

The Impact Of Credit Risk, Liquidity Risk, And Operational Risk On Banking Profitability Case Study at KBMI Bank for Three Periods

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Abstract—This study aims to analyze the influence of credit risk, liquidity risk, and operational risk on banking profitability, with KBMI Bank as a case study. The data used are financial data from KBMI Bank during 2019-2022. The analysis method used is panel data regression to evaluate the relationship between independent variables (credit risk, liquidity risk, and operational risk) and the dependent variable (profitability). The results show that liquidity risk and operational risk significantly affect the profitability of KBMI Bank 3 during the research period. Operational Risk has a significant negative impact on profitability, while Liquidity Risk has a significant positive impact. These findings indicate the importance of effective risk management in improving the financial performance of banks. This study contributes to understanding the factors influencing banking profitability, especially in the context of KBMI Bank. The practical implications of this research are the importance of better risk management to improve bank profitability, with a focus on controlling credit and operational risks as well as optimizing liquidity risk utilization.

Keywords— Credit risk, liquidity risk, operational risk, profitability, banking, private bank

I. INTRODUCTION

Public trust For saving funds in the bank is influenced by the information obtained about level bank health. In Law Republic of Indonesia Law No. 10 of 1998 concerning Banking that mentions that the bank is a business entity that collects funds from public in form savings and distribute them to public in form credit and or other forms with objective For increase level people's lives. In terms of this, the Bank is something functioning institution as intermediary finance (*financial intermediary*) between the owning party excess funds with parties who lack funds (*deficit unit*). Importance function banking This for society, for increase trust in keep the funds are in the bank. In terms of trust this, society influenced by information about level the health of the bank. Good bank management, of course will push system good finances too, later will influential positive on performance banking.

According to POJK no. 4/POJK.03/2016, bank health level can be assessed based on 4 factors (*risk profile, good corporate governance, earnings, and capital*). In factors *risk profile*, there is factor credit represented by Non Performing Loans (NPL), factor liquidity represented by *the Loan Deposit Ratio* (LDR) and factors operational represented Cost Operational To Income Operational (BOPO). Profitability is ratio For evaluate ability company in look for profit or profit in something period certain (Kasmir 2019:114).

According to Bank Indonesia Regulation Number 11/25/PBI/2009 of 2009 is available a number of risk in banking, that is risk

credit, market risk, risk operational, risk liquidity, risk strategic, risk reputation, risk law and risk compliance (Putera & SH, 2020). Regarding with this study, then writer No will discuss all risk influencing banking profitability banking, author only will focus on risk credit, risk liquidity and risk operational.

In context banking, risk credit, risk liquidity, and risk operational own significant potential can influence performance and stability institution finance. Listed banks in KBMI 3 own role important in support economy, but these banks also operate in full environment with challenges and complexity. Risk credit related with potency fail pay borrower, risk liquidity involve difficulty fulfil obligation finances at that time set, temporary risk operational covers losses that arise consequence failure from internal processes.

Average of data *Return on Assets (ROA)* shows that Return on Assets (ROA) at KBMI 3 bank experienced fluctuations, which in 2020 experienced decline by 0.50% and back happen increase of 0.16% and so on happen the increase in 2022 will be 0.63%. Fluctuations in Return on Assets (ROA) at Bank KBMI during period 2019-2022 can explained by various factor economic and managerial influences to performance finance they. Change condition economy macro like level ethnic group interest, inflation, and growth economy can give impact significant to bank revenues and expenses, which in turn affects Return on Assets (ROA). Apart from that, quality portfolio Bank credit also plays a role important. Enhancement in credit problematic can cause cost provisions and losses increasing credit, reducing *Return on Assets (ROA)*. whole. Change in regulations banking and policy investment as well as funding is also potential affect ROA with change structure bank costs and income. Lastly, competition in financial markets is increasing tight can also be pressing bank profit margins, affecting ROA significantly negative.

On the average of the variable Non Performing Loans (NPL), where show that there is relationship that is not in the same direction in 2020-2021 between ratio Non Performing Loans (NPL) increased by 0.07% and Return on Assets (ROA) increased by 0.16%. Where p that, if adapt theory Where If ratio Non Performing Loans (NPL) experienced increase, then ratio Return on Assets (ROA) decreases. In 2019-2020 no there is phenomenon Because mark Non Performing Loans (NPL) rose by 0.12% and value ratio Return on Assets (ROA) decreases of 0.50%. Then in 2021-2022 neither will it There is phenomenon, due to mark Non Performing Loans (NPL) fell of 0.22% and value ratio Return on Assets (ROA) increased by 0.36%. That matter show exists relationship that is not one way between ratio Non Performing Loans (NPL) against ratio Return on Assets (ROA) will made phenomena in this research. On the average of the variable Loan to Deposit Ratio (LDR) occurs phenomenon, where show that there is relationship that is not in the same direction in 2020-2021 between ratio Loan to Deposit Ratio (LDR) is experiencing decline amounted to 2.85% and Return on Assets (ROA) increased by 0.16%. Where p that, if adapt theory Where If ratio Loan to Deposit Ratio (LDR) experienced decrease, then ratio Return on Assets (ROA) follows happen decline or in one direction. In 2019-2020 no there is phenomenon Where ratio Loan to Deposit Ratio (LDR) experienced decline of 14.98%, and ratio Return on Assets (ROA) also experienced decline of 0.50%. Then in 2021-2022 neither will it there is phenomenon Because ratio Loan to Deposit Ratio (LDR) experienced increase of 5.36%, and ratio Return on Assets (ROA) also experienced increase of 0.36%. This matter show exists relationship that is not one way between ratio Loan to Deposit Ratio (LDR) with ratio Return on Assets (ROA) becomes phenomenon in this study.

On Operational Expense Variables To Income (BOPO) where happen fluctuation during 2019-2022 period. During period the there is phenomenon Because exists connection No one way between Operational Expenses To Income (BOPO) with Return on Assets (ROA). Where if in accordance In theory, BOPO increases and ideally Return on Assets (ROA) should also increase. The increase in BOPO shows efficiency in manage burden operational, as it should be contribute to improvement profit clean or income. If BOPO goes up without comparable increase in ROA, that is Can show that increase cost operational No balanced with enhancement in use asset For produce profit.

Risk is threat, impact or possible consequences arise as consequence of the current process taking place or possibility future events. With research influence third risk the to profitability of KBMI 3 bank, us can understand extent of impact they to stability and continuity business banking. Through this study is expected can identified which strategy is more Good in manage risk as well as maintain health crucial banking for health economy in a way whole. For measure health of banks with the largest core capital can seen from profit in a company. ability A company For produce profit during period certain also called ratio profitability, and also known as profitability. The more tall ratio this, then the more competitive its economy. Analysis profitability is a must tool used company For measure its performance. One of ratio profitability important for banks is Return

on Assets (ROA). Companies understand that application management risk is one of the method For reach level Maximum profitability, for one through application management risk. Risk here refers to opportunity happen loss Mosey et al. (2018).

Bank Indonesia has emit regulations that classify commercial banks to in category specifically which is part from restructurisation industry Indonesian banking with objective For increase Power competition, consolidation industry banking and governance as well as reduce associated risks with banking. On regulations Financial Services Authority (OJK) Number 6/POJK.03/2016, has arranged about grouping banks based on activity activity business in accordance with the amount of core capital. The core capital in question is a capital consisting of from paid- in capital and reserves formed from profit earned after calculation tax. Financial Services Authority in a way official do change rule grouping banking from previously Commercial Bank for Business Activities (BUKU) became KBMI (Bank Group based on Core Capital). In the latest regulations, namely POJK No.12/POJK.03/2021 concerning Commercial Bank Consolidation, banking grouped in 4 KBMI categories. KBMI 1 is for banks that have less core capital from IDR 6 trillion, KBMI 2 for banks with core capital of IDR 6 to IDR 14 trillion, KBMI 3 for banks with core capital of IDR 14 trillion up to IDR 70 trillion, and KBMI 4 for banks that have more core capital from IDR 70 trillion (OJK, 2021:4). System grouping This made To use increase Power competitive in the world of banking 1 so that every company capable develop and deliver service best for all over society in Indonesia.

Based on background behind above, then possible problems lifted in this study are : 1) How influence Risk Credit to profitability in banking studies case at Bank KBMI 3 for the 2019-2022 period. 2) How influence Risk Liquidity to profitability in banking studies case at Bank KBMI 3 for the 2019-2022 period. 3) How influence Risk Operational to profitability in banking studies case at Bank KBMI 3 for the 2019-2022 period. 4) How influence Risk Credit, Risk Liquidity, and Risk Operational to profitability in banking studies cases at Bank KBMI 3 for the 2019-2022 period. Based on formulation problem above, then goals to be achieved in this study is Knowing and analyzing the influence of Risk Credit, Risk Liquidity, and Risk Operational on profitability with partial and simultaneous method. Based on exposure background behind problem, grounding theory, and research previous ones that have been outlined before, then hypothesis in this study is :

H 1: Risk Credit influential negative to Profitability

H 2: Risk Liquidity influential positive to Profitability

H 3: Risk Operational influential negative to Profitability

H 4 : Suspected Risk Credit, Risk Liquidity, and Risk Operational influential in a way simultaneous to Profitability

II. METHOD

Based on the type of data to be tested in this study, this research use type study quantitative that is research that emphasizes The analysis starts with numerical data (numbers). from data collection, data interpretation, and then processed use method statistics. Object in this study is ratio finance, among others is Risk Credit, Risk Liquidity, Risk Operations, and Profitability (ROA). Subject in this study are the banks that come in to in KBMI group 3.

In this research, institution finance in the sector banking used as the unit of analysis. Population in this research is all over report finance company incoming banking to in KBMI group 3 obtained from the official website of each bank or *Annual Report*. Deep sample study use *Purposive Sampling*. *Purposive Sampling* is technique determination sample with consideration certain (Sugiyono, 2015). This study use secondary data types. Secondary data is the data obtained from existing sources. Data can be obtained from Report Finance Annual (*annual report*) obtained from *website* of each relevant bank. Data collection methods used in this study is Documentation Techniques. Documentation can seen from data a institution finance that is Financial Services Authority and Bank Indonesia.`

III. RESULT AND DISCUSSION

3.1. Result of Research Analysis

TABLE I. DESCRIPTIVE TEST RESULT

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Risk Credit (NPL)	40	.80	4.78	2.7330	.95546
Risk Liquidity (LDR)	40	60.84	163.00	87.9272	20.93544
Risk Operational (BOPO)	40	66.51	98.12	81.2858	7.08612
Profitability (ROA)	40	.13	3.00	1.5448	.56668
Valid N (listwise)	40				

Source : SPSS 25 output (processed data)

Based on the output of SPSS calculations then can concluded If there are 160 data used in study Where minimum NPL value, namely of 0.80% and value maximum of 4.78%. Lowest NPL value contained in the National Pension Savings Bank in 2019 and value the highest is at the State Savings Bank in 2019. Meanwhile the average value (*mean*) is 2.73% and value standard deviation it's 0.95%. This means that the average NPL at Bank KBMI 3 for the 2019-2020 period is on standards set by Bank Indonesia and are in the very healthy condition. In the LDR variable, the minimum LDR value is 60.84%, namely from Bank Mega in 2019 to 2021 and value maximum his is 163% of the National Pension Savings Bank in 2019. Meanwhile the average value (*mean*) is 87.92% where the average value is at in criteria Enough Healthy. Whereas Standard Deviation his is 20.93%.

In the BOPO variable, the minimum BOPO value is 66.51%, namely from Bank Mega in 2019 and value maximum his is 98.12% of Bank Tabungan Negara in 2019. Meanwhile the average value (*mean*) is 81.28% where the average value is at in criteria Enough Healthy. Whereas Standard Deviation his is 7.08%. In the ROA variable, the minimum ROA value is 0.13%, namely from the State Savings Bank in 2019 and value maximum his is 3.00 % from Bank Danamon in 2019. Meanwhile the average value (*mean*) is 1.5% where the average value is at in criteria Enough Healthy. Whereas Standard Deviation his is 0.56%.

TABLE II. NORMALITY TEST RESULT

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residuals
N		38
Normal Parameters ^{a, b}	Mean	.0000000
	Std. Deviation	.21074011
Most Extreme Differences	Absolute	.099
	Positive	.061
	Negative	-.099
Statistical Tests		.099
Asymp. Sig. (2-tailed)		.200 ^{c, d}
a. Test distribution is Normal. b. Calculated from data. c. Lilliefors Significance Correction. d. This is a lower bound of the true significance.		

Source : SPSS 25 output (processed data)

Based on test output via SPSS in the table on can seen that based on the *one sample Kolmogorov-Smirnov Test* obtained mark Asymp. Sig. (2-tailed) of 0.200 ie mark the more from 0.05. Based on this data can said that data normally distributed.

TABLE III. MULTICOLLINEARITY TEST RESULT

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,282	,531		,531	,599
Risk Credit (NPL)	,049	,062	,196	,791	,434
Risk Liquidity (LDR)	,001	,002	,088	,482	,633
Risk Operational (BOPO)	-.003	,008	-.103	-.412	,683

a. Dependent Variable: Abs_Res

Based on table III, known that:

- 1) VIF value of the NPL variable is $2,254 < 10$, then can indicated matter the No happen multicollinearity.
- 2) VIF value of LDR variable is $1,230 < 10$, then can indicated matter the No happen multicollinearity.
- 3) VIF value of BOPO variable is $2.298 < 10$, then can indicate matter the No happen multicollinearity.

Furthermore happen multicollinearity or or not with see mark *tolerance* If above 0.10 then No caught symptom multilinearity. Because based on table on can seen that results tolerance of NPL of 0.444, LDR of 0.813, and BOPO of 0.435 or can said that variables NPL, LDR, and BOPO results tolerance above 0.10. In results calculation on mark The significance of NPL is 0.434, while the value for the LDR variable is is 0.633 and the BOPO variable is 0.683. Significance value variables on more from 0.05. From the results the so Can concluded No There is heteroscedasticity or No There is inequality variant of the residual of One observation to other observations in the regression model and regression model worthy used.

TABLE IV. AUTOCORRELATION TEST RESULT

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,844 ^a	,712		,678	.32569

a. Predictors: (Constant), LAG_Y, Risk Operational, Risk Liquidity, Risk Credit
 b. Dependent Variable: Profitability

Source : SPSS 25 output (processed data)

From testing the obtained Durbin-Watson value is 1.812. The sample used was 40 (n) and the number variable independent totaling 3 (k), can is known dL value = 1.338 and dU 1.659. From value the can seen the condition as following.

1. If $DW > DU$, then regression No there is autocorrelation. In calculations In this case, the value of $DW > DU$ is $1.812 > 1.659$, meaning No there is autocorrelation.
2. If the DW value $< 4-DU$, then No there is autocorrelation. In calculations the the $DW < 4-DU$ value is $1,812 < 2,341$, meaning No there is autocorrelation.

Analysis this linear regression used For know How many big the influence exerted by a variable independent to variable dependent. As for the equation multiple linear regression in a way general that is as following :

$$Y = 6.301 + 0.104RK - 0.013RL - 0.073RO + 1$$

Information : Y = Profitability (ROA) RK = Risk Credit (NPL) RL = Risk Liquidity (LDR) RO = Risk Operational (BOPO)

To know closeness connection between variable independent to variable dependent, then a multiple linear regression test was carried out. Multiple linear regression test results can seen in table following.

TABLE V. AUTOCORRELATION TEST RESULT

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6,031	,737		8,189	,000
	Risk Credit	.104	,086	,175	1,212	,233
	Risk Liquidity	.013	,003	,474	4,433	,000
	Risk Operational	-.073	.012	-.907	-6,211	,000

a. Dependent Variable: Profitability

Source : SPSS 25 output (processed data)

From Equation linear regression above, you can interpreted as following :

1. Constant value of 6,031 means if NPL, LDR, and BOPO have mark The same with zero so ROA variable is 6,031.
2. Coefficient value NPL regression of 0.104 means if the NPL variable increased by One unit then ROA will also increase by 0.104 units. Coefficient the worth positive means there is influence positive between NPL and ROA at banks registered with KBMI 3. Increasingly increase NPL value to ROA, then the more the ROA value is also large.
3. Coefficient value LDR regression of 0.013 means if LDR variable increases by One unit then ROA will also increase by 0.013 units. Coefficient the worth positive means there is influence positive between LDR and ROA at banks registered with KBMI 3. Increasingly increase LDR value to ROA, then the more the ROA value is also large.
4. BOPO coefficient is -0.073 and has a negative value if BOPO value falls of -0.073 then variable dependent i.e. ROA will also fell by -0.073.

TABLE VI. COEFFICIENT DETERMINAT TEST RESJULT

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,816 ^a	,666	,638	.34104

a. Predictors: (Constant), Risk Operational, Risk Liquidity, Risk Credit

Source : SPSS 25 output (processed data)

From table on show connection between NPL, LDR, and BOPO against Profitability at KBMI 3 bank in Indonesia. R value ² namely 0.666 or The same with approaching zero. If the R² value approaches zero It means There is influence variable X against Y variable, only just its influence the more small. Std value. Error of the Estimate is 0.34 where mark the describe If regression the more appropriate in predict variable independent.

Based on table from results SPSS calculations in tables above, shown that t_{table} For $df = nk = 40 - 4 = 36$ (n = total sample used and k is amount variable) with $\alpha = 0.05$, which is 1.68830. with thereby need compared to between t_{count} and t_{table} For know proposed hypothesis significant or No. If value $t_{count} > t_{table}$ then H_1 can accepted and if $t_{count} < t_{table}$ then H_1 is rejected.

As for value T_{table} use formula as following :

$$T_{table} = \left(\frac{\alpha}{2}; n - k - 1 \right) \quad T_{table} = \left(\frac{0,05}{2}; 40 - 3 - 1 \right)$$

$$T_{table} = 0,025 ; 36$$

$$T_{table} = 2.02809$$

If the sig value <0.05 then It means variable independently (X) independently Partial influential to variable dependent (Y). From table on can seen If :

1. Testing 1

H₁ : Risk Credit No influential to Profitability

Testing First done For test is Risk Credit influential to Profitability. From the results above is obtained results with mark t_{count} amounting to 1,212 and value significance of 0.233. From value the can taken conclusion If mark t_{count} < of t_{table} or 1.212 < 2.02809 then H₁ is rejected.

2. Testing 2

H₂ : Risk Liquidity influential to Profitability

Testing second done For test is Risk Liquidity influential to Profitability. From the results above is obtained results with mark t_{count} amounting to 4,433 and value significance of 0,000. From value the can taken conclusion If mark t_{count} > from t_{table} or 4.433 > 2.02809 then H₂ is accepted.

3. Testing 3

H₃ : Risk Operational influential to Profitability

Testing third done For test is Risk Operational influential to Profitability. From the results above is obtained results with mark t_{count} of -6,211 and value significance of 0,000. From value the can taken conclusion If mark t_{count} < of t_{table} or -6.211 < 2.02809 then H₃ is accepted.

TABLE VII. SIMULATANOUS TEST RESULT

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8,337	3	2,779	23,892	,000 ^b
	Residual	4,187	36	.116		
	Total	12,524	39			
a. Dependent Variable: Profitability						
b. Predictors: (Constant), Risk Operational, Risk Liquidity, Risk Credit						

Source : SPSS 25 output (processed data)

Based on table on connection between NPL, NIM, and LDR variables on ROA are obtained mark significant of 0.000 or 0%, where mark This more small from alpha value ie of 0.005 or 5%, so can interpreted that the data is in table Annova the own significant results more small of alpha (0.000 < 0.005). F test results processing the above data obtained calculated F value of 23,892 and F table value can seen in the table statistics with level significance 5% or 0.05, Can also be calculated use formula :

$$F_{table} = F(k ; n - k) \quad F_{table} = (3 ; 40 - 3)$$

$$F_{table} = 3 ; 36 \quad F_{table} = 2,866$$

Obtained calculated F value more big from F table. So from results study the can concluded that in a way simultaneous or in a way together there is significant influence between NPL, NIM and LDR variables on ROA.

3.2. Discussion

By simultaneous, Risk Credit (*Non Performing Loans*), Risk Liquidity (*Loan to Deposit Ratio*), and Risk Operations

(Operational Expenses to Income) has an effect to Profitability (*Return on Assets*) with obtain F Test value, namely F_{count} 23.892 and F_{table} 2.87. with mark level significance 0.05 then can seen that $F_{count} > F_{table}$ 2.87 or 23,892 > 2.87 means signifies that the independent variable has an effect to variable dependent.

As for based on results testing coefficient determinations made For see exists connection between Risk Credit (*Non Performing Loans*), Risk Liquidity (*Loan to Deposit Ratio*), and Risk Operations (Operational Expenses to Income) against Profitability (*Return on Assets*), obtained results If There is influence between independent variable against variable dependent.

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IV. CONCLUSION AND RECOMMENDATION

4.1. Conclusion

Research conducted at Bank KBMI 3 with object used that is Risk Credit (*Non Performing Loans*), Risk Liquidity (*Loan to Deposit Ratio*), and Risk Operations (Operational Expenses to Income) against Profitability (*Return on Assets*) with take the secondary data that comes from it from report Bank annual with amount sample as many as 10 banks are included processed in Bank KBMI 3 with SPSS 25 application is obtained results data analysis and results study as conclusion following.

Variable Risk Measured credit with use *Non Performing Loans* (NPL) do not influential to Measured profitability use *Return on Assets* (ROA) at KBMI bank 3 for the 2019-2022 period. Research result This explain that the more big his *Non Performing Loans* (NPL) do not influential to enhancement Profitability.

Variable Risk Measured liquidity with use *Loan to Deposit Ratio* (LDR) has an influence positive and significant to Measured profitability use *Return on Assets* (ROA) at KBMI bank 3 for the 2019-2022 period. Research result This explain that the more tall Risk Liquidity faced by banks in period that, then tends to increase as well level profitability.

Variable Risk Measured operations using Operational Expenses To Income (BOPO) has an effect negative and significant to Measured profitability use *Return on Assets* (ROA) at KBMI bank 3 for the 2019-2022 period. Research result This explain the more big BOPO value issued by the bank then the more decrease profitability obtained banking

Variable Risk Credit (*Non Performing Loan*), Risk Liquidity (*Loan to Deposit Ratio*) and Risk Operations (Operational Expenses to Income) by simultaneous own influence to Profitability. Research result This showing variable free influential of 0.638% in explain Profitability

4.2. Recommendation

Based on results research conducted is known that Risk Credit (*Non Performing Loans*), Risk Liquidity (*Loan to Deposit Ratio*), and Risk Operations (Operational Expenses to Income) against Profitability (*Return on Assets*) of Banks registered with KBMI 3. So, with guard the quality of NPL, LDR, and BOPO then Profitability will the more increase. Banking in Indonesia, especially Bank of KBMI 3, is necessary Keep going manage risk financial ratios finance still awake with good and trusting customers towards the bank will still the same, and the bank's profitability will be the more increase. Year study will adapted to suit researchers furthermore can do study with use other variables and topics more research varied, as well as for research become more accurate.

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REFERENCES

- [1] Adalsteinsson, G., 2014. *The Liquidity Risk Management Guide: From Policy to Pitfalls*. sl: sn.
- [2] Agoes, Sukrisno. 2017. *Auditing: A Guide Practical Inspection Accounting by Public Accountants*. Jakarta: Salemba Four
- [3] Agus, Sartono. 2015. *Management Finance : Theory and Applications*. Edition 4. Yogyakarta: BPFE.
- [4] Alzorqan, DST, 2014. *Bank Liquidity Risk and Performance: An Empirical Study of the banking system in Jordan*. Research Journal of Finance and Accounting.
- [5] Amin GhenimiB, Hasna Chaibi B, Mohammad Ali Brahim Omari 2017. *Influence risk liquidity and risk credit to stability bank: Evidence from MENA region Borsa Istanbul*. Borsa Review Review I_stambul 17-4 (2017) 238e248
- [6] Arens, A. Alvin., Elder, Randal J., and Beasley, Mark S. 2015. *Auditing and Assurance Services Approach Integrated*. Volume I. Fifteenth Edition. Jakarta: Erlangga.
- [7] Bank Indonesia 2013. Bank Indonesia Regulation number 15/15/PBI/2013 concerning giro mandatory minimum for commercial banks in rupiah and foreign currency for commercial banks conventional.
- [8] Bank Indonesia 2015a. Bank Indonesia Regulation number 17/11/PBI/2015 concerning change on Indonesian banking regulations number 15/15/PBI/2013 concerning giro mandatory minimum for commercial banks in rupiah and foreign currency for commercial banks conventional. (1): 1–13.
- [9] Bank Indonesia 2015b. Bank Indonesia circular number 17/17/DKMP dated 26 June 2015. 151(17): 10–17. Bank Indonesia 2016. Bank Indonesia Regulation number 18/14/PBI/2016 concerning giro mandatory minimum for commercial banks in rupiah and foreign currency for commercial banks conventional. (174).
- [10] Bubu, Frederika Adelvia. 2016. *The influence of NPL and LDR on Profitability with CAR as Intervening variables in companies banks listed on the Indonesian Stock Exchange*
- [11] Dasep Mohamad Safei 2020. *Influence Risk Financing And Risk Operational To Profitability at Bank Bjb Syariah Tasikmalaya Branch Office*. Journal Assessment Islamic Economics and Law Research Vol.5 No.
- [12] Dewi Handayani 2021. *Influence Risk Liquidity and Risk Credit To Financial Distress in the Banking Sector on the Stock Exchange Indonesia*. Journal Fundamental Management (JFM) Vol. 1 No. 1
- [13] Duho, KCT et al., 2020. *Bank Risk, Profit Efficiency and Profitability*. Bank Risk, Profit Efficiency and Profitability in a Frontier Market.
- [14] E. Hoseininassab, KYNMRK, 2013. *Effects of risk parameters (credit, operational, liquidity and market risk) on banking system efficiency (studying 15 top banks in Iran)*. Iranian Economic Review.
- [15] Fahmi, Irham. 2014. *Introduction Management Finance*. Bandung: Alphabeta.
- [16] Fajrida, S. (2018). *Influence Profitability, Company Size and Asset Growth Against Capital Structure in Companies on the Indonesian Stock Exchange* . 8(1), 627–636.
- [17] Ghazali, Imam. 2016. *Application Multivariate Analysis with the SPSS Program*. Cet. VIII. Semarang: Dipanegoro University Publishing Agency.
- [18] Harmono. (2014). *Management Finance Balanced Scorecard Based Approach to Theory, Cases and Business Research*. Jakarta: Bumi Literacy.
- [19] Hery 2019. *Management banking*. Jakarta: PT Grasindo.
- [20] Hunjra, AI, Mehmood, A., Nguyen, HP & Tayachi, T., 2020. *Do firm-specific risks affect bank performance?*. International Journal of Emerging Markets, Issue Emerald Publishing Limited

- [21] Ibn Zakaria Dwinanda, Chorry Sulistyowati 2021. *The Effect Of Credit Risk And Liquidity Risk On Bank Stability*. Journal Applied Economics Vol. 6 No. 2
- [22] Bond Indonesian Banker 2015b. *Management risk 2 (identify risk liquidity, reputation, legal, compliance and bank strategy)*. First ed. Jakarta: PT Gramedia Pustaka Utama
- [23] Bond Indonesian Banker 2015a. *Management risk 1 (identify market, operational and bank credit risks)*. First ed. Jakarta: PT Gramedia Pustaka Utama.
- [24] Bond Indonesian Banker 2015b. *Management risk 2 (identify risk liquidity, reputation, legal, compliance and bank strategy)*. First ed. Jakarta: PT Gramedia Pustaka Utama.
- [25] Bond Indonesian Banker 2015a. *Management risk 1 (identify market, operational and bank credit risks)*. First ed. Jakarta: PT Gramedia Pustaka Utama.
- [26] Isam Saleh, MAA, 2020. *The effect of credit risk, liquidity risk and bank capital on bank profitability: Evidence from emerging markets*. Cogent Economics
- [27] Ismail Adelopo, RLVT, 2018. *Determinants of bank profitability before, during, and after the financial crisis*. International Journal of Managerial Finance.
- [28] Ivan Krisna Aji1, Gusganda Suria Manda, 2021. *Influence Risk Credit, and Risk Liquidity To Profitability in State-Owned Banks*. Faculty of Economics, Singaperbangsa University, Karawang, West Java, Indonesia
- [29] Kasmir, Jakfar. 2013. *Banks and Financial Institutions Other*. Jakarta: Rajawali Pers
- [30] Ly, KC, 2015. *Liquidity Risk, Regulation and Bank Performance: Evidence from European Banks*. Global Economy and Finance Journal, Volume 11 – 33
- [31] Ni Wayan Wita Capriani, I Made Dana. 2016. *Influence Risk Credit Risk Operations and Risks Liquidity To Profitability Bpr in Denpasar City*. E- Journal Management Unud, Vol. 5, no. 3
- [32] Financial Services Authority 2016a. Regulation Financial Services Authority Republic of Indonesia number 18/POJK.03/2016 concerning application management risk for commercial banks. FSA, 1–29.
- [33] Financial Services Authority 2016b. Financial Services Authority press release SP-34/DKNS/OJK/4/2016. (April): 2.
- [34] Financial Services Authority 2017. Circular Financial Services Authority No. 14/SEOJK.03/2017 concerning level public bank health. 24.
- [35] FSA. Circular letter Financial Services Authority Number 14/SEOJK.03/2017. Regulation Financial Services Authority POJK Number 12/POJK.03/20
- [36] Munawar, A., Rahmayanti, R. and Mulyana, M., 2022. The Effect Of Intellectual Capital, Company Growth, And Return On Assets On Company Value [Study on Building Construction Subsector Companies Listed on the Indonesia Stock Exchange for the 2016-2021 Period].
- [37] Pamungkas, B., Said, J., Mohammed, N., Djanegara, M.S., Magdalena, M., Maulina, D., Meliala, R.N.B., Kurniawan, A. and Sarah, S., 2024. Enhancing the Competitiveness of Malaysian and Indonesian MSME Through Governance and Digitalization.
- [38] Paramaiswari, ND (2019). *Influence Bank Health Level Ratio Against Commercial Bank Profit Growth (Study of State-Owned Banks in Indonesia 2008 =2017)*. Airlangga University.
- [39] Rawan Khamis AL- kiyumi, Zamzam Nasser AL- hattali, Essia Ries Ahmad. *Influence Risk Credit, Risk Liquidity and Bank Capital Against Bank Profitability : Evidence From Emerging Markets*.

- [40] Rose Waithira Kamau, DJGDFM, 2018. *The Effect of Operational Risk Management on Financial Performance of Commercial Banks: A Case of Tier Two and Three Commercial Banks in Kenya*. The International Journal of Business & Management
- [41] Saeed, MH, 2015. *Examining the relationship between operational risk, credit risk and liquidity risk with performance of Malaysian Banks*. Doctoral dissertation, North University Issue.
- [42] Sartono, & Fatmawati. (2015). *Management Finance Theory and Applications*. Yogyakarta: BPFE.
- [43] Sarwindah, Bobby. 2014. *Analysis The influence of NPL, LDR, and BOPO on Changes in Profit with CAR as Intervening Variables*. Scientific articles
- [44] Serhat Yüksel, SMMM Ö., 2018. *Determinants of Profitability in the Banking Sector : An Analysis of Post-Soviet Countries*. Economies.
- [45] Setiawan, H. and Mayangsari, S., 2020. ANALYSIS OF FINANCIAL PERFORMANCE OF PDAMS AFFECTED BY ENVIRONMENTAL PERFORMANCE AND ENVIRONMENTAL ACCOUNTING WITH AGENCY COST MEDIATION. *European Journal of Business and Innovation Research*, 8(5), pp.38-55.
- [46] Shella Tehresia, Mesrawati, Meiliana Dewi, Elisabeth Yohanes Wijaya, Cindy Billyandi 2021. *Influence Risk Credit, Risk Liquidity, Market Risk, And Risk Operational To Profitability In Banking Sector Companies*. Syntax Literate: Journal Scientific Indonesia p-ISSN: 2541-0849 e-ISSN: 2548-1398 Vol. 6, no. 9
- [47] Sintyana, IPH, & Artini, L. GS(2019). *Influence Profitability, Structure Company Size Capital and Policies Dividend Towards Company Value*. E- Journal Udayana University Management, 8(2), 7717– 7745.
- [48] Sofiatin, D. A. (2020). *Influence Profitability, Leverage, Liquidity, Size Company, Policies Dividend On Company Value (Empirical Study of Manufacturing Companies Subsector Industrial and Chemical Accounting)*, 01, 47–57.
- [49] Sudana, I Made. (2015). *Management Corporate Finance*. Edition 2. Jakarta: Erlangga
- [50] Sudirman, I Wayan. 2013. *Management Banking. Going to Banker Conventional the Professional*. KENCANA Publisher. Jakarta. Sugiyono. 2014. *Research Methods Qualitative, Quantitative, and R&D*. Alfabeta. Bandung
- [51] Supriyono, RA 2018. *Accounting Behavior*. Yogyakarta: Gadjah Mada University Press.
- [52] Susan Kerubo Onsongo, SMAMLWM, 2020. *Financial Risk and Financial Performance: Evidence and Insights from Commercial and Services Listed Companies in Nairobi Securities Exchange, Kenya*. International Journal of Financial Studies, p. 51.
- [53] Circular Letter No. 6/23/DPNP Dated 31 May 2004 concerning Procedures for Assessing General Health Levels.
- [54] Sri Wellis Anggraeni1, Gusganda Suria Manda 2022. *Influence Risk Credit, Risk Liquidity and Risk Operational To Profitability of Persero Commercial Bank for the 2013-2020 Period*. Journal Education, Accounting and Finance Vol 5 No. 1
- [55] Intercession, F. (2021). *Influence of CAR, ROA, BOPO and NIM on Growth Profits at state-owned banks*. Journal Accounting and Management, 16(1), 37-53
- [56] Thian, Alexander. 2021. *Basics of Auditing Integrated and Comprehensive Edition*. Yogyakarta: ANDI Offset.
- [57] Widya Fadriyaturrohman, Gusganda Suria Manda 2022. *Influence Risk Credit, Risk Liquidity And Risk Operational To Financial performance*. Journal of Education, Accounting and Finance Vol 5 No. 1
- [58] Zanera Saroh Firdausya, et al. 2013. *Influence Good Corporate Governance (GCG) Mechanisms on Company Value (Study of Companies Included in the LQ45 Index on the Indonesian Stock Exchange)*. Journal Outlook Management. Vol. 1. No. 3. p. 1-1