

Effect of company size, liquidity and operational efficiency on bank profitability with problem credit risk as a moderating variable at commercial banks that are listed on the Indonesia Stock Exchange

Mohamad Adam; Riska Safitri*; Tertiarto Wahyudi

Dept. of Accounting, Post Graduated Program, Universitas Sriwijaya, Indonesia

**To whom correspondence should be addressed. Email: Riskasafitri713@yahoo.co.id*

Abstract

This study aims to measure and analyze the influence of company size, liquidity and operational efficiency on bank profitability with problem credit risk as a moderating variable at commercial banks that are listed on the Indonesia stock exchange. The unit of analysis in this study is 30 commercial banks listed on the official website of Bank Indonesia for the period 2012-2016. The type of data used is panel data with data analysis using purposive sampling method. The results of the study found that the size of the company negatively affected profitability, liquidity did not affect profitability, operational efficiency negatively affected profitability, company size positively affected problem credit risk, liquidity did not affect problem credit risk, operational efficiency had a positive effect on problem credit risk. problem credit risk has a positive effect on profitability.

Keywords: *company size, liquidity, operational efficiency, problem credit risk, profitability*

JEL Classification: G1, G2, G32

INTRODUCTION

The banking industry as an intermediary plays an important role in the economy, where 80 percent of financing by financial institutions is carried out by banks through credit (Astohar, 2009). Banks can carry out the intermediary function well, if the bank is healthy. A healthy bank will maintain public trust, given that public trust is an important capital for the bank.

Achievement of high profit (profitability) from the banking industry is important to observe considering the size of a company's performance in general is to see how much profit the company or banking generates. The higher the bank's ability to generate profits or profitability, it is assumed that the ability of the banking system to survive in competitive economic conditions is assumed.

Company size is a determination of the size of the company. The higher total assets that indicate the assets owned by the company indicate that the company is classified as a large company. And conversely, the lower total assets indicate that the company is classified as a small company. The greater total assets indicate that the greater the assets owned by the company so that investors will be more secure in investing in the company.

Bank income is also inseparable from the amount of credit that can be channeled to the public. Credit service activities are considered to be very important and strategic

in banking, resulting in the management of credit being the main focus of management. The main purpose of credit management is for banks to maximize the health of financial performance by increasing credit quantity and quality.

Credit quantity is seen and assessed from the amount and rate of growth of loans channeled, while credit quality is simple and short can be measured from the number and portion of bad loans or problem loans (Paramitha et al, 2014).

The rise and fall of profitability in each banking company is caused by several factors, including liquidity, operational efficiency, and credit risk owned by these companies (Paramitha et al., 2014). Liquidity analysis is conducted to determine the ability of banks to fulfill their short-term obligations or obligations that have matured and good LDR liquidity will support the ability of banks to create profits (profitability), so LDR liquidity has an effect on bank profitability (Susianis, 2012).

Another factor that influences bank profitability is operational efficiency because operational efficiency shows that the costs incurred to produce profits are smaller than the profits obtained from the use of these assets and the bank's profitability is highly dependent on operational efficiency. Bank profitability is also inseparable from the amount of credit that can be channeled to the community and the greater the credit disbursed, the higher the risk of credit or problem loans (Sudiyatno and Fatmawati, 2013).

LITERATURE REVIEW

Agency theory

The main principle of agency theory is the existence of a working relationship between the party that gives the authority, namely the owner or shareholder with the party that receives the authority (agent), namely the manager, in the form of a cooperation contract (Elqorni, 2009 in Primasari, 2011). Agency problems arise because there are conflicts of opinion (interests) between the owner (principle) with management (agent) (Siallagan and Machfoedz, 2006).

According to Jensen and Meckling (1976) agency relations is a relationship where the company owner (principle) entrusts the management of the company by another person, namely the manager (agent) in accordance with the interests of the owner by delegating some decision-making authority to the manager (agent). Managers in running the company have an obligation to manage the company as mandated by the principle of increasing the prosperity of the principal through increasing the value of the company, in return the manager (agent) will get a salary, bonus or other compensation.

Management as the company manager has more information about the company, knows more about internal information, and knows the prospects of the company in the future compared to the owner or shareholder, therefore the manager is obliged to provide information or signals about the condition of the company to the owner (Ujiyantho and Pramuka, 2007 in Primasari, 2011). But the information submitted is sometimes not in accordance with the actual conditions of the company. This condition is known as asymmetrical information or information asymmetry. In fact, in carrying out its obligations, the manager (agent) has other objectives, namely, prioritizing their own interests, obtaining maximum profits to improve their welfare, so that in the end it creates agency conflicts, namely conflicts of interest between management (agents) and owners or shareholders (principle) (Haruman, 2007).

Signalling theory

According to Brigham and Houston (2006), signals are actions taken by company management that provide guidance for investors about how management

views the company's prospects. This theory is based on the assumption that managers and shareholders do not have access to the same company information. There is certain information that is only known by the manager, while the shareholders do not know the information so there is no asymmetric information between the manager and the shareholders.

Signaling theory emphasizes the importance of information released by companies on investment decisions of parties outside the company. Information is an important element for investors and business people because information essentially presents information, notes or descriptions both for past, present and future conditions for the survival of a company and how the market effects. One type of information issued by companies that can be a signal to parties outside the company, especially for investors is the annual report. Information disclosed in annual reports can be in the form of accounting information, namely information relating to financial statements and non-accounting information, namely information that is not related to financial statements. The annual report should contain relevant information and disclose information that is considered important to report users both inside and outside parties. To reduce information asymmetry the company must disclose information that is owned by both financial and non-financial information (Sharpe, 1997 and Ivana 2005 in Butar, 2011).

Previous research

Ayu Widyamurti (2016) the results of the study showed capital adequacy, operational efficiency, liquidity, asset quality, and company size, had a significant negative effect on profitability. The type of bank does not moderate the influence of capital adequacy, liquidity and asset quality on the level of profitability. The type of bank moderates the influence of operational efficiency and firm size on the level of profitability. The difference in this study is by adding the variable capital adequacy, asset quality as an independent variable, the type of bank as a modernization variable and using multiple linear regression analysis techniques.

Andreana Oktaviani (2014) the results of the study showed that the amount of credit channeled had a positive effect on profitability. Credit Risk Moderates the Effect of the amount of Credit channeled on Profitability. Credit risk as moderation has a negative influence to weaken the relationship of the amount of credit channeled to profitability. The difference in this study is that there is only one independent variable, namely the amount of credit and using a simple linear regression analysis technique.

Ni Made Elin Sukmawati (2016), the results of the study show partially the growth of third party funds has no significant positive effect on profitability, credit growth has no significant negative effect on profitability, credit risk has a significant negative effect on profitability, liquidity has no significant positive effect on profitability and conditions economy has a significant positive effect on profitability. Simultaneously the growth of third party funds, credit growth, credit risk, liquidity and economic conditions have a significant effect on profitability. The difference in this study is to add the variable growth of third party funds, credit growth and economic conditions as independent variables using multiple linear regression analysis techniques.

Framework

The thinking framework in this study is arranged as in the Figure 1. In this study Financial Reports will be carried out as the main tool for companies to deliver financial information regarding management accountability (Schipper & Vincent, 2003). Information submitted through these financial statements needs to be done to meet the information needs of the company's internal and external parties. Management generally

has different interests from the principal so that they will tend to compile financial reports that are in accordance with their objectives and not in the interests of the principal. Therefore, the role of an independent auditor is needed to provide an opinion on the fairness of the company's financial statements presented by management. Thus, it is expected that the provision of capital and other stakeholders can make investment, credit and other resource allocation decisions more accurately based on information that has been audited by an independent party.

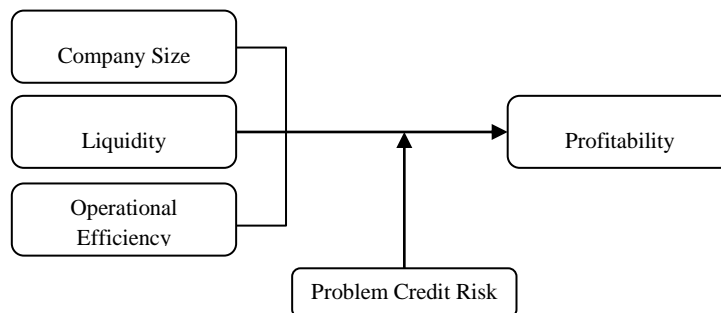


Figure 1. Research framework

Company size is a company scale that is seen from the total assets of the company at the end of the year. Total sales can also be used to measure the size of a company because the costs that follow sales tend to be larger, so companies with high sales levels tend to choose accounting policies that reduce profits.

The operational efficiency of the bank is aimed at making the bank concerned run more optimally in serving its customers. With the efficiency done, a bank can minimize expenditure figures, and conversely maximize income figures.

Hypothesis

The hypothesis in this study are as follows:

1. Company Size has a positive effect on profitability
2. Liquidity has a positive effect on profitability
3. Operational Efficiency has a negative effect on profitability
4. Company Size has a positive effect on Problem Credit Risk
5. Liquidity has a Positive effect on problem credit risk
6. Operational Efficiency has a positive effect on Problem Credit Risk
7. Problematic Credit Risk has a negative effect on Profitability

RESEARCH METHODS

The scope of research

The scope of this study is limited to examining the effect of company size, liquidity and operational efficiency on bank profitability with problem credit risk as a moderating variable. this research will use path analysis as a hypothesis test. Path analysis is a technique for analyzing causal relationships that occur in multiple regression if the independent variable influences variables depending not only directly but also indirectly. (Retherford, 1993).

Types and data sources

Data used in this study The type of data used in this study is secondary data or indirect data. Data sources were obtained from the site www.idx.co.id which included the Bank's financial statements from 2012-2016.

Method of collecting data

In this study using the research method used in this study is the hypothesis testing empirical study, namely testing hypotheses from empirical studies that have been conducted, so that findings can be explained, both consistent and inconsistent from the results of empirical findings, especially those relating to the influence of independent variables on the dependent variable and using the Explanatory Survey Method.

Data analysis technique

Data collection research is through literature studies by reviewing journals, books and papers to obtain a comprehensive theoretical foundation and reviewing the company's financial statements. The data in this study were collected through the documentation method, which is by recording or copying secondary data from the Indonesia Stock Exchange that are relevant to this study.

The structure (path) of the relationship between variables in this study is illustrated in the following figure:

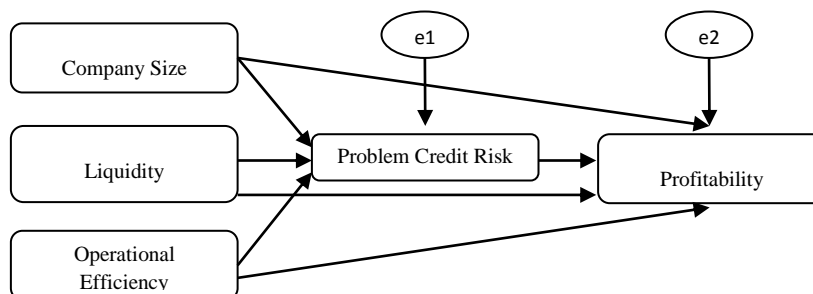


Figure 2. Relationship structure of research variables

To test the relationship between the independent variables, the dependent variable, the control variable and the moderating variable used multiple linear regression analysis, to examine the relationship between the independent and dependent variables that there are factors that strengthen or weaken (moderating variables) the test using moderated regression analysis (MRA) Data that has been collected in the research, processed using statistical data processing application, namely SPSS version 22 software. Moderated Regression Analysis (MRA) or interaction test is a special application of linear multiple regression where the regression equation contains interaction elements (multiplying two or more independent variables) with the following formula (Liana, 2009) are as follows:

1. $Y = a + b_1 X_1 + b_4 Z + b_5 X_1 Z + \epsilon_1$
2. $Y = a + b_2 X_2 + b_4 Z + b_6 X_2 Z + \epsilon_2$
3. $Y = a + b_3 X_3 + b_4 Z + b_7 X_3 Z + \epsilon_3$

Information:

- Y = Economic Growth (Profitability)
- a = Constants
- b₁ = Regression coefficient for X₁
- b₂ = Regression coefficient for X₂
- b₃ = Regression coefficient for X₃
- b₄ = Moderating variable coefficient
- b₅ = Moderating regression coefficient for X₁
- b₆ = Moderating regression coefficient for X₂
- b₇ = Moderating regression coefficient for X₃

- X₁ = Company Size variable
- X₂ = Liquidity variable
- X₃ = Operational Efficiency variable
- Z = Problem Credit Risk variable
- ε = Residual Value

The first equation is regression to see the effect between variables X₁, X₂ and X₃ towards Y (economic growth). The second equation is regression to see the influence between variables X₁, X₂ and X₃ towards Y with Z (problem credit risk) as a moderating variable. This regression result will show which independent variables have a direct and indirect influence on the dependent variable namely economic growth. In this analysis the classic assumption test is still carried out, namely normality, heterocedasticity, multicollinearity, and autocorrelation.

Definition of operational variables

The definition of operational variables in this study can be seen in Table 1. This study will use Logistic Regression as a tool to assess the relationship of independent variables to the dependent variable. The independent variables used in this study were 3 variables consisting of company size, liquidity and operational efficiency and problem credit risk as moderating variables. The dependent variable used is profitability.

Table 1. Operationalization of research variables

Concept	Concept Definition	Variable	Variable Measurement	Measurement Scale
Company Size	The company scale is seen from the total assets of the company at the end of the year. Total sales can also be used to measure the size of the company	Ln Total Assets	Company Size (Size) = Ln (Total Assets)	Ratio
Liquidity	The level of credit distribution also affects the amount of ROA, where the ratio measures the ratio of the amount of credit given by the bank to the funds received by the bank	LDR	$\frac{\text{Amount of Credit Provided}}{\text{Total Third Party Funds}} \times 100\%$	Ratio
Operational Efficiency	Comparison between operational costs and operating income in measuring the level of efficiency and ability of banks to carry out their operations	BOPO	$\frac{\text{Operational Cost}}{\text{Operating Income}} \times 100\%$	Ratio
Problem Credit Risk	Loans with a principal repayment and interest payments have been delayed for more than one year since they are due according to the agreed schedule	NPL	$\frac{\text{Total NPL}}{\text{Total Credit}} \times 100\%$	Ratio
Profitability	The ability of bank management to obtain profits (profits) as a whole	ROA	$\frac{\text{Profit Before Tax}}{\text{Total Assets}} \times 100\%$	Ratio

RESULTS AND DISCUSSION

With a span of 5 years research observation period, from 2012-2016, the number of years for the study sample was 150 samples, then a statistical description of the variable data was obtained in this study. Data processing in this study was carried out

using Microsoft Excel 2010, SPSS 22, path analysis and Amos 23 to be able to process data and obtain results from the variables studied. Descriptive statistics of data between independent variables (Company Size, Liquidity and Operational Efficiency) with the dependent variable (Profitability) and moderating variables (Problem Credit Risk).

Table 2. Variable data descriptive statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Profitability	150	-7.58	11.15	1.8165	2.01094
Company Size	150	1.16	24.07	12.7057	4.72167
Liquidity	150	13.24	110.88	67.9675	20.11148
Operational Efficiency	150	56.04	195.70	86.8391	18.20312
Problem Credit Risk	150	.11	9.89	3.3633	2.22503

Source : Primary Data, 2018.

Effect of company size on profitability

From the test results obtained the results of estimation parameters obtained by the Company Size variable (X_1) has a calculated t value of $-3,236 > 1,976$ and a significance of $0,001 < 0,05$, then H_0 is rejected and H_1 is accepted, which means partially firm size variables have a significant effect on profitability (appendix 1) . Thus it can be concluded that the first hypothesis is proven, namely the size of the company influences profitability

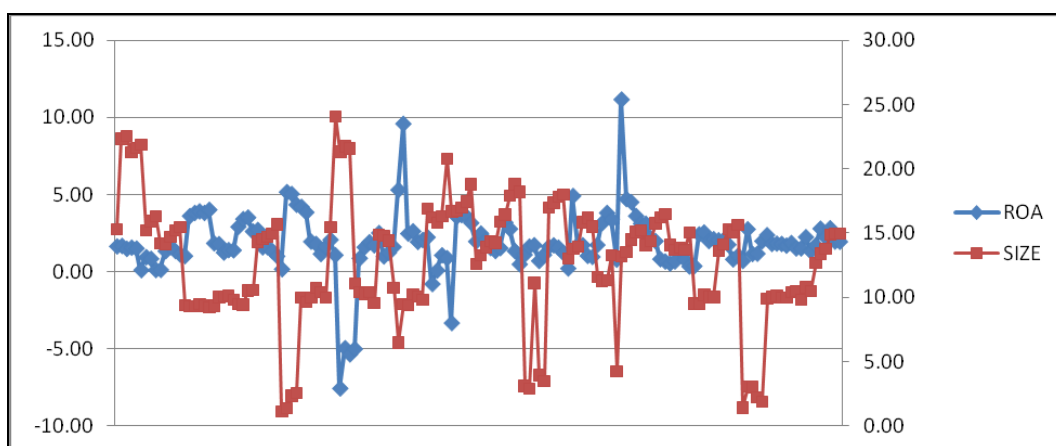


Figure 3. Data recapitulation graph company size for profitability
Source: Primary data

Companies with large assets, the use of existing resources can be used optimally and efficiently to obtain maximum business profits and companies with small assets will certainly produce profits in accordance with relatively small assets. In addition, if the number of assets owned by large companies will show the quality and good performance of the company. The larger assets owned by the company indicate the higher the profit generated.

Effect of liquidity on profitability

From the test results obtained the results of estimation parameters obtained Liquidity variable (X_2) has a calculated t value of $1.553 < 1.976$ and a significance of $0.123 > 0.05$, then H_0 is accepted and H_2 is rejected, which means that the liquidity variable does not significantly influence profitability (appendix 1). Thus it can be concluded that the second hypothesis is not proven, namely liquidity does not affect the Problem Credit Risk.

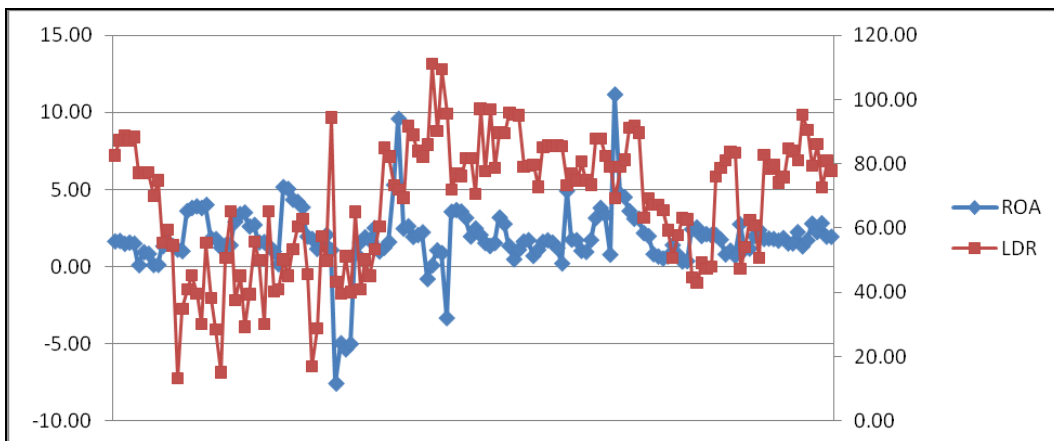


Figure 4. Data recapitulation graph liquidity towards profitability
 Source: Primary data

The average banking company has a large number of assets and assets as well as the number of long-term and short-term liabilities held. The average banking company has a high level of liquidity, but the liquidity that continues to increase will reduce the opportunity for the company to obtain large profits. The higher the level of liquidity of the company, the better the ability to repay short-term debt of the company, but too many funds are idle or not played back quickly.

Effect of operational efficiency on profitability

From the test results obtained the results of estimation parameters obtained between Operational Efficiency variables (X_3) has a t value of $-3.803 > 1.976$ and a significance of $0,000 < 0.05$, then H_0 is rejected and H_1 is accepted, which means that partially operational efficient variables have a significant effect on Profitability (appendix 1). Thus it can be concluded that the third hypothesis is proven, namely operational efficiency influences the Problem Credit Risk.

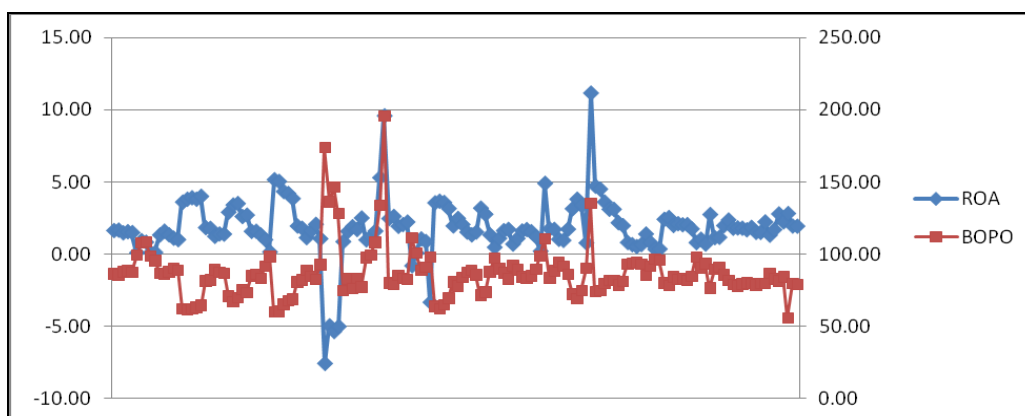


Figure 5. Data recapitulation graph operational efficiency towards profitability
 Source: Primary data

The relationship between Operational Efficiency (BOPO) and Profitability (ROA) shows that the higher the BOPO, the ROA will decrease, which means the more efficient the operational performance of a bank, the greater the profits obtained by the bank. The results of this study are in accordance with the theory according to Bank Indonesia which states that if the BOPO ratio increases, it reflects the lack of the ability of banks to reduce operating costs and increase operating income, and this can cause losses because banks are less efficient in managing their business (SE. Intern BI , 2004).

Therefore, Bank Indonesia sets the best rate for the BOPO ratio which is below 90%, because if the BOPO ratio exceeds 90% to close to 100%, the bank can be categorized as inefficient in carrying out its operations. In order for this to be achieved, banks must pay attention to cost control so that they can produce BOPO in accordance with BI regulations.

Effect of company size on profitability with problem credit risk as a moderating variable

From the test results obtained the results of estimation parameters obtained interaction variable 1 (MRA_X₁) has a value of t count of -2.021 > 1.976 and significant 0.045 < 0.05, then H₀ is rejected and H₄ is accepted, which means there is an interaction between Company Size (X₁) and Problem Credit Risk (Z) to Profitability (appendix 2). This means that Problem Credit Risk is a moderating variable of Company Size to Profitability. Thus it can be concluded that the fourth hypothesis is proven, namely the size of the company influences the Problem Credit Risk.

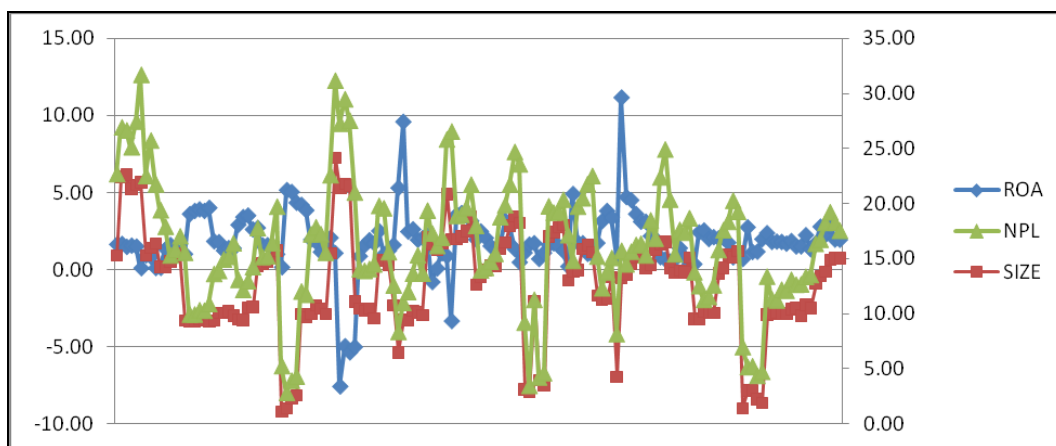


Figure 6. Data recapitulation graph company size for profitability with credit risk problems as moderating variables
 Source: Primary data

The greater the size of the banking company (SIZE) as indicated by the ownership of large total assets also has a greater opportunity to increase the risk that must be borne by the bank. This risk borne in the form of increasingly large credit distribution. This credit distribution does not result in problem credit if the composition of the funds held is sufficient. If the assets owned by the bank are not managed and used optimally for bank operations, the bank has the potential to incur greater asset management costs (Syafitri, 2011)

Effect of liquidity on profitability with problem credit risk as a moderating variable

From the test results obtained the results of estimation parameters obtained by the interaction variable 2 (MRA_X₂) has a value of t count of --3.334 > 1.976 and significant 0.001 < 0.05, then H₀ is rejected and H₅ is accepted, which means there is an interaction between Liquidity (X₂) and Problematic Credit Risk (Z) to Profitability (appendix 3). This means that Problem Credit Risk is a moderating variable of Liquidity to Profitability. Thus it can be concluded that the fifth hypothesis is proven, namely liquidity has an effect on the Problem Credit Risk.

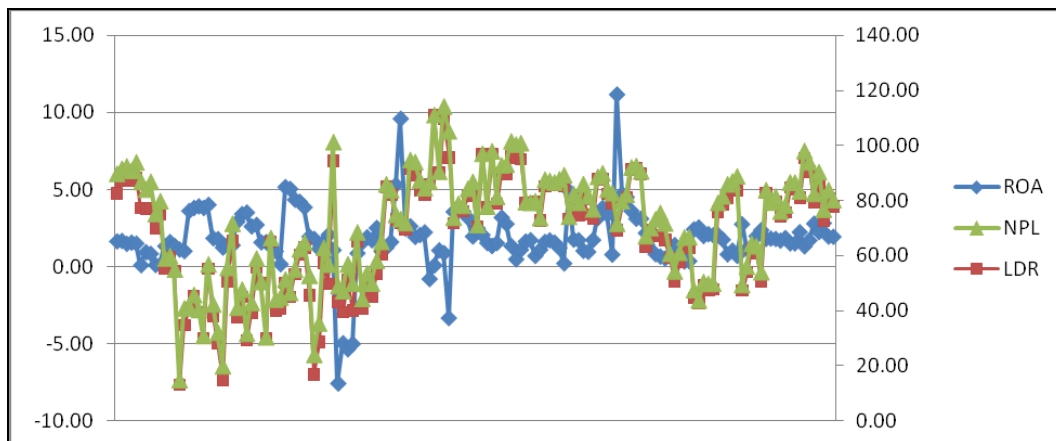


Figure 7. Data recapitulation graph liquidity to profitability with credit risk problem as moderating variable
 Source: Primary data

Effect of operational efficiency on profitability with problem credit risk as a moderating variable

From the test results obtained the results of estimation parameters obtained interaction variable 3 (MRA_X3) has a value of t count of 5.455 > 1.976 and significant 0.001 < 0.05, then H₀ is rejected and H₆ is accepted, which means there is an interaction between Efficient Operations (X₃) and Troubled Credit Risk (Z) to Profitability (appendix 4). This means that Problem Credit Risk is an Efficient Operational moderating variable to Profitability. Thus it can be concluded that the sixth hypothesis is proven, namely operational efficiency influences the Problem Credit Risk.

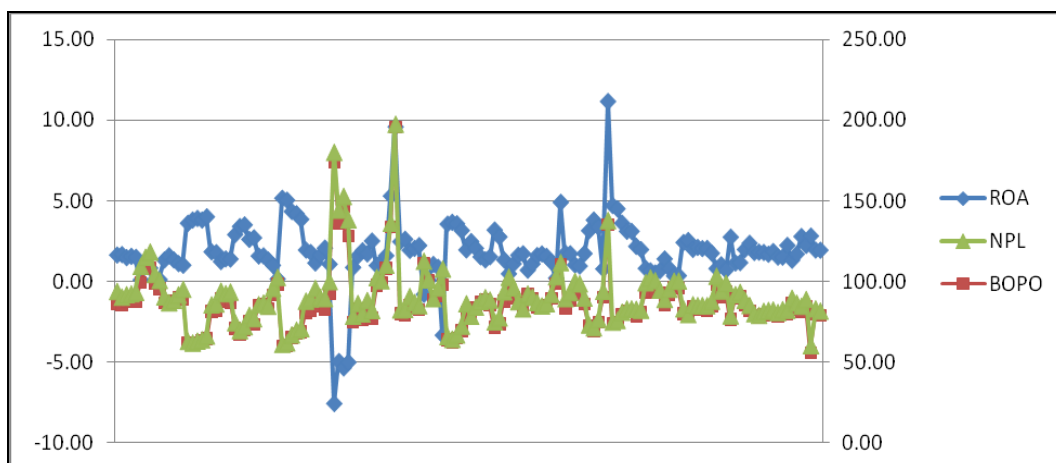


Figure 8. Data recapitulation graph operational efficiency towards profitability with problem credit risk as moderating variables
 Source: Primary data

Operational efficiency emphasizes that efficiency is achieved when transactions are carried out with minimum transaction costs. The banking industry is an industry that experiences many kinds of risks in carrying out its operations. The banking industry's operational activities result in operational costs, generate operating income and involve assets in the process. One indicator of operational banking efficiency in terms of costs is the BOPO ratio.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

There are some conclusions from the results of the analysis described earlier, the first conclusion is the size of the company has a significant effect on profitability, meaning that the larger the size of the company is followed by the increase in profitability, the second conclusion is liquidity does not have a significant effect on profitability, meaning an increase in liquidity will not be followed by increased profitability, the third conclusion is operational efficiency has an effect on profitability meaning that the smaller operational efficiency is followed by increasing profitability, the fourth conclusion is there is an interaction between company size and problem credit risk to profitability. This means that problem credit risk is a moderating variable in the size of the company against profitability, the fifth conclusion is there is an interaction between liquidity and problem credit risk to profitability. This means that problem credit risk is a moderating variable in liquidity towards profitability, the sixth conclusion is there is an interaction between operational efficiency and problem credit risks to profitability. This means that problem credit risk is a moderating variable of operational efficiency on profitability.

Recommendations

From these limitations, future researchers are advised to enter variables from external companies that can provide economic consequences, such as government changes, government policies, inflation rates, and natural disasters. Other than that, in taking samples, it can also use other types of non-financial companies such as agriculture, mining and others.

REFERENCES

- Damayanti, T. (2015). Analisis Pengaruh Governance Structure, Governancce Process dan Governance Outcome Terhadap Rasio BOPO. *Prosiding Manajemn*, 2(November), 56–63.
- Dendawijaya, L. (2015). *Manajemen Perbankan*. Jakarta: Ghalia Indonesia.
- Dewayanto, T. (2010). Governance Terhadap Kinerja Perbankan Nasional Studi pada Perusahaan Perbankan yang Terdaftar di Bursa Efek Indonesia Periode 2006-2008. *Fokus Ekonomi*, 5(2), 104–123.
- Firdausy, H. E. (2014). Pengaruh Biaya Operasional Pendapatan Operasional (Bopo) Dan *Non Performing Loan* (NPL) Terhadap *Return On Assets* (ROA) (Studi Kasus Perusahaan Perbankan Yang Terdaftar Di Bursa Efek Indonesia Periode 2012-2014), 1–12.
- Fülöp, M. T. (2013). *Correlation Analysis Of The Audit Committee And Profitability Indicators*. *Annals Of The University Of Petroşani, Economics*, 13(1), 139–148.
- Ghozali, I. (2012). Aplikasi Analisis *Multivariate* dengan *IBM SPSS 20*. Semarang: Universitas Diponegoro.
- Hamdani. (2016). *Good Corporate Governance : Tinjauan Etika dalam Praktik Bisnis*. Jakarta: Mitra Wancana Media.
- <https://www.idx.co.id>
- <https://www.merdeka.com/uang/bpk-temukan-penyimpangan-jamsostek-lebih-dari-Rp-7-triliyun>.
- Inam, H., & Mukhtar, A. (2014). *Corporate governance and its impact on performance of banking sector in Pakistan*. *International Journal of Academic Research in Applied Science*, 3(2), 26–36.

- Komite Nasional Kebijakan *Governance* (KNKG). (2006). Pedoman Umum *Good Corporate Governance* Indonesia. Jakarta. www.knkg-indonesia.org/dokumen/pedoman-GCG-Perbankan.pdf.
- Komite Nasional Kebijakan *Governance* (KNKG). (2012). Prinsip Dasar Pedoman Umum *Good Corporate Governance* Indonesia. Jakarta. www.knkg-indonesia.org.
- Narwal, K. P., & Jindal, S. (2015). *The Impact of Corporate Governance on the Profitability: An Empirical Study of Indian Textile Industry*. *International Journal of Research in Management, Science & Technology (E-ISSN: 2321-3264)*, 3(2), 81–85.
- Nurainy, R., Nurcahyo, B., A, S. K., & Sugiharti, B. (2013). *Implementation of Good Corporate Governance and Its Impact on Corporate Performance: The Mediation Role of Firm Size (Empirical Study from Indonesia)*. *Global Business and Management Research: An International Journal*, 5(2 & 3), 91–104.
- Peraturan Otoritas Jasa Keuangan No.21/PJOK.03/2015 tentang Pedoman Tata Kelola Perusahaan Terbuka.<https://www.ojk.go.id/>.
- Peraturan Otoritas Jasa Keuangan No.55/PJOK.03/2016 tentang Pedoman Tata Kelola bagi bank umum. <https://www.ojk.go.id/>.
- Prasojo. (2015). Pengaruh Penerapan *Good Corporate Governance* terhadap Kinerja Keuangan Bank Syariah. *Jurnal Dinamika Akuntansi Dan Bisnis*, 2(1), 59–69.
- Rimardhani, H., Hidayat, R. R., & Dwiatmanto. (2016). Pengaruh Mekanisme Good Corporate Governance Terhadap Profitabilitas Perusahaan (Studi Pada Perusahaan Bumn Yang Terdaftar Di Bei Tahun 2012 - 2014). *Jurnal Administrasi Bisnis (JAB)*, 31(1), 167–175.
- Sam'ani. (2008). Pengaruh *Good Corporate Governance* Dan *Leverage* Terhadap Kinerja Keuangan Pada Perbankan Yang Terdaftar Di Bursa Efek Indonesia (Bei) Tahun 2004 - 2007. *Universitas Diponegoro*.
- Shochrul, ajija R., Dyah, sari w, Rahmat, setianto H., & Martha, primanti R. (2011). *cara cerdas menguasai eviews*. Jakarta: Salemba Empat.
- Sulistyowati, & Fidiana. (2017). Pengaruh *Good Corporate Governance* Terhadap Kinerja. *Jurnal Ilmu Dan Riset Akuntansi*, 6(1), 121–137.
- Surat Edaran Bank Indonesia Nomor 13/30/DPNP pada tanggal 16 desember 2011. Prihal Perubahan ketiga atas Surat Edaran Bank Indonesia Nomor 13/24/DPNP tanggal 25 Oktober 2011 prihal penilaian tingkat kesehatan bank umum. <https://www.bi.go.id>.
- Undang - Undang Republik Indonesia Pasal 1 angka 2 Nomor 10 tahun 1998 tentang Perbankan. <https://www.hukumonline.com>
- Undang - Undang Republik Indonesia nomor 40 tahun 2007 tentang Perseroan Terbatas. <https://www.hukumonline.com>
- Van, H., James, C., & M.Jhon, W. (2005). Prinsip - Prinsip Manajemen Keuangan (Tiga belas). Jakarta: PT. Salemba Empat.
- Yantningsih, N. D., Islahuddin, & Musnadi, S. (2016). Pengaruh Penerapan *Good Corporate Governance* Terhadap *Leverage* Dan *Profitabilitas* Pada Perusahaan Perbankan Yang Terdaftar Di Bei Periode 2009-2013. *Jurnal Magister Akuntansi Pascasarjana Universitas Syiah Kuala* 11, 5(1), 79–89. <https://doi.org/ISSN 2302-0164>

APPENDIX

Appendix 1. First model hypothesis testing

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	5.199	.886		5.868	.000
Company Size (X1)	-.112	.034	-.262	-3.236	.001
Liquidity (X2)	.012	.008	.123	1.553	.123
Operational efficiency (X3)	-.032	.008	-.292	-3.803	.000

Appendix 2. MRA variable X1 test results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.476	.476		9.394	.000
Company size (X1)	-.081	.032	-.191	-2.581	.011
Problem credit risk (Z)	-.366	.067	-.405	-5.455	.000
MRA_X1	-.406	.201	-.145	-2.021	.045

Appendix 3. MRA variable X2 test results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.974	.593		6.705	.000
Liquidity (X2)	-.003	.007	-.033	-.467	.641
Problem credit risk (X3)	-.381	.065	-.421	-5.836	.000
MRA_X2	-.561	.168	-.243	-3.334	.001

Appendix 4. MRA variable X3 test results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	7.219	.735		9.826	.000
Operational efficiency (X3)	-.060	.010	-.541	-6.045	.000
Problem credit risk (Z)	-.341	.061	-.378	-5.578	.000
MRA_X3	1.120	.205	.470	5.455	.000