' Asset Quality Assessment), which generate interest income.	Ratio
Y	Profitability	$\text{ROA} = \frac{\text{Annualized Earnings Before Tax (EBT)}}{\text{Average Total Assets}} \text{ x } 100\%$	Ratio

Source: Prepared by Writer (2022)

3. RESULT AND DISCUSSION

3.1. Descriptive Statistics

Liquidity Risk, measured in LDR, is shown to have 5.94% as the standard deviation and a mean of 87.02%, indicating in average, 87.02% of each TPF collected will be distributed as loans, or 0.8702 of loans are channeled for each 1 unit of banks' TPF collected. The highest LDR is on Bank Tabungan Negara (BTN) in the second quarter of 2020 at 111.27%, while the lowest LDR is on Bank Negara Indonesia (BNI) in the fourth quarter of 2021 which is at 79.71%.

Credit risk, measured in NPL ratio, shows a standard deviation of 0.53% and a mean of 3.54% as the average value of the data, indicating that in average, non-performing loans are at 3.54% of the total loans, or there is 0.0354 of non-performing loans for 1 unit of loans channeled. Amongst the samples, the highest NPL, which is 4.71%, as shown in the second quarter of 2020, held by BTN, and the lowest NPL, which is 2.38%, as shown in the first quarter of 2020, held by BNI.

The data has a standard deviation of 1.17%, with an average value of 4.80%, indicating that averagely, 1 unit of banks' productive assets will generate 0.0480 of net interest income. NIM is at the highest in the second quarter of 2021 held by Bank Rakyat Indonesia (BRI) at 7.02%, and at the lowest in the last quarter of 2020 held by BTN at 3.06%.

Profitability, measured in ROA, shows 0.84% as the data's standard deviations, and 1.76% as the data's average value, indicating in average, 1 unit of banks' assets will generate 0.0176 of return, with 3.56% as the maximum value held by BRI in the first quarter of 2022 and 0.54% as the minimum value held by BNI in the fourth quarter of 2020.

3.2. Classical Assumption Test

The normality test on the square-root-transformed data has resulted in a significant value of 0.086 for the first regression model and 0.200 for the second regression model. Both are > 0.05, which has met the criteria of a normal distribution and proven to be failed in rejecting the null hypothesis.

The output of the heteroscedasticity test by using the Glejser Test done on the first regression model shows a significant value of each LDR and NPL as the independent variables at 0.992 and 0.163, respectively. On the second regression model with ROA as the dependent variable, the significant level is 0.410, 0.171, and 0.255 for LDR, NPL, and NIM, respectively, which has surpassed the criteria of sig. value > 0.05 to be considered homoscedastic.

The multicollinearity test output revealed a Tolerance Value of 0.565 and VIF of 1.769 for both LDR and NPL in the first regression model, and a Tolerance Value of 0.558, 0.381, and 0.484 as well as VIF of 1.792, 2.625, and 2.065 for each LDR, NPL, and NIM, respectively. Those values meet the criteria of a regression model without multicollinearity, with Tolerance Value > 0.1 and VIF < 10.

The autocorrelation test performed on each model have resulted in the Durbin-Watson value of 1.631 (1.5736 < 1.631 < 2.4262) and 1.882 (1.6505 < 1.882 < 2.3495). These outcomes have met the requirement needed (dU < dW < 4-dU) for the assumption that no autocorrelation symptoms are detected in the regression models.

These tests include the F-Significance Test (F-Test) and the measurement of the Coefficient of Determination. Both models have F significance value of 0.000, which is less than 0.05 (< 0.05), indicating each model has fulfilled the criteria of a good regression model whose overall coefficients enhance the model's fit. Moreover, the coefficient of determination through the value of the adjusted R Square indicates that the first and second regression model's independent variable may cause 48.2% and 75.8% of variation in the dependent variable, respectively. It can be concluded that the second regression model is stronger in representing the variability in the dependent variable, if compared to the first regression model.

3.3. Regression Analysis

The first regression model is defined in below equation:

$$Z = 5.304 - 0.091X1 - 1.218X2$$

From the regression, we can conclude that:

1. The constant value of 5.304 implies that if the coefficients of the other variables are assumed to be zero, the dependent variable, NIM (Z), will be at 5.304, without the influence of any other variables.
2. The coefficient of the independent variable (X1), Liquidity Risk, is -0.091, implying that with any other variables held constant, the increase in a unit of Liquidity Risk will cause a 0.091-unit decline in the dependent variable.
3. The coefficient of the other independent variable (X2), Credit Risk, is -1.218, implying that with any other variables held constant, the increase in a unit of NPL will cause a 1.218-unit decline in the dependent variable.

The second regression model is defined in below equation:

$$Y = 3.018 - 0.028X1 - 1.337X2 + 0.474\ Z$$

From the regression, we can conclude that:

1. The constant value of 3.018 implies that if the coefficients of the other variables are assumed to be zero, the dependent variable, Profitability (Y), will be at 3.018, without the influence of any other variables.
2. The coefficient of the independent variable (X1), Liquidity Risk, is -0.028, implying that with any other variables held constant, the increase in a unit of Liquidity Risk will cause a 0.028-unit decline in the dependent variable.
3. The coefficient of the other independent variable (X2), Credit Risk, is -1.337, implying that with any other variables held constant, the increase in a unit of NPL will cause a 1.337-unit decline in the dependent variable.

4. The coefficient of the other independent variable (X3), NIM (Z), is 0.474, implying that with any other variables held constant, the increase in a unit of NIM will cause a 0.474-unit rise in the dependent variable.

3.4. Hypothesis Testing

The partial significance test for the first regression model is as below:

Table 3. Partial Significance Test (Model 1)

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.304	1.072		4.950	.000
	SQRT_LDR	-.091	.147	-.106	-.616	.543
	SQRT_NPL	-1.218	.325	-.644	-3.746	.001
a. Dependent Variable: SQRT_NIM						

Source: Output Processed with SPSS 25 (2022)

From the test, we can conclude that:

1. Liquidity Risk demonstrates a significant value which is greater than 0.05 (0.543 > 0.05), and a t-count value which is ≥ - t-table and ≤ t-table (-2.04523 ≤ -0.616 ≤ 2.04523), concluding that it has an insignificant impact towards NIM.
2. Credit Risk demonstrates a significant value which is less than 0.05 (0.001 < 0.05), and a t-count value which is less than – t-table (-3.746 < -2.04523), concluding that it has a significant impact towards NIM.

The partial significance test for the second regression model is as below:

Table 4. Partial Significance Test (Model 2)

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.018	1.259		2.398	.023
	SQRT_LDR	-.028	.128	-.025	-.215	.831
	SQRT_NPL	-1.337	.343	-.559	-3.902	.001
	SQRT_NIM	.474	.161	.375	2.950	.006
a. Dependent Variable: SQRT_ROA						

Source: Output Processed with SPSS 25 (2022)

From the test, we can conclude that:

1. Liquidity Risk demonstrates a significant value which is greater than 0.05 (0.831 > 0.05), and a t-count value which is ≥ - t-table and ≤ t-table (-2.04841 ≤ -0.215 ≤ 2.04841), concluding that it has an insignificant impact towards Profitability.
2. Credit Risk demonstrates a significant value which is less than 0.05 (0.001 < 0.05), and a t-count value which is less than – t-table (-3.902 < -2.04841), concluding that it has a significant impact towards Profitability.
3. NIM demonstrates a significant value which is less than 0.05 (0.006 < 0.05), and a t-count value which is greater than t-table (2.950 > 2.04841), concluding that it has a significant impact towards Profitability.

To examine the role of Net Interest Margin (NIM) as the intervening variable, the path analysis test is conducted with below result:

Table 5. Direct, Indirect, and Total Effect Path Coefficient

	Sig	Direct Effect	Indirect Effect (through NIM)	Total Effect
X1 – Z	0.543	-0.106	-	-0.106
X2 – Z	0.001	-0.644	-	-0.644
X1 – Y	0.831	-0.025	-0.040	-0.065
X2 – Y	0.001	-0.559	-0.242	-0.801
Z - Y	0.006	0.375	-	0.375

Source: Prepared by Writer (2022)

From the test, we can conclude that:

1. The result implies a greater coefficient of the direct effect if compared to the indirect effect through NIM as mediator (-0.025 > -0.040). It can be interpreted that NIM fails to intervene between the effect of Liquidity Risk on Profitability.
2. The result implies a lower coefficient of the direct effect if compared to the indirect effect through NIM as mediator (-0.559 < -0.242). It can be interpreted that NIM may intervene between the effect of Credit Risk on Profitability.

3.5. Discussion

The effect of Liqudity Risk on NIM turned out not to be significant, indicating the decision to stay in the null hypothesis and to reject the alternate H1. The outcome revealed that banks' degree of liquidity which is influenced by the fluctuations in loans issued and TPF collected has weak ability to affect banks' NIM. There is a contradiction between this study's outcome and Setiawan et al. (2019)'s outcome, who in his study found that liquidity risk established a significant effect on NIM. The result attained shows that an increase in Liquidity Risk measured by LDR due to the increase in loans channeled and/or decrease in TPF collected, may only result in a no significant decline in the interest income gained and/or rise in interest expense incurred. The small changes in these interest incomes and expenses could not create a significant variation in the amount of NIM or the amount of net interest income earned on banks' earning assets.

The effect of Credit Risk on NIM is found to be significant, indicating the ability to reject the null hypothesis and that the alternate H2 is true. The attained result is not in accordance with the outcomes obtained by Puspitasari et al. (2021), who found that NPL has no significant impact on ROA, though, it is in line with the findings of Setiawan et al. (2019) which conclude that there is a significant effect of Credit Risk on NIM, as well as with the explained theory. The output implies that the increase in Credit Risk as the consequences of a rise in non-performing loans, may result in a significant decrease in the amount of interest income collected, due to the principal and interest repayment delay or overdue. Consequently, these interest incomes collected which decline in a significant amount will affect banks' NIM also in a significant way.

The effect of Liquidity Risk on Profitability turned out not to be significant, indicating the decision to stay in the null hypothesis and to reject the alternate H3. These outcomes are against the research done previously, including those revealed by Rahmi & Sumirat (2021) that Liquidity Risk has a significant impact on Profitability, though, are strengthen by Riyanto and Surjandari (2018) for showing that there is no significant effect in Liquidity Risk towards Profitability. The explained theory is supposed to have banks' profitability increase significantly due to a unit increase in Liquidity Risk. This is as the consequences borne for giving up a higher degree of liquids, in which circumstances, banks' loans channeling ability is improved, significantly and positively influencing banks' return for a better assets'

productivity. However, in contrary, the results indicates that the fluctuations in Liquidity Risk will only result in a no significant changes in banks' Profitability.

The effect of Credit Risk on Profitability is found to be significant, indicating the ability to reject the null hypothesis and that the alternate H4 is true. The result above is strengthened by the previous research done by Setiawan et al. (2019) and Riyanto and Surjandari (2018) stating that Credit Risk or NPL has a significant effect on Profitability or ROA. However, it is not in accordance with the study of Puspitasari et al. (2021), in which they found that NPL affects ROA insignificantly. It implies that the deterioration in loans quality which higher the Credit Risk, may result in significant fall in the level of return made on banks' assets. This is because banks' income may be significantly decrease for the increase in principal and interest repayment overdue.

The effect of Net Interest Margin on Profitability is found to be significant, indicating the ability to reject the null hypothesis and that the alternate H5 is true. There is similarity between the results derived in the current study and those revealed by Puspitasari et al (2021), in which NIM was found to affect ROA significantly, and they are contradicting to the findings that NIM has no effect on ROA, studied and concluded by Rahmi and Sumirat (2021) . NIM reflects the ability in maintaining a desired margin between interest offered to TPF's providers and charge on debtors. A higher NIM implies a better income gained from the earning assets after considering the cost incurred on those assets. To this extent, a one-unit increase in NIM will then cause a significant increase in banks' ability to generate return from their assets.

NIM fails to intervene between the influence established in Liquidity Risk towards Profitability, indicating the decision to stay in the null hypothesis and that the alternate H6 cannot be approved. The result, however, does not go along with the study of Puspitasari et al. (2021) whose finding shows that LDR influences Profitability through the mediation of NIM. It can be explained from the output that a higher TPF are to be granted as loans, a greater is the exposure on Liquidity Risk. Such situation may only create a little decline in banks' net interest income. This will not result in much change in the NIM, and consequently, no significant influence will be resulted towards banks' level of Profitability.

NIM is proven to intervene between the influence established in Credit Risk towards Profitability, indicating that the alternate H7 is approved against the null hypothesis. In contrary to the result and interpretation, there is dissimilarity between the current findings with those concluded by Puspitasari et al (2021), who stated that NIM, as an intervening variable, failed to mediate the effect of NPL towards Profitability. The result implies that a rise in Credit Risk for the increase in the amount of Non-Performing Loans may result in a significant decrease in bank's net interest income earned. The significant decline in banks' net interest income is due to the debtors' repayment overdue. This will have the level of NIM to be significantly affected. As the consequences of a significant change in NIM, the return made on banks' assets may as well fluctuate in a significant amount.

4. CONLUSION

Analysing the Conventional Commercial Banking Companies listed on the IDX for the period of 2020 to 2022, Liquidity Risk, represented by LDR, has an insignificant impact on NIM and Profitability, represented by ROA, of the Conventional Commercial Banking Companies listed on the IDX for the period of 2020 to 2022. By a one-unit increase in Liquidity Risk, each NIM and Profitability might decrease insignificantly, and vice versa. Under the Uncertainty-Bearing Theory, the result might be due to the unpredictable unfavorable circumstances. Credit Risk, represented by NPL, has a significant impact on NIM and Profitability. A one-unit increase in Credit Risk might lead to a significant decline in each NIM and Profitability, and vice versa, seen as the consequences of the lending decisions or judgments made in uncertainties or for the unfavorable circumstances under the Uncertainty-Bearing Theory. NIM has a significant impact on Profitability. A one-unit increase in NIM might lead to a significant increase in Profitability, and vice versa, seen as the reward of the pricing decisions or judgments made in uncertainties based on the knowledges and skills possessed under the Uncertainty-Bearing Theory.

NIM fails to intervene between the impact of Liquidity Risk on Profitability. A one-unit change in Liquidity Risk might not create any significant change in NIM, which indirectly will not cause a significant fluctuation in Profitability. Under the Uncertainty-Bearing Theory, the result might be due to the unpredictable unfavorable circumstances. Lastly, NIM is found to intervene between the impact of Credit Risk on Profitability. A one-unit change in Credit Risk might create a significant change in NIM which indirectly result in a significant fluctuation in Profitability, seen as the consequences of the judgments made, through the corresponding pricing decisions, in uncertain circumstances under the Uncertainty-Bearing Theory.

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