

# Identification of Southeast Asian Banking Performance

Widhian Hardiyanti

Economic & Business Faculty Stikubank University  
Semarang, Indonesia  
widhian@edu.unisbank.ac.id

Bogy Febriatmoko

Economic & Business Faculty Stikubank University  
Semarang, Indonesia  
bogy@edu.unisbank.ac.id

Sartika Wulandari

Economic & Business Faculty Stikubank University  
Semarang, Indonesia  
sartika\_wulan@edu.unisbank.ac.id

Muhammad Ali Ma'sum

Economic & Business Faculty Stikubank University  
Semarang, Indonesia  
ma'sum@edu.unisbank.ac.id

**Abstract:** Economic growth in Southeast Asia in recent years has shown good results. One of the important sectors to support the economy of a region is the banking sector. With the optimal performance of the banking sector, internal risks can be controlled and banks are resistant to external situations so that they can run their business in a sustainable manner. This study compares the performance of the financial statements of banks in Southeast Asia, namely Indonesia, Thailand and Philippines. This research using Kruskal Wallis statistical test and Post Hoc test with Mann Whitney by four banking performance measurement tools. Four measures of banking performance are used, namely: CAR, NPL, OEI and LDR. The results showed that the test results on the four financial performance indicators, namely CAR, NPL, OEI, and LDR, showed significant results. This means that the average performance of the best banks in Indonesia, Thailand and Philippines shows significant differences in the four performance indicators, that is the CAR, NPL, OEI and LDR. This shows that the four hypotheses which state that there are differences in the average performance of the best banks in Indonesia, Thailand and the Philippines are significantly supported. Meanwhile, the results of further tests with Mann Whitney between the performance of Bank BMRI Indonesia and SCB Thailand show that the average performance is significantly different in terms of OEI and LDR while CAR and NPL are not significantly different. Post Hoc Mann Whitney test between the performance of Bank BMRI Indonesia and BDO Philippines shows that the average performance is significantly different for NPL, OEI, and LDR indicators while CAR does not differ significantly.

**Keywords:** bank financial performance, financial ratio, CAR, NPL, OEI, LDR

## I. INTRODUCTION

Economic growth is a topic that is always interesting to continue to be researched. Economic growth in Southeast Asia in recent years has shown good results. One of the important sectors to support the economy of a region is the banking sector. This research is a continuation of previous research conducted by Susanto Wibowo (2016). We see that this theme is still very likely to be studied from various aspects. The identification of problems in this study cannot be separated from previous research by Susanto Wibowo (2016), the difference is that we use data for the latest period, namely

2015, 2016, 2017, 2018, 2019 and simplify some of the previous variables, here the variable used is the Capital Adequacy Ratio. (CAR), Non Performing Loans (NPL), Operational Costs to Operating Income (BOPO), Loan to Deposit Ratio (LDR). The purpose and problem formulation of this study are different variables compared to previous studies to analyze whether there is a significant difference in the financial performance of Bank Mandiri Tbk in Indonesia with Siam Commercial Bank in Thailand and Banco de Oro Unibank in Philippines with the variables is the Capital Adequacy Ratio, Non Performing Loans, Operating Costs to Operating Income, Loan to Deposit Ratio.

## II. METHODS

### A. Research Hypotheses

Based on the existing problems and thoughts, the hypotheses used in this study are as follows:  
Capital Risk Indicator (Capital Risk)

In this study, capital adequacy will be evaluated using [1]  
Capital Adequacy Ratio (CAR) = Equity Capital divided by Total Loans and Securities. A high CAR indicates that the bank is capable of financing operational activities and contributes significantly to profitability [2]. The results of research conducted by Paudel and Khanal (2015) [3], they explore that the capital adequacy ratio is a measure that has a significant effect on evaluating the level of bank performance.

H1: There is a significant difference from the Capital Risk indicator on banking performance between Indonesia and Thailand and the Philippines.

H2: There is a significant difference from the Assets quality indicator on banking performance

H3: There is a significant difference in operating efficiency indicators in banking performance between Indonesia and Thailand and the Philippines.

H4: There is a significant difference in the Liquidity risk indicator on banking performance between Indonesia and Thailand and the Philippines.

### B. Data Resource

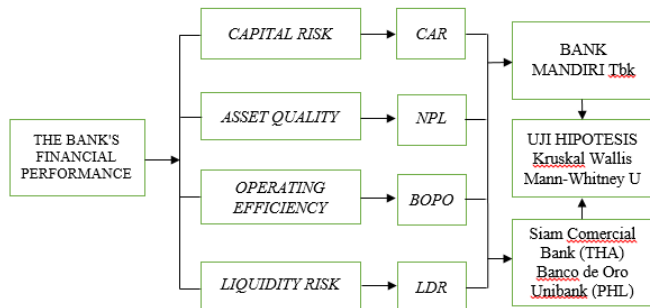
The data used in this study are historical data obtained from the Indonesian banking directory which is published to

the public. Issued by Bank Indonesia and published by the Indonesia Stock Exchange for Bank Mandiri Indonesia Tbk., Siam Commercial Bank for Thailand and Banco de Oro Unibank Philippine at their website address. The data periods used are 2015, 2016, 2017, 2018, 2019.

### C. Theoretical Thinking Pattern

The following is the flow of the theoretical mindset of research to analyze the banking performance of Bank Mandiri in Indonesia with Siam Commercial Bank in Thailand and Banco de Oro Unibank in the Philippines:

Figure 1. Flow of The Theoretical Research



The flow of the theoretical mindset of research on banking financial performance of Bank Mandiri, Siam Commercial Bank and Banco de Oro Unibank, which is proxied by financial variables, namely: variable capital risk, asset quality, operating efficiency, and liquidity risk.

For measurement, the ratio is used according to the indicators assessed, namely: Capital Adequacy Ratio (CAR), Non-Performing Loans ratio (NPL), Employee Expenses to Assets (BOPO), Loan to Deposit Ratio (LDR). Furthermore, these variables are compared between the banks of Bank Mandiri, Bank Mandiri, Siam Commercial Bank and Banco de Oro Unibank.

## III. RESULT AND DISCUSSION

### A. Result

TABLE 1. Description of Performance Indicator Data for Bank BMRI Indonesia, SCB Thailand and BDO Filipina

Indikator	BMRI Indonesia		SCB Thailand		BDO Filipina	
	N	Means (%)	N	Means (%)	N	Means (%)
CAR	5	10,20	5	10	5	3,8
NPL	5	10,20	5	10,8	5	3
BOPO	5	13	5	3	5	13
LDR	4	7	5	12	5	3

Source: Data processed, 2020

Table 1 illustrates that in all indicators of banking financial performance in the three countries there are differences. The highest CAR ratio is owned by the Bank by BMRI Indonesia while the lowest is owned by BDO Philippines. The highest NPL ratio is owned by SCB Thailand

while the lowest is owned by BDO Philippines. The highest BOPO ratio is owned by Indonesia and the Philippines, while the lowest is owned by SCB Thailand. The highest LDR is owned by BMRI Indonesia and BDO Philippines, while the lowest is owned by SCB Thailand.

TABLE 2. Kruskall Wallis Difference Test Performance of Bank BMRI Indonesia, SCB Thailand and BDO Philippines

	CAR	NPL	BOPO	LDR
Chi-Square	6.632	9.488	12.500	10.646
Df	2	2	2	2
Asymp. Sig.	.036	.009	.002	.005

Source: Data processed, 2020

The test results on the four financial performance indicators, namely CAR, NPL, BOPO, and LDR show significant results. This means that the average performance of the best banks in Indonesia, Thailand and the Philippines shows a significant difference in the four performance indicators, namely CAR, NPL, BOPO and LDR. This shows that the four hypotheses which state that there are differences in the average performance of the best banks in Indonesia, Thailand and the Philippines are significantly supported.

TABLE 3. Post Hoc test with Mann Whitney between the performance of Bank BMRI Indonesia and SCB Thailand

	CAR	NPL	BOPO	LDR
Mann-Whitney U	10.000	11.000	.000	.000
Wilcoxon W	25.000	26.000	15.000	10.000
Z	-.524	-.313	-2.611	-2.449
Asymp. Sig. (2-tailed)	.600	.754	.009	.014

Source: Data processed, 2020

Table 3 shows that the average performance of BMRI Indonesia and SCB Thailand banks is significantly different in terms of BOPO and LDR, while CAR and NPL do not differ significantly.

Table 4. Mann Whitney Post Hoc Test between the performance of Bank BMRI Indonesia and BDO Philippines

	CAR	NPL	BOPO	LDR
Mann-Whitney U	4.000	.000	.000	2.000
Wilcoxon W	19.000	15.000	15.000	17.000
Z	-1.776	-2.643	-2.611	-1.960
Asymp. Sig. (2-tailed)	.076	.008	.009	.050

Source: Data processed, 2020

Table 4 shows that the average performance of Indonesian BMRI and BDO Philippine banks is significantly different for the NPL, BOPO and LDR indicators, while CAR does not differ significantly.

TABLE 5. Mann Whitney Post Hoc Test between the performance of Bank SCB Thailand and BDO Philippines

	CAR	NPL	BOPO	LDR
Mann-Whitney U	.000	.000	.000	.000
Wilcoxon W	15.000	15.000	15.000	15.000
Z	-2.619	-2.643	-2.611	-2.611
Asymp. Sig. (2-tailed)	.009	0.008	.008	.009

Source: Data processed, 2020

Table 5 shows that the average performance of Bank SCB Thailand and BDO Philippines is significantly different for all performance indicators.

## B. Discussion

### Capital Risk

The Kruskal Walls test results show that there is a significant difference in the Capital Risk indicator Capital Adquancy Ratio (CAR) variable on banking performance between Indonesia and Thailand and the Philippines. The Kruskal Walls test value, CAR (0.036 <0.05) of the three countries has a significantly different average CAR, thus H1 is accepted. While the results of the Post Hoc Mann Whitney test for Indonesia and Thailand, there is no significant difference in the CAR value, as well as for Indonesia and the Philippines, there is no significant difference in CAR. Thus, the simultaneous testing of CARs from the three countries is different, but partially there is no difference in capital risk between Indonesia and Thailand and the Philippines.

Meanwhile, for the average CAR ratio, the highest value is BMRI Indonesia at 10.2. This proves that in terms of capital (CAR) for Indonesia is better when compared to Thailand and the Philippines. Because the higher the CAR value, the stronger the bank's capital is so that it is able to channel credit to those who need it. And banks can expand and expand their business networks. So it can be concluded that a bank with a high CAR will have a greater capacity to minimize risk and be better able to expand.

### Assets Quality

The Kruskal Walls test results show that there is a significant difference between the Assets Quality and the Non Performing Loan (NPL) indicator in banking performance between Indonesia and Thailand and the Philippines. The Kruskal Walls test score, NPL (0.009 <0.05) of the three countries had a significantly different average NPL, thus H2 was accepted. For the Mann Whitney Post Hoc test results for Indonesia and Thailand, there is no significant difference in the NPL value, while for Indonesia and the Philippines, there is a significant difference in NPL. Thus, the simultaneous testing of NPLs from the three countries is different, but partially there is no difference in asset quality between Indonesia and Thailand.

Meanwhile, for the average NPL ratio, the highest score is in SCB Thailand at 10.8 and the lowest is in the Philippines at 3. This proves that in terms of asset quality (NPL) for the Philippines it is better than the two other countries. The NPL

at SCB Thailand bank shows a high number, so it can be said that the bank needs to pay attention and a strategy to deal with this. NPL also reflects credit risk, the higher the NPL value, the higher the credit value that must be borne by the Bank [4]. The opposite is true in the Philippine BDO bank with an NPL value of 3 percent. It is hoped that the process of providing and managing good credit can reduce NPLs to a minimum. In other words, NPLs are strongly influenced by the ability of banks to carry out the process of providing credit properly and in terms of credit management, including monitoring action after credit is disbursed and control measures if there are indications of credit irregularities or indications of default [5].

### Operating Efficiency

The results of the Kruskal Walls operating efficiency test with the Operational Cost to Operating Income (BOPO) indicator show that there are significant differences in banking performance between Indonesia and Thailand and the Philippines. The Kruskal Walls test score, BOPO (0.002 <0.05) of the three countries had a significantly different average NPL, thus H3 was accepted. For the Mann Whitney Post Hoc test results for Indonesia, Thailand, and the Philippines, the BOPO value is a significant difference. Thus, simultaneous testing of OEOIs from three different countries, as well as partially there are differences in operational efficiency between Indonesia, Thailand and the Philippines.

Meanwhile, for the BOPO average, Indonesia and the Philippines have the same value, namely 13 percent, while Thailand's average BOPO value is 3 percent. The increasing ratio reflects a bank's lack of ability to reduce operating costs and increase its operating income, which can cause losses because banks are less efficient in managing their business. Thus descriptively the operational efficiency of SCB Thailand is better than the other two countries.

### Liquidity Risk

The results of the Kruskal Walls liquidity risk test with the Loan to Deposit Ratio (LDR) indicator show that there are significant differences in banking performance between Indonesia and Thailand and the Philippines. The Kruskal Walls test value, LDR (0.005 <0.05) of the three countries had a significantly different average NPL, thus H4 was accepted. For the Mann Whitney Post Hoc test results for Indonesia, Thailand, and the Philippines, the LDR value is a significant difference. Thus, the simultaneous LDR testing of the three countries is different, as well as partially there are differences in operational efficiency between Indonesia, Thailand and the Philippines.

Meanwhile, Indonesia's average LDR is 7 percent, the Philippines has a value of 12 percent, while Thailand's average LDR is 3 percent or the lowest. So that, descriptively, the SCB Thailand bank is not good because of its low liquidity value. According to Lukman Dendawijaya (2009) [6], the LDR states how far the bank's ability to repay depositors' withdrawals by relying on credit provided as a source of liquidity. So descriptively BDO Philippines can perform well in its ability to repay depositors' withdrawals by relying on credit as a source of liquidity.

#### IV. CONCLUSION

1. There is a significant difference in the Capital Risk indicator Capital Adquancy Ratio (CAR) variable on banking performance between Indonesia and Thailand and the Philippines. The highest CAR value is in BMRI Indonesia at 10.2 percent, a bank with a high CAR will have a greater capacity to minimize risk as well as be more capable of expansion.
2. There is a significant difference between the Assets Quality and the Non Performing Loan (NPL) indicator in banking performance between Indonesia and Thailand and the Philippines. The lowest average NPL ratio is in the Philippines at 3. This proves that in terms of asset quality (NPL), the Philippines is better than the two other countries.
3. There are differences in operating efficiency with the indicator of Operating Costs to Operating Income (BOPO) in banking performance between Indonesia and Thailand and the Philippines. for the lowest average BOPO is SCB Thailand at 3 percent. The increasing ratio reflects a bank's lack of ability to reduce operating costs and increase its operating income, which can cause losses because banks are less efficient in managing their business. Thus descriptively the operational efficiency of SCB Thailand is better than the other two countries.
4. There is a significant difference in liquidity risk with the Loan to Deposit Ratio (LDR) indicator in banking performance between Indonesia and Thailand and the Philippines. In descriptive terms, the Philippine BDO bank is good because of its high liquidity value, amounting to 12 percent.

#### Research Limitation

There are several limitations in this study and it is a concern for future researchers in perfecting their research because this research itself certainly has shortcomings that need to be fixed in the future. Some of the limitations of this study include:

1. the object of research has not yet referred to the ranking of the Bank in each country
2. The number of country representative banks can still be added
3. research variables can be developed again
4. Banking data can be updated so that research is more up to date.
5. External variables can be added for banking issues.

#### ACKNOWLEDGMENT

The researchers would like to thank the institute for research and community service at Stikubank University who supported this research and we would also like to thank the ICOBAME committee for the opportunity.

#### REFERENCES

- [1] H. Tehranian, M. M. Cornett, A. J. Marcus, and A. Saunders, "Earnings Management, Corporate Governance, and True Financial Performance," *SSRN Electron. J.*, no. 618, 2011, doi: 10.2139/ssrn.886142.
- [2] Kuncoro, *Manajemen Perbankan, Teori dan Aplikasi*. Jakarta: PT. Indeks Kelompok Gramedia, 2002.
- [3] G. P. Paudel and S. Khanal, "Determinants of Capital Adequacy Ratio (CAR) in Nepalese Cooperative Societies," *SSRN Electron. J.*, pp. 1–20, 2015, doi: 10.2139/ssrn.2647541.
- [4] A. Diyanti, "Analisis Pengaruh Faktor Internal dan Eksternal Terhadap Terjadinya Non-Performing Loan," *Diponegoro J. Manag.*, vol. 1, no. 2, p. 85, 2012.
- [5] R. K. Djohanputro, Bramantyo, "Non Performing Loan (NPL) Bank Perkreditan Rakyat (BPR).," 2007.
- [6] Dendawijaya, *Manajemen Perbankan*. Jakarta: Ghalia Indonesia, 2009.