A Comparative Analysis of the Determinants of Bank Profitability: The Roles of Liquidity and Leverage in Indonesia and Thailand, 2015–2024

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ABSTRACT

Bank profitability in Indonesia and Thailand fluctuated differently during the 2015–2024 period, particularly during the pandemic and the subsequent recovery, while prior empirical findings remain inconsistent. This study compares the effects of liquidity and leverage on bank profitability while controlling for firm size. Annual data from conventional banks in Indonesia and Thailand were analysed using multiple linear regression. The results indicate that profitability in Indonesia is influenced by leverage and firm size, whereas in Thailand it is affected by liquidity, leverage, and firm size. The novelty of this study lies in its comparative analysis of Indonesia and Thailand over the 2015–2024 period. It also extends previous research by focusing on conventional banks and incorporating firm size as a control variable. This study contributes to the ASEAN banking literature and offers strategic implications for both management and regulators.

Keywords: Liquidity, Leverage, Profitability, Firm Size, Banking

Analisis Komparatif Determinan Profitabilitas Bank: Peran Likuiditas dan Leverage di Indonesia dan Thailand Selama 2015-2024

ABSTRAK

Profitabilitas perbankan di Indonesia dan Thailand berfluktuasi berbeda selama 2015-2024, terutama di tengah pandemi dan pemulihan, sementara temuan empiris sebelumnya tetap tidak konsisten. Studi ini membandingkan efek likuiditas dan leverage pada profitabilitas bank, mengendalikan ukuran perusahaan. Data tahunan dari bank konvensional di Indonesia dan Thailand dianalisis menggunakan regresi linier berganda. Hasil penelitian menunjukkan bahwa profitabilitas di Indonesia didorong oleh leverage dan ukuran perusahaan, sedangkan di Thailand dipengaruhi oleh likuiditas, leverage, dan ukuran perusahaan. Kebaruan studi ini terletak pada perbandingan Indonesia-Thailand 2015-2024. Pengembangan kajian sebelumnya terhadap objek bank konvensional dengan pengendalian ukuran perusahaan. Studi ini berkontribusi untuk memperkaya literatur perbankan ASEAN dan memberikan implikasi strategis bagi manajemen dan regulator.

Kata Kunci: *Likuiditas, Leverage, Profitabilitas, Ukuran Perusahaan, Perbankan*

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INTRODUCTION

Bank profitability can influence economic growth through its contribution to financial system stability, with these effects tending to be stronger in developed countries than in developing ones. Accordingly, the overall performance of the banking sector plays an important role in assessing a country's economic health (Sutrisno, 2025; Klein & Weill, 2022; Kumar & Bird, 2020). Banks not only function as financial intermediaries by safeguarding customer funds, but also channel those funds in the form of credit to finance businesses and investment activities, which in turn can create employment opportunities, increase income, and reduce poverty rates (Majeed & Zainab, 2021; Jayawardhana et al., 2025). In Indonesia and Thailand, both of which are developing countries, the banking sector plays a crucial role in facilitating financial transactions more efficiently while maintaining stability and supporting economic growth in Southeast Asia. The development of this sector contributes to improvements in infrastructure and quality of life, while also strengthening national economic resilience through the achievement of optimal profitability, as shown in the following figure.

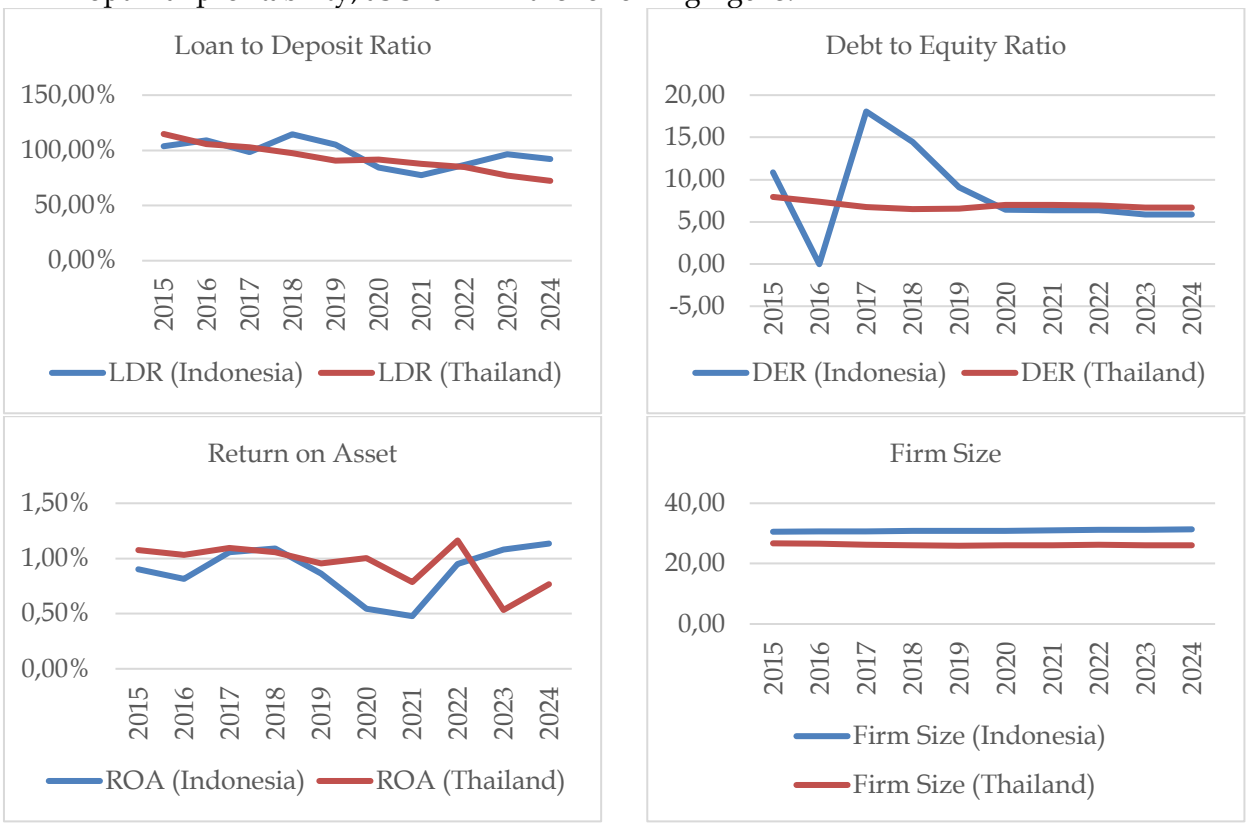

Figure 1. Graphs of Conventional Bank Variables in Indonesia and Thailand

Source: Research Data, 2026

Over the ten-year period from 2015 to 2024, both the global and Southeast Asian economies faced a range of challenges. As a key pillar of the economy, the banking sector was required to adapt to global economic uncertainty, international trade dynamics, and the impact of COVID-19. In responding to these challenges, the banking sectors in Indonesia and Thailand demonstrated considerable resilience, as illustrated in Figure 1. Both countries not only managed to withstand

these pressures but also maintained relatively healthy financial positions. Nevertheless, this stability does not necessarily indicate optimal profitability.

During the 2019–2021 period, both countries experienced a decline in return on assets (ROA), although the patterns differed. Indonesia faced greater pressure on profitability, with ROA reaching its lowest point in 2021. By contrast, Thailand recorded a relatively more stable ROA, although it declined in 2023 before increasing again in 2024.

Significant differences can also be observed in funding structure and liquidity, with distinct patterns emerging in each country. In Indonesia, the trend in the loan-to-deposit ratio (LDR) fluctuated considerably, peaking in 2018, then declining sharply after the pandemic before rising again moderately. In contrast, Thailand exhibited a steadily declining LDR trend until 2024, reflecting a more prudent approach to credit distribution. In terms of leverage, Thailand showed a stable debt-to-equity ratio (DER), ranging between 6 and 7, whereas Indonesia recorded a slightly lower DER during the same period. These differences indicate variation in funding strategies and in the level of financial risk faced by banks in each country.

Conventional banking in the two countries also reflected different policy approaches. Indonesia emphasised economic recovery through credit restructuring policies (Otoritas Jasa Keuangan, 2020), interest rate reductions (Bank Indonesia, 2021), and a national economic recovery programme focused on financial sector stabilisation and liquidity support. Meanwhile, Thailand implemented debt moratorium policies (Stapporncharnchai, 2020), asset warehousing programmes (Chantanusornsiri, 2021), and increased capital buffer requirements (Bank of Thailand, 2017).

These policy differences appear to have influenced the financial performance of each country. Expansionary monetary and credit policies in Indonesia supported the recovery of ROA in the post-pandemic period from 2022 onward, whereas Thailand's stricter prudential approach succeeded in stabilising leverage but also contributed to the decline in LDR and constrained profitability recovery. Thus, differences in fund mobilisation strategies, credit distribution, and financial regulation provide an important context for analysing the effects of liquidity and leverage on bank profitability in both countries.

Bank profitability reflects the effectiveness with which banks utilise their resources to generate profit and maintain business stability. Financial performance generally refers to the measurement of an organisation's overall financial condition over a specific period (Sathyamoorthi et al., 2020). In this study, profitability is measured using ROA, which reflects the effectiveness of asset management in generating net profit after tax. The use of ROA is considered appropriate in the banking context because the core operations of these financial institutions depend heavily on the management of productive assets, such as loan portfolios and investment instruments. ROA therefore provides an accurate reflection of management's capability to allocate total assets in a manner that generates sustainable profit.

This study measures liquidity using the LDR, which refers to a bank's capacity to allocate loans based on the proportion of credit extended relative to total funds successfully collected from the public and the bank's own capital

(Ariyani et al., 2025). Liquidity is defined in flow terms, namely the smooth movement of funds between the financial system and market participants, as well as the ability to realise these flows (Alhassan & Islam, 2021). Adequate liquidity to meet customer demand is fundamental to banking operations (Wuave et al., 2020). In accordance with Bank Indonesia guidelines, an LDR in the range of 80% to 110% is considered safe for banks (Sari & Nurdiawansyah, 2024). The LDR was selected because it is effective in evaluating a bank's ability to channel collected funds into productive lending, while also reflecting the efficiency of liquidity management in supporting profitability.

Leverage in this study is measured using the Debt-to-Equity Ratio (DER), calculated as total liabilities divided by total equity. When debt levels are excessively high, banks face greater financial risk, which may ultimately make it more difficult to obtain additional debt financing and increase funding costs from creditors (Mennawi, 2020). The selection of DER is based on its ability to reflect the proportion of funding derived from external sources relative to internal capital, while also indicating the level of financial vulnerability that may affect stability and profitability.

To improve the accuracy of the analysis, this study includes firm size as a control variable, as the scale of a bank's total assets may influence its level of profitability. Banks with larger asset bases generally have more stable sources of funding, broader operational networks, and stronger capacities to manage business activities than banks with smaller asset bases. This condition may lead to differences in ROA that arise not from liquidity or leverage, but from differences in bank size itself. Based on (Khoza, 2025), the inclusion of this variable is justified because that study found that firm size had a negative and statistically insignificant effect on ROA in consumer goods companies. Accordingly, firm size is controlled for so that the results of this study can more accurately identify the effects of liquidity and leverage on profitability (ROA) without bias arising from differences in bank asset size.

The resilience of the banking sector, as reflected in the stability of these three financial ratios, confirms that Indonesia and Thailand are developing countries with financial systems that are capable of withstanding global economic challenges. This stability is consistent with (Bank Indonesia, 2023), which stated that the Indonesian banking sector remained strong despite global pressures, and with (Bank of Thailand, 2024), which affirmed the stability of Thai banking through maintained liquidity and capital adequacy. Based on these conditions, this study analyses and compares how liquidity and leverage affect the profitability of the banking sector in Indonesia and Thailand as an effort to understand the resilience of banking systems in developing countries in responding to economic challenges.

Previous studies have extensively examined the effects of liquidity and leverage on profitability, yet the findings remain inconsistent. Several studies, including those by Alshakhanbeh et al. (2024), Nam & Tuyen (2024), Cahyani et al. (2024), Khoza (2025), Kariuki et al. (2021), dan Bilal et al. (2024), identified a positive effect of liquidity on profitability. However, other studies reported insignificant or even contradictory results, such as those by Yahaya et al. (2021), Karim et al. (2021), Nugraha et al. (2020) dan Li et al. (2020). A similar pattern is

evident for leverage. Some studies found negative effects of leverage, including Alshakhanbeh et al. (2024), Cahyani et al. (2024), Budiman & Margaretha (2024), Siswanto et al. (2023), Arhinful & Radmehr (2023), Bhatia & Kumari (2025), dan Kalantonis et al. (2021). By contrast, Khoza (2025) dan Nugraha et al. (2020) reported weak or insignificant effects of leverage. This research gap highlights the need to identify the main factors affecting profitability in the Indonesian and Thai banking sectors.

Referring to the existing literature, no study has been found that specifically compares the determinants of bank profitability between Indonesia and Thailand while incorporating firm size as a control variable within an integrated analytical framework. This study therefore seeks to fill that gap through replication and development of the work of Pojanavatee & Kingshott (2025), which previously focused on 111 savings and credit cooperatives in Thailand during the 2017–2022 period, by shifting the research object to conventional commercial banks and extending the observation period to 2015–2024. The novelty of this study lies in its cross-country comparative approach, covering the periods before, during, and after the COVID-19 pandemic, thereby capturing the dynamics of recovery and resilience in the banking sector in the face of global economic pressures, while also strengthening the empirical model by controlling for firm size in order to minimise potential scale bias.

This study was conducted to examine and compare whether liquidity and leverage affect the profitability of conventional commercial banks in Indonesia and Thailand, with firm size included as a control variable. The study is expected to provide theoretical contributions by enriching the literature on ASEAN banking and finance, while practically its findings may serve as a reference for policymakers in managing liquidity and leverage to improve profitability.

Agency theory, as proposed by Jensen & Meckling (1976), provides the main theoretical foundation for this study. This theory explains the relationship between company owners, referred to as principals, and management, referred to as agents, who are entrusted with managing the company's daily activities. Within this relationship, conflicts of interest often arise because managers, as agents, may make decisions that do not always prioritise the principal's main objective of maximising firm value. This theory is relevant in the context of liquidity and leverage management in the banking sector, where management, as agents, must act in the best interests of bank owners by maintaining a balance between risk and return. Excessively high liquidity may reflect management's cautious approach to operational continuity and bank resilience, whereas high leverage may indicate management's willingness to take risks that could ultimately burden the bank's financial condition in the long term. On this basis, agency theory provides a strong foundation for explaining decisions related to liquidity and leverage as reflections of management behaviour and motivation that affect bank financial outcomes.

Based on agency theory (Jensen & Meckling, 1976), this study proposes hypotheses to examine how the Loan-to-Deposit Ratio (LDR), as a measure of liquidity, may affect banking profitability in Indonesia. Agency theory posits that principals invest their capital with the expectation of obtaining optimal returns through effective fund management by agents. However, the interests of principals and agents are not always aligned. Principals seek high profitability,

which may be achieved through maximum credit distribution, whereas agents, as daily managers, tend to behave more conservatively by maintaining high liquidity in order to avoid default risk that could threaten bank stability and their professional reputation. A controlled level of LDR may minimise agency conflict by satisfying the principal's desire for profit while preserving bank stability in accordance with prudential principles. Empirical evidence from Bilal et al. (2024) confirms a positive effect of liquidity on financial performance, Kariuki et al. (2021) show that liquidity has a substantial positive effect on financial performance, and Yuniari & Badjra (2019) likewise report a positive effect on profitability, as measured by ROA. Taken together, these studies suggest that liquidity may improve profitability.

H_{1a}**:** Liquidity affects banking profitability in Indonesia.

Liquidity is also a crucial indicator in Thai banking, as it supports banking operations, especially when banks face external pressures such as interest rate fluctuations. From the perspective of agency theory, the relationship between principals and agents is always characterised by potential conflicts of interest, particularly in financial decision-making. Principals may prefer aggressive credit expansion to increase returns, whereas agents face reputational and regulatory consequences if they fail to maintain adequate liquidity. Management that is able to manage liquidity effectively demonstrates an ability to minimise agency conflict, because such decisions not only protect the agent's interests but also support the owners' objective of improving bank profitability. An optimal LDR therefore becomes an effective instrument for reducing agency costs. Empirical findings from Khoza (2025) report a statistically significant positive effect of liquidity on ROA, Nam & Tuyen (2024) show a positive effect of liquidity on financial performance, and Oktaviana & Retnaningdiah (2025) conclude that liquidity has a significant positive effect on profitability. These findings strengthen the argument that sound liquidity management is a means of minimising agency costs and ultimately improving bank profitability.

H_{1b}: Liquidity affects banking profitability in Thailand.

Leverage describes the extent to which debt is used relative to equity to finance bank operations, as reflected in the Debt-to-Equity Ratio (DER). In agency theory, management's decision, as agents, in determining the level of leverage reflects an effort to optimise capital efficiency by considering tax benefits and economies of scale that may increase ROA. However, excessive leverage may also create financial risks that intensify conflicts of interest between management and owners. Agents may engage in risk shifting by taking excessive investment risks in pursuit of high returns to cover debt burdens, while principals bear the ultimate consequences if those investments fail. Proper leverage management therefore reflects management's ability to balance risk and return. Banks that manage leverage optimally at moderate levels may obtain benefits, although in practice the negative tendency may become more dominant when leverage reaches excessive levels that are detrimental to the bank. Empirical findings from Khoza (2025), Susilawati & Purnomo (2023) and Arifin et al. (2024) indicate that leverage affects profitability.

H_{2a}**:** Leverage affects banking profitability in Indonesia.

In Thailand, leverage is measured using the DER. This ratio reflects the use of external funding to support bank operational activities. Based on agency theory, management's decision in determining the level of leverage constitutes a financial policy that reflects the dynamic relationship between the interests of owners, as principals, and management, as agents. Agents do not have broad discretion in managing leverage because each funding decision is subject to strict regulatory oversight. The optimal use of leverage has the potential to improve capital efficiency through tax benefits and economies of scale, thereby increasing profitability. However, when leverage reaches excessive levels, pressure to meet short-term obligations may trigger high-risk or short-term managerial behaviour that conflicts with the long-term interests of shareholders. In this context, uncontrolled leverage increases agency costs and may reduce profitability. Findings from Budiman & Margaretha (2024) dan Rompis et al. (2025) indicate that leverage negatively affects profitability, whereas Kalantonis et al. (2021) report a positive relationship with profitability.

H_{2b}**:** Leverage affects banking profitability in Thailand.

Based on the theories and hypotheses proposed, this study employs a framework to examine the relationship of liquidity (X_1) and leverage (X_2) with bank profitability (Y) in the banking sector.

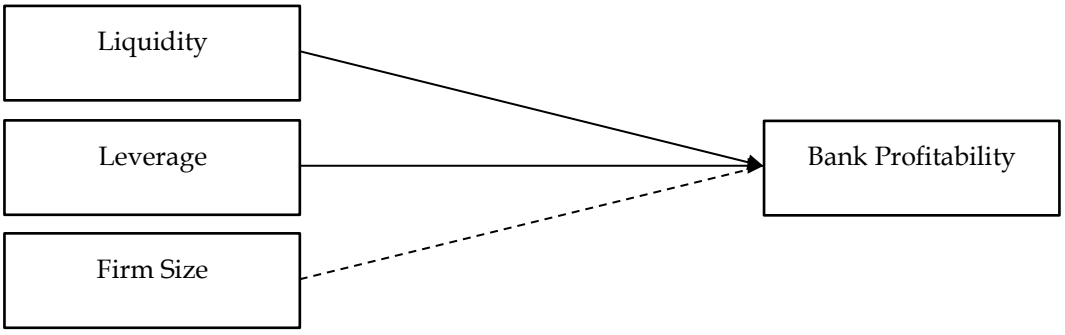

Figure 2. Research Model

Source: Research Data, 2026

The research model shows the relationship between research variables, so that liquidity and leverage affect bank profitability, while firm size acts as a control variable.

RESEARCH METHODS

This study employs a quantitative comparative cross-country design using the population of conventional commercial banks in Indonesia and Thailand during the 2015–2024 period. According to data from the Financial Services Authority (OJK), the population of conventional banks in Indonesia during 2015–2024 was 876, while data from the Bank of Thailand show that the population of conventional banks in Thailand over the same period was 840. The bank samples were selected using purposive sampling based on the criteria presented in Table 1.

Table 1. Sample Criteria for Indonesia and Thailand

No	Criteria	Indonesia	Thailand
1	Conventional banks according to OJK/Bank of Thailand data 2015-2024	876	840
2	Conventional banks that were inconsistent	0	(207)
3	Financial reports not ending on December 31 during the research period	0	(208)
4	Conventional banks not using Rupiah/Baht currency	0	(190)
5	Conventional banks that experienced losses	(88)	(8)
Number of banks meeting requirements		788	227
Data Outlier		(173)	(130)
Total Observation Data		615	97

Source: Research Data, 2026

Based on the sample selection process presented in Table 1, the final number of observations used in this study was 615 banks for Indonesia and 97 banks for Thailand.

This study employs multiple linear regression analysis using the Ordinary Least Squares (OLS) approach. The data used consist of a combination of time-series data from 2015 to 2024 and cross-sectional data from banking companies in Indonesia and Thailand, processed using SPSS software. The stages of analysis include descriptive statistics to describe the characteristics of the research variables, classical assumption tests consisting of normality, multicollinearity, heteroscedasticity, and autocorrelation tests, as well as hypothesis testing using the t-test (partial), F-test (simultaneous), and coefficient of determination (R^2).

Profitability in banking, measured by ROA, reflects a bank's efficiency in maximising its assets to generate stable and optimal profits (Pratama et al., 2024). Profitability is calculated as follows:

$$\text{ROA} = \frac{\text{Net Profit After Tax}}{\text{Total Assets}} \times 100\% \quad \text{.....(1)}$$

The first independent variable is liquidity, referring to the bank's readiness to pay off short-term obligations quickly using liquid resources (Hutasoit et al., 2022). Liquidity is calculated as follows:

$$\text{LDR} = \frac{\text{Total Credit}}{\text{Total Third Party Funds}} \times 100\% \quad \text{.....(2)}$$

The second independent variable is leverage, which describes the extent to which banks use external funding sources, such as debt, relative to their own capital in financing operations and business activities (Febriana et al., 2022). Leverage is calculated as follows:

$$\text{DER} = \frac{\text{Total Debt}}{\text{Total Equity}} \times 100\% \quad \text{.....(3)}$$

The control variable is firm size, so the scale of bank assets becomes the main benchmark reflecting the bank's capability, effectiveness, and operational resilience (Khoza, 2025). Firm size is calculated as follows:

$$\text{Firm Size} = \ln(\text{Total Assets}) \quad \text{.....(4)}$$

This study uses multiple linear regression analysis to explore how liquidity (X_1) and leverage (X_2) affect profitability (Y). The regression model used can be formulated as follows:

$$ROA = \beta_0 + \beta_1 LDR + \beta_2 DER + \beta_3 SIZE + \varepsilon \ldots\ldots (5)$$

Where:

Y	= Profitability (ROA)
β_0	= Constant
$\beta_1 - \beta_2$	= Regression coefficients for each independent variable
LDR	= Liquidity
DER	= Leverage
SIZE	= Firm Size
ε	= Error term

RESULT AND DISCUSSION

Research data is described through minimum, maximum, mean, and standard deviation values for each variable, presented in table 2 through descriptive statistical analysis.

Table 2. Descriptive Statistical Test

Variable	Country	N	Minimum	Maximum	Mean	Std. Deviation
Liquidity (LDR)	Indonesia	615	49,74	119,47	84,912	13,971
	Thailand	97	75,26	112,00	93,327	7,460
Leverage (DER)	Indonesia	615	0,47	11,13	5,685	2,192
	Thailand	97	4,70	10,89	7,469	1,318
Profitability (ROA)	Indonesia	615	0,01	3,67	1,324	0,801
	Thailand	97	0,07	1,72	0,971	0,398
Firm Size	Indonesia	615	27,32	34,95	31,030	1,446
	Thailand	97	24,40	29,15	27,640	1,356

Source: Research Data, 2026

Based on the descriptive statistical results, the average LDR of conventional banks in Indonesia is 84.91%, which is lower than that of Thailand at 93.33%, indicating that banks in Thailand are relatively more aggressive in credit distribution. The range and standard deviation of LDR in Indonesia are also larger than those in Thailand, suggesting greater variation in liquidity policy among Indonesian banks, whereas Thailand exhibits a more stable and uniform pattern.

For the leverage variable (DER), the average in Indonesia is 5.68, while in Thailand it is 7.47, indicating that the funding structure of Thai banks is relatively more dependent on liabilities. The variation in DER is greater in Indonesia than in Thailand, illustrating more heterogeneous differences in the level of debt dependence among banks compared with Thailand.

Profitability (ROA) in Indonesia averages 1.32%, which is higher than Thailand's 0.97%, and it also shows greater variation, indicating that differences in profit performance among banks are relatively more pronounced in Indonesia. By contrast, ROA in Thailand falls within a narrower range, suggesting that profitability among Thai banks tends to be more even. Meanwhile, firm size in Indonesia is larger than in Thailand, reflecting a relatively greater asset scale. Nevertheless, the level of variation in firm size in both countries is relatively similar, indicating that the main difference lies in the scale of the banking industry rather than in differences in size among individual banks.

Table 3. Classical Assumption Tests

Variable	Country	Normality		Multicollinearity		Heteroscedasticity	Autocorrelation
		Asymp. Sig. (2-tailed)	Monte Carlo Sig. (2-tailed)	Tolerance	VIF	Sig.	Durbin-Watson
Liquidity (X_1)				0,975	1,025	0,987	
Leverage (X_2)	Indonesia	0,000	0,055	0,924	1,082	0,858	2,030
Firm Size				0,932	1,073	0,463	
Liquidity (X_1)				0,753	1,328	0,178	
Leverage (X_2)	Thailand	0,200	0,677	1,000	1,000	0,038	2,017
Firm Size				0,753	1,328	0,063	

Source: Research Data, 2026

Based on the results of the classical assumption tests, the regression models for conventional banks in Indonesia and Thailand met the required criteria. In Indonesia, the normality test, based on a Monte Carlo significance value above 5%, indicates that the residuals are normally distributed. Similarly, in Thailand, the normality test, as reflected in both the Asymp. Sig. and Monte Carlo Sig. values above 5%, also indicates normally distributed residuals. The multicollinearity test shows that all variables have tolerance values above 0.10 and VIF values below 10, indicating the absence of multicollinearity. Furthermore, the heteroscedasticity test produced significance values above 0.05, suggesting that there is no indication of heteroscedasticity. In addition, the Durbin–Watson values of 2.030 for Indonesia and 2.017 for Thailand indicate that both models are free from autocorrelation.

Table 4. Coefficient of Determination

Country	R	R Square	Adjusted R Square	Std. Error of the Estimate
Indonesia	0,218	0,048	0,043	0,73673
Thailand	0,447	0,200	0,174	0,36137

Source: Research Data, 2026

Table 4 shows that the adjusted R-square value for the Indonesian model is 4.3%, indicating that only 4.3% of the variation in profitability (ROA) is explained by the variables included in the model, while the remaining 95.7% is explained by factors outside the model. Meanwhile, the Thailand model produced an adjusted R-square value of 17.4%, indicating greater explanatory power than the Indonesian model, although other variables still influence profitability. These findings suggest that the model is more effective in explaining banking profitability in Thailand than in Indonesia.

Based on the F-test results presented in Table 5, the Indonesian model has an F-value of 10.159 (sig. 0.000), while the Thailand model has an F-value of 7.759 (sig. 0.000). The significance values for both models are below 0.05, indicating that LDR, DER, and firm size simultaneously have a significant effect on ROA. These results show that the independent and control variables jointly explain changes in profitability, indicating that the regression model is appropriate for further partial hypothesis testing using the t-test.

Table 5. Model Test (F-Test)

Model	Country	Sum of Squares	df	Mean Square	F	Sig.
Regression	Indonesia	16,542	3	5,514	10,159	0,000
Residual		331,090	610	0,543		
Total		347,632	613			
Regression	Thailand	3,040	3	1,013	7,759	0,000
Residual		12,145	93	0,131		
Total		15,184	96			

Source: Research Data, 2026

Table 6. Hypothesis Test (t-Test)

Model	Country	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
(Constant)	Indonesia	-1,483	0,544		-2,728	0,007
Liquidity (X_1)		0,003	0,002	0,062	1,554	0,121
Leverage (X_2)		-0,055	0,014	-0,161	-3,868	0,000
Firm Size		0,114	0,025	0,187	4,508	0,000
(Constant)	Thailand	-3,802	1,236		-3,076	0,003
Liquidity (X1)		0,021	0,006	0,393	3,676	0,000
Leverage (X2)		-0,062	0,028	-0,206	-2,224	0,029
Firm Size		0,119	0,031	0,405	3,789	0,000

Source: Research Data, 2026

From data processing on conventional banks in Indonesia, the following multiple linear regression equation was obtained:

$$\text{ROA} = -1{,}483 + 0{,}003\text{LDR} - 0{,}055\text{DER} + 0{,}114\text{SIZE} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (6)$$

The negative constant of -1.483 indicates that, in the absence of the independent variables, profitability tends to be low. The regression coefficients show the direction and magnitude of the effect of each variable. Within the framework of agency theory (Jensen & Meckling, 1976), these results reflect management decisions, as agents, in managing liquidity and leverage, both of which may affect profitability as the principal's interest. These findings confirm that funding structure and fund management policies are strategic factors in determining banking profit performance, particularly in the post-pandemic period, which has been marked by heightened economic uncertainty.

The partial test shows that liquidity does not have a significant effect on profitability (coefficient 0.003, significance 0.121), which means that changes in liquidity levels have not been able to directly influence banking profits in Indonesia. From the perspective of agency theory, this insignificant result suggests that management's conservative behaviour, as agents, prioritises stability and

liquidity security in order to avoid default risk, although this decision may sacrifice the long-term profits expected by principals. This interpretation is also supported by the descriptive statistics, which show that the average LDR of Indonesian banks is 84.91%, indicating that banks are more focused on maintaining liquidity stability than on expanding credit, as the LDR level remains within the safe range in the banking context. From the perspective of intermediation efficiency, a moderate LDR suggests that the bank's role as a credit intermediary has not yet been fully optimised. Third-party funds collected are not entirely converted into productive assets that generate interest income, a situation further aggravated by intense competition and selective lending in the post-pandemic period. The theoretical implication is that agency costs in Indonesian banking arise not only from traditional conflicts of interest, but also from overly conservative agent behaviour shaped by the legacy of past crises and regulatory pressure based on prudential incentives.

Leverage has a significant negative effect on profitability (coefficient -0.055, significance 0.000), meaning that high leverage increases financial pressure and may reduce profits. This mechanism can be explained by the fact that an increase in DER directly raises the fixed interest expenses that banks must bear. In the Indonesian banking funding structure, which is characterised by relatively high funding costs due to elevated benchmark interest rates and exchange rate volatility, these interest expenses significantly erode net profit. From the perspective of agency theory, excessive leverage can create agency costs because management, as agents, may pursue riskier funding decisions for expansion purposes, which in turn adds financial pressure and harms principals. Descriptive statistics also show substantial variation in DER (standard deviation 2.19), with values ranging from 0.47 to 11.13. This indicates that some banks operate with very high leverage levels above 10 and therefore face substantial financial pressure, while others with very low leverage below 1 may miss opportunities for expansion.

Firm size, as a control variable, has a significant positive effect on profitability (coefficient 0.114, significance 0.000), indicating that banks with larger asset bases tend to benefit from better resource management and greater economies of scale in generating profits. From the perspective of agency theory, large banks generally possess stronger monitoring systems and governance structures, which may reduce conflicts of interest between agents and principals. Economies of scale enable large banks to reduce operational costs per unit, diversify their portfolios more extensively, and gain easier access to funding. This is consistent with the descriptive statistics, which show that the average firm size of Indonesian banks is 31.03, reflecting the dominance of large-scale banks within the Indonesian banking system.

In Thailand, multiple linear regression produced the equation:

$$\mathrm{ROA} = -3{,}802 + 0{,}021\mathrm{LDR} - 0{,}062\mathrm{DER} + 0{,}119\mathrm{SIZE}$$

The constant of -3.802 indicates that profitability tends to be low when the influence of all independent variables is excluded. Partial testing shows that liquidity has a significant positive effect on profitability (coefficient 0.021, significance 0.000), indicating that higher liquidity can generate greater profit. This suggests that banks in Thailand are better able to optimise third-party funds into

productive lending, thereby contributing directly to profitability. From the perspective of agency theory, this finding indicates that management, as agents, is able to manage funds effectively in accordance with the interests of principals, allowing the intermediation function to operate optimally. Descriptive statistics support this finding, as Thailand's average LDR of 93.33% is higher than that of Indonesia, indicating that Thai banks tend to distribute credit more aggressively, which in turn contributes to higher ROA. The relatively low standard deviation of Thailand's LDR (7.46) also indicates greater uniformity in agent behaviour in responding to the consistent regulatory framework of the Bank of Thailand. This uniformity creates certainty and stability that support liquidity optimisation. In addition, the structural characteristics of Thai banking, including higher market concentration and more measured competition, allow banks to distribute credit efficiently without exerting excessive pressure on asset quality.

Leverage has a significant negative effect on profitability (coefficient -0.062, significance 0.029), indicating that increased reliance on debt can suppress profits because of higher interest expenses and greater financial risk. Although Thailand has a more stable and uniform banking system, leverage still appears to reduce profitability. The presence of the Bank of Thailand as a strong regulator may reduce traditional conflicts of interest between principals and agents, but it also creates a different form of agency cost arising from regulatory compliance. Principals are better protected because the system is more stable, yet profitability may become constrained because the flexibility of agents is limited by regulation. From the perspective of agency theory, high leverage may intensify conflicts of interest because agents must operate under the pressure of debt obligations, which can increase the risk associated with managerial decision-making and, consequently, raise agency costs in the principal–agent relationship. Thailand's average DER of 7.47 also shows that the funding structure of Thai banks is relatively more dependent on liabilities, although the variation is lower than that observed in Indonesia.

Firm size, as a control variable, also has a significant positive effect on profitability (coefficient 0.119, significance 0.000), indicating that larger banks enjoy advantages in operational efficiency and in the utilisation of economies of scale. Firm size is therefore shown to be a supporting factor for profitability in Thailand. Banks with larger scale benefit from greater operational efficiency, broader risk diversification, and easier access to funding. From the perspective of agency theory, larger firm size is also associated with stronger internal oversight and better governance mechanisms that help minimise conflicts of interest. Descriptive statistics show that the average firm size in Thailand is 27.64, which suggests that although Thai banks are smaller on average than Indonesian banks, larger banks in Thailand still possess stronger capacity to improve profitability.

Based on the partial tests, there are differences in the determinants of profitability between conventional banks in Indonesia and Thailand. This finding represents an important contribution of the study to understanding heterogeneity in banking behaviour within ASEAN, while also addressing a gap in the literature, which has thus far been limited in comparative studies of the two countries. Liquidity is not significant in Indonesia but is significant in Thailand, indicating differences in managerial effectiveness in optimising third-party funds. Banks in

Thailand appear to be better able to channel credit productively, thereby directly affecting profits, whereas in Indonesia liquidity management is more strongly oriented toward stability. Meanwhile, leverage has a negative effect in both countries because it increases interest expenses and financial pressure, thereby potentially reducing profitability. Firm size has a positive effect because large-scale banks tend to have better efficiency and stronger oversight systems, which in turn enable them to increase profits.

In addition to these differences in determinants, the higher average ROA in Indonesia compared with Thailand suggests that banks in Indonesia are better able to generate profits from their assets. This condition is supported by a larger asset base, a broader market structure, and more expansive intermediation strategies. From the perspective of agency theory, management, as agents, appears to be capable of managing assets productively in the interests of principals. By contrast, Thailand's more conservative approach may constrain profit expansion. Thus, profitability differences between the two countries are determined not only by financial variables but also by managerial strategies operating within the institutional context of each banking system.

The novelty of this study lies in its comparative analysis of Indonesia and Thailand, which remains relatively rare, its 2015–2024 observation period covering the pre-pandemic, pandemic, and post-pandemic phases, its extension of the study by Pojanavatee & Kingshott (2025) through shifting the research object from cooperatives to conventional commercial banks, and its inclusion of firm size as a control variable to improve the precision of the analysis.

CONCLUSION

This comparative study reveals that the determinants of banking profitability differ between the two countries. In the Indonesian context, banking profitability tends to be associated with leverage and firm size. In contrast, in Thailand, profitability is associated with liquidity, leverage, and firm size. In this study, firm size consistently acts as a supporting factor in increasing profitability. Overall, the combination of these financial variables contributes to explaining banking profitability.

An important contribution of this study lies in the comparative empirical evidence it provides regarding the determinants of banking profitability in Indonesia and Thailand over the 2015–2024 period. Liquidity has a significant effect only in Thailand, whereas leverage and firm size consistently affect profitability in both countries. These findings enrich the ASEAN banking literature. From a practical perspective, this study offers implications for bank management in formulating more effective funding structure and intermediation strategies. In addition, the findings may serve as a reference for regulators and investors in understanding the main factors affecting banking performance in each country.

This study also has limitations that open opportunities for future research. The substantial difference in sample size between the two countries may affect the validity of the comparison.

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