Kontigensi: Scientific Journal of Management
Vol 9 , No. 1, June 2021, pp. 1 - 9
ISSN 2088-4877

Influence of Operational Costs on Operating Revenue and Loan to Deposit Ratio against Return on Asset at PT. Bank Negara Indonesia, Tbk Year 2009-2019

Waluyo Jati
Universitas Pamulang, Tangerang Selatan, Banten, Indonesia
E-mail : dosen00565@unpam.ac.id

ABSTRACT

This study aims to determine the operational costs operating income (BOPO) and Loan to Deposit Ratio (LDR) on Return on Assets at PT. Bank Negara Indonesia, Tbk. The method used is explanatory research. The analysis technique uses statistical analysis with regression testing, correlation, determination and hypothesis testing. The results of this study Operational Costs Operational Income (BOPO) has a significant effect on Return on Assets by 40.7%, hypothesis testing is obtained t count> t table or (2.346> 2.262). Loan to Deposit Ratio (LDR) has a significant effect on Return on Assets of 53.9%; hypothesis testing is obtained t count> t table or (-3.056> -2.262). Operating Costs Operational Income (BOPO) and Loan to Deposit Ratio (LDR) simultaneously have a significant effect on Return on Assets, the regression equation Y = 1.565 + 0.205X1 - 0.089X2 and a determination value of 59.9%, hypothesis testing obtained the F value calculated > F table or (5,224> 4,350).

Keywords: Operational Income Operational Costs (BOPO), Loan to Deposit Ratio (LDR), Return on Assets.

INTRODUCTION

The bank is a financial institution whose main activities are collecting funds from the public, channelling funds to the public, and providing other services in the banking sector. Alternatively, a bank is an institution that acts as a financial intermediary (financial intermediary), namely an intermediary between parties who have excess funds and parties who need funds. Therefore, banks must maintain public trust by ensuring liquidity and operating effectively and efficiently to achieve their goals. From this, it can be seen that the banking sector has a vital role as the main driver of economic growth in Indonesia. The health and stability of banks will significantly affect the ebb and flow of an economy.

Financial statement analysis is a form that can be used to assess a bank's performance whether the bank is in good condition or not. Various analyses can be carried out to determine this condition, and one of them is ratio analysis. Financial ratio analysis requires financial reports of at least 2 (two) years from the company's operation to be compared. Financial ratio analysis will determine what kind of condition the bank's financial performance is. In the financial statements, we can assess a bank's financial performance by seeing how much operational efficiency is related to banking operations. Operational efficiency is a complex problem where every banking company always strives to provide the best service to customers, but at the same time, the bank must strive to operate efficiently (Veithzal et al.2007). In measuring operational efficiency, the Operating Costs ratio to Operating Income (BOPO) can be used. According to Veithzal et al. (2007: 722), the BOPO ratio compares operating costs and operating income in measuring the level of efficiency and the bank's ability to carry out its operations.

Considering that the main activity is to act as an intermediary, namely to collect and channel public funds, the bank's operating costs and income are dominated by interest costs and interest yields. This BOPO ratio aims to measure the ability to use the revenue to cover operational costs. In the BI Internal Circular Letter (2004), The increasing ratio reflects a bank's inability to reduce operating costs and increase its operating income, resulting in losses because banks are less efficient in managing their business. The greater the BOPO, the smaller or decrease the financial performance of banks. Likewise, if the BOPO is getting smaller, it can be concluded that a company's financial performance (banking) is increasing or improving (Slamet Riyadi, 2006: 159).

Table 1. Growth of BOPO, LDR and ROA of PT. Bank BNI, Tbk Year 2009-2019

Year	BOPO (%)	LDR (%)	ROA (%)
2009	65.85	70.75	8.56
2010	64.16	77.91	7.72
2011	61.2	85.87	6.26
2012	61.46	91.44	4.66
2013	61.82	88.04	5.71
2014	67.22	85.78	7.78
2015	61.78	87.55	8.45
2016	63.54	73.32	9.26
2017	66.79	74.75	8.91
2018	65.62	61.57	8.75
2019	63.94	79.70	7.61
Average	65.85	70.75	8.56

The BOPO chart at PT. Bank BNI 2009-2019 above shows that the BOPO has fluctuated from year to year with an average growth reaching 65.85. Based on the provisions of Bank Indonesia, the BOPO limit is ≤ 94%. If the BOPO ratio generated by a bank exceeds 94%, it can be said that the bank is not yet efficient in carrying out its operations. If the BOPO ratio is efficient, the bank performs well because its profits will be more significant. After all, the bank's operating costs are getting smaller.

The bank financial performance assessment can also be seen from the LDR (Loan to Deposit Ratio) figures. Less than optimal credit growth can be reflected in the LDR. The LDR ratio is the ratio between total loans extended to total third party funds (TPF) that banks can collect. The LDR will show the level of the bank's ability to channel third party funds collected by the bank concerned. (Slamet Riyadi: 2006: 195).

According to Lukman Dendawijaya (2009: 116), the Loan to Deposit Ratio (LDR) ratio is the amount of credit provided by a bank and the bank's funds. Loan to Deposit Ratio (LDR) is a ratio that measures bank liquidity in fulfilling funds withdrawn by the public in the form of savings, time deposits and demand deposits. (Kasmir, 2012: 319).

Whether we admit it or not, in the banking business, the main business is credit. The more recognition a bank provides to the public, the more profitable the bank will be. Logically, many people borrow funds, both for business capital and consumption, so when making payments to them, they are subject to interest; this interest then becomes an advantage for the bank. The

LDR chart of PT. Bank BNI 2009-2019 above shows that the LDR data fluctuates with an average of 70.75%. Based on the provisions of Bank Indonesia, the LDR limit is ≤ 75%. If the LDR ratio generated by a bank exceeds 75%, it can be said that it is less effective in channelling its credit funds.

Based on the explanation above, the author is interested in researching "Analysis of Calculation of OEOI and LDR as a Measure of Financial Performance (Case at PT. Bank Negara Indonesia, Tbk)"

LITERATURE REVIEW

1. Operating Expenses Operating Income (BOPO)

According to Veithzal et al. (2007: 722), the BOPO ratio compares operating costs and operating income in measuring the level of efficiency and the bank's ability to carry out its operations.

2. Loan to Deposit Ratio (LDR)

According to Slamet Riyadi (2006: 195), the LDR ratio is the ratio between the total loans granted to the entire third party funds (DPK) that the bank can collect.

3. Return on Asset

The bank's financial performance is one of the bases for assessing its ability to carry out its function as a fund collector and public fund manager. In this case, the company's profit is measured by ROA.

METHOD

1. Population

The population in this study based on financial reports for ten years PT. Bank Negara Indonesia, Tbk

2. Sample

This study's sampling technique was a saturated sample, where all members of the population were sampled. Thus the model in this study financial statements for ten years.

3. Types of research

The type of research used is associative, where the aim is to find out how to find the relationship between the independent variables and the dependent variable

4. Data analysis method

The classical assumption test, regression, correlation coefficient, determination coefficient, and hypothesis test were used in analysing the data, either partially or simultaneously.

RESULT and DICUSSION

1. Descriptive Analysis

This test is used to determine the minimum and maximum percentage, average percentage, and standard deviation of each variable. The results are as follows:

Table 2. Results of Descriptive Statistics Analysis

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
BOPO (X1)	10	61.20	67.22	63.9440	2.31847
LDR (X2)	10	61.57	91.44	79.6980	9.55249
ROA (Y)	10	4.66	9.26	7.6060	1,54546
Valid N (listwise)	10				

Operating Costs Operating Income (BOPO) obtained a minimum percentage value of 61.20% and a maximum percentage value of 67.22% with an average of 63.94% with a standard deviation of 2.31%. The Loan to Deposit Ratio (LDR) obtained a minimum percentage value of 61.57% and a maximum percentage value of 91.44.0%, with an average value of 79.69% with a standard deviation 9.55%. Return on Asset obtained a minimum percentage value of 4.66% and a maximum percentage value of 9.26% with an average of 7.60% with a standard deviation of 1.54%.

2. **Quantitative Analysis.**
   This analysis aims to determine the effect of the independent variable on the dependent variable. The test results are as follows:

a. **Multiple Linear Regression Analysis**
   This regression test is intended to determine changes in the dependent variable if the independent variable changes. The test results are as follows:

Table 3. Multiple Linear Regression Test Results

Coefficients[a]

Model		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,565	15,443		.101	.922
	BOPO (X1)	.205	.200	.308	1,025	.340
	LDR (X2)	-.089	.049	-.548	-1,827	.110

a. Dependent Variable: ROA (Y)

Based on the test results in the table above, the regression equation Y = 1.565 + 0.205X1 - 0.089X2 is obtained. From this equation, it is explained as follows:

1) A constant of 1.565 means that if the Operational Cost of Operating Income (BOPO) and the Loan to Deposit Ratio (LDR) do not exist, then there is a Return on Asset value 1.565 points.

2) The regression coefficient for Operational Revenue for Operating Income (BOPO) is 0.205; this number is positive, meaning that every time there is an increase in Operating Costs for Operating Income (BOPO) 0.205, Return on Assets will also increase by 0.205 points.

3) The Loan to Deposit Ratio (LDR) regression coefficient is -0.089; this number is negative, meaning that every time there is an increase in the Loan to Deposit Ratio (LDR) of 0.089, the Return on Assets will also decrease by -0.089 points.

b. **Correlation Coefficient Analysis**

Correlation coefficient analysis is intended to determine the level of strength of the relationship between the independent variable and the dependent variable either partially or simultaneously. The test results are as follows:

Table 4. The Results of Testing the Correlation Coefficient of Operational Income Operating Costs (BOPO) Against Return on Assets.

Correlations[b]

		BOPO (X1)	ROA (Y)
BOPO (X1)	Pearson Correlation	1	.638 *
	Sig. (2-tailed)		.047
ROA (Y)	Pearson Correlation	.638 *	1
	Sig. (2-tailed)	.047	

*. Correlation is significant at the 0.05 level (2-tailed).
b. Listwise N = 10

The test results obtained a correlation value of 0.638, which means that Operational Cost of Operating Income (BOPO) has a strong relationship with Return on Assets.

Table 5. Testing Results of the Loan to Deposit Ratio (LDR) Correlation Coefficient against Return on Assets.

Correlations[b]

		LDR (X2)	ROA (Y)
LDR (X2)	Pearson Correlation	1	-734 *
	Sig. (2-tailed)		.016
ROA (Y)	Pearson Correlation	-734 *	1
	Sig. (2-tailed)	.016	

*. Correlation is significant at the 0.05 level (2-tailed).
b. Listwise N = 10

The test results obtained a correlation value of -0.734 means that the Loan to Deposit Ratio (LDR) has a strong negative relationship to Return on Assets.

Table 6. Testing Results of the Correlation Coefficient of Operational Costs of Operating Income (BOPO) and Loan to Deposit Ratio (LDR) simultaneously on Return on Assets.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774a	.599	.484	1.10996

a. Predictors: (Constant), LDR (X2), BOPO (X1)

Based on the test results, a correlation value of 0.744 means that the Operational Cost of Operating Income (BOPO) and the Loan to Deposit Ratio (LDR) simultaneously have a strong relationship.

c. Analysis of the coefficient of determination

The coefficient of determination is intended to determine the independent variable's influence on the dependent variable either partially or simultaneously. The test results are as follows:

Table 7. Results of Testing the Coefficient of Determination of Operational Costs of Operating Income (BOPO) on Return on Assets.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.638a	.407	.333	1.26178

a. Predictors: (Constant), BOPO (X1)

The test results obtained a determination value of 0.407, which means that the Operational Cost of Operating Income (BOPO) influenced 40.7% to Return on Assets.

Table 8. Testing the Coefficient of Determination of the Loan to Deposit Ratio (LDR) on Return on Assets.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.734a	.539	.481	1.11345

a. Predictors: (Constant), LDR (X2)

Based on the test results, it was found that the determination value was 0.539, meaning that the Loan to Deposit Ratio (LDR) had an effect of 53.9% on Return on Assets.

Table 9. Results of Testing the Coefficient of Determination of Operational Costs of Operating Income (BOPO) and Loan to Deposit Ratio (LDR) of Return on Assets.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774a	.599	.484	1.10996

a. Predictors: (Constant), LDR (X2), BOPO (X1)

The test results obtained a determination value of 0.599, which means that the Operational Cost of Operating Income (BOPO) and the Loan to Deposit Ratio (LDR) simultaneously contributed 59.9% to the Return on Assets. In comparison, other factors influenced the remaining 44.1%.

d. Hypothesis testing

Partial hypothesis test (t-test)

Hypothesis testing with the t-test is used to determine which partial hypothesis is accepted. Testing can also be done by comparing the significance value with Sig. 0.05. The test results are as follows: First Hypothesis: There is a significant influence between Operating Costs Operating Income (BOPO) on Return on Assets. Second Hypothesis: There is a powerful influence between the Loan to Deposit Ratio (LDR) on Return on Assets.

Table 10. Hypothesis Test Results of Operational Income Operating Costs (BOPO) Against Return on Assets.

Coefficientsa

Model		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-19,603	11,607		-1,689	.130
	BOPO (X1)	.426	.181	.638	2,346	.047

a. Dependent Variable: ROA (Y)

Based on the test results in the table above, the value of t arithmetic> t table or (2.346> 2.262) is obtained; thus, there is a significant influence between Operating Expenses for Operating Income (BOPO) on Return on Assets.

Table 11. Results of the Loan to Deposit Ratio (LDR) Hypothesis Test on Return on Assets.

Coefficients[a]

Model		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	17,069	3,117		5,477	.001
	LDR (X2)	-119	.039	-734	-3,056	.016

a. Dependent Variable: ROA (Y)

Based on the test results in the table above, the value of t count> t table or (-3,056> -2,262) is obtained; thus, there is a significant adverse effect between the Loan to Deposit Ratio (LDR) on Return on Assets.

Simultaneous Hypothesis Test (Test F)
Hypothesis testing with the F test is used to determine which simultaneous hypothesis is accepted. Testing can also be done by comparing the significance value with Sig. 0.05. The test results are as follows: Third Hypothesis: There is a significant influence between Operational Cost of Operating Income (BOPO) and Loan to Deposit Ratio (LDR) on Return on Assets.

Table 12. Hypothesis Test Results Operational Income Operational Costs (BOPO) and Loan to Deposit Ratio (LDR) Against Return on Assets.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12,872	2	6,436	5,224	.041b
	Residual	8,624	7	1,232		
	Total	21,496	9			

a. Dependent Variable: ROA (Y)
b. Predictors: (Constant), LDR (X2), BOPO (X1)

Based on the test results in the table above, the calculated F value> F table or (5,224> 4,350) is obtained; thus, there is a significant influence between Operational Cost of Operating Income (BOPO) and Loan to Deposit Ratio (LDR) on Return on Assets.

DISCUSSION OF RESEARCH RESULTS

1. **The Influence of Operating Costs Operating Income (BOPO) on Return on Assets**

   Operational Costs Operational Income (BOPO) has a significant effect on Return on Assets with a correlation of 0.638 or has a strong relationship with an influential contribution of 40.7%. Hypothesis testing obtained the value of t count> t table or (2.346> 2.262). Thus, there is a significant influence between Operating Costs and Operating Income (BOPO) on Return on Assets.

2. **The Effect of Loan to Deposit Ratio (LDR) on Return on Assets**

   Loan to Deposit Ratio (LDR) has a significant effect on Return on Assets with a correlation of -0.734 or has a strong negative relationship with an influential contribution of 53.9%. Hypothesis testing obtained t value> t table or (-3.056> -2.262). Thus, there is a significant negative effect between the Loan to Deposit Ratio (LDR) on Return on Assets.

3. **The Effect of Operating Costs Operating Income (BOPO) and Loan to Deposit Ratio (LDR) on Return on Assets**

   Operational Costs Operational Income (BOPO) and Loan to Deposit Ratio (LDR) have a significant effect on Return on Assets by obtaining the regression equation Y = 1.565 + 0.205X1 + -0.089X2, the correlation value is 0.744 or has a strong relationship with an influential contribution of 59, 9%. In comparison, other factors influence the remaining 44.1%. Hypothesis testing obtained the value of F count> F table or (5,224> 4,350). Thus, there is a significant influence between Operational Cost of Operating Income (BOPO) and Loan to Deposit Ratio (LDR) on Return on Assets.

CONCLUSION

1. **Conclusion**

   Based on the results of the calculations and discussion above, it is concluded as follows:

a. Operational Costs Operational Income (BOPO) has a significant effect on Return on Assets with a contribution of influence of 40.7%. Hypothesis test obtained t value> t table or (2.346> 2.262).
b. Loan to Deposit Ratio (LDR) has a significant effect on Return on Assets with an effective contribution of 53.9%. Hypothesis test obtained t value> t table or (-3.056> -2.262).
c. Operational Costs Operational Income (BOPO) and Loan to Deposit Ratio (LDR) significantly affect Return on Assets with an impact contribution of 59.9%, while other factors influence the remaining 44.1%. Hypothesis testing obtained the value of F count> F table or (5,224> 4,350).

2. **Suggestion**

Based on the results of the conclusions described above, the authors provide the following suggestions

a. In terms of the BOPO ratio, namely PT. Bank Negara Indonesia, Tbk must maintain or try to be more efficient in using operational costs. It is suggested that other Bank Negara Indonesia service products should also be introduced, such as insurance service products, so that PT. Bank Negara Indonesia can continue to improve so that financial performance is based on the results of the BOPO ratio of PT. Bank Negara Indonesia, Tbk in the following years still received perfect scores.

b. In terms of the LDR ratio, namely PT. Bank Negara Indonesia, Tbk must be more selective in choosing prospective creditors (every credit application received must be carefully analysed for credit to assess whether the credit is given). Also, PT. Bank Negara Indonesia, Tbk must conduct frequent evaluations to determine the condition of its bank liquidity, and additional guarantees or prerequisites are required to be submitted to prospective creditors at the time of credit application. These things need to be done to minimise the risks that can occur, where the possible dangers that can happen, namely if many creditors are not smooth and are not on time to pay their debt instalments, PT. Bank Negara Indonesia, Tbk may experience a lack of funds when customers want to withdraw their money so that it can affect the credibility of PT.

REFERENCES

Dendawijaya, Lukman. "*Manajemen Perbankan",* Edisi Kedua, Cetakan Kedua, Ghalia Indonesia, Jakarta, 2009.

Fahmi, Irham. *Manajemen Kinerja Teori dan Aplikasi*", Cetakan Pertama, Afabeta, Bandung, 2010.

Handoko, T. Hani. "*Manajemen Personalia dan Sumber Daya Manusia*", BPFE, Yogyakarta, 2008.

Haque, M. G., Nurjaya, N.,Affandi, A., Erlangga, H., & Sunarsi, D. (2021). Micro Financial Sharia Non-bank Strategic Analysis: a Study at BMT Beringharjo, Yogyakarta. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, *4*(2), 1677-1686.

Harjito, Agus dan Martono. "*Manajemen Keuangan*", Edisi Kedua, Cetakan Kedua, Ekonisia, Yogyakarta, 2014.

Jasmani, J. (2019). *The Effect of Liquidity and Working Capital Turnover on Profitability at PT. Sumber Cipta Multiniaga, South Jakarta. PINISI Discretion Review*, *3*(1), 29-38.

Kasmir, "*Bank dan Lembaga Keuangan lainnya"*, Edisi Revisi, Cetakan ketujuhbelas, Rajawali Pers, Jakarta, 2016.

Manurung, Mandala dan Prathama Rahardja. "*Uang, Perbankan dan Ekonomi Moneter*", Fakultas Ekonomi Universitas Indonesia, 2004.

Munawir, S. "*Analisis Laporan Keuangan*", Edisi keempat, Cetakan Kelima Belas, Liberty, Yogyakarta, 2014.

Muslimat, A., Muhsin, H., Wahid, H. A., Yulistiana, I., Sunarsi, D., Dewi, K., ... & Ilham, D. (2021). Develop Technology Based Multimedia For Indonesian

Teachers. *Journal of Contemporary Issues in Business and Government*, *27*(1), 1871-1882.

Noryani, Y. B. G., Sari, W. I., Rosini, I., Munadjat, B., Sunarsi, D., & Mahnun Mas' adi, G. (2020). Did ISO 45001, ISO 22000, ISO 14001 and ISO 9001 Influence Financial Performance? Evidence from Indonesian Industries. *PalArch's Journal of Archaeology of Egypt/Egyptology*, *17*(7), 6930-6950.

Nurjaya, N., Affandi, A., Ilham, D., Jasmani, J., & Sunarsi, D. (2021). Pengaruh Kompetensi Sumber Daya Manusia Dan Kemampuan Pemanfaatan Teknologi Terhadap Kinerja Aparatur Desa Pada Kantor Kepala Desa Di Kabupaten Gunungkidul, Yogyakarta. *JENIUS (Jurnal Ilmiah Manajemen Sumber Daya Manusia)*, *4*(3), 332-346.

Pujiati, H., Sunarsi, D., Affandi, A., & Anggraeni, N. (2021). Effect of ISO 9001: 2015 Quality Management Implementation in Education on School Performance. *Journal of Contemporary Issues in Business and Government*, *27*(1), 1848-1855.

Purwanti, Y. (2021). The Influence Of Digital Marketing & Innovasion On The School Performance. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, *12*(7), 118-127.

Rivai dkk, Veithzal. "*Bank and Financial Institution Management: Conventional and Sharia System*", PT. Raja Grafindo Persada, Jakarta, 2007.

Riyadi, Slamet. "*Banking Assets and Liability Management"*, Edisi Ketiga, Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia, Jakarta, 2006.

Robbins, Stephen dan Mary Coulter, "*Manajemen*", PT Indeks, Jakarta, 2007

Samryn, L.M. "*Pengantar Akuntansi*", Edisi Revisi, Buku Satu, PT. Raja Grafindo Persada, Jakarta, 2012.

Solihin, Ismail. "*Pengantar Manajemen*", Erlangga, Jakarta, 2009.

Suciati, Wulan. "*Analisis Rasio Rentabilitas Sebagai Alat Ukur Kinerja Keuangan Pada PT. Bank Central Asia, Tbk*, Universitas Pamulang, 2013.

Sunarsi, D. (2018). Pengaruh Gaya Kepemimpinan dan Disiplin Kerja Terhadap Kinerja Karyawan Pada CV. Usaha Mandiri Jakarta. *JENIUS (Jurnal Ilmiah Manajemen Sumber Daya Manusia)*, *1*(2).

Sutrisno. "*Manajemen Keuangan Teori Konsep dan Aplikasi*", Cetakan Kesembilan, Ekonisia, Yogyakarta, 2013.

Triandaru, Sigit dan Totok Budisantoso. "*Bank dan Lemabaga Keuangan Lain*", Salemba Empat, Jakarta, 2006.