Capital Adequacy, Profitability, and *Murabahah* Financing: The Moderating Role of Non-Performing Financing in Indonesian Islamic Commercial Banks

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Abstract: This study examines the effects of the Capital Adequacy Ratio (CAR) and Return on Assets (ROA) on *murabahah* financing, with Non-Performing Financing (NPF) serving as a moderating variable in Indonesian Islamic Commercial Banks. Employing a quantitative approach with a causal-associative research design, the study analyzes secondary data from six Islamic Commercial Banks registered with the Financial Services Authority (OJK). The data are analyzed using moderated regression analysis. The findings show that CAR has a negative and statistically significant effect on *murabahah* financing, whereas ROA has no statistically significant effect. Furthermore, NPF does not significantly moderate the relationships between either CAR or ROA and *murabahah* financing. However, CAR and ROA jointly have a statistically significant effect on *murabahah* financing. These findings indicate that capital adequacy plays an important role in determining *murabahah* financing policies, whereas profitability, as measured by ROA, does not independently drive the expansion of *murabahah* financing. The findings highlight the importance of optimizing CAR management to balance capital stability with financing growth and improving operational efficiency to strengthen bank profitability. Although NPF does not function as a significant moderating variable, asset quality remains an important consideration in the sustainable planning and management of *murabahah* financing.
Keywords: CAR, ROA, *murabahah* financing, NPF, Indonesian Islamic banks

A. Introduction

Islamic banking has emerged as a significant component of Indonesia's national financial system since the establishment of Bank Muamalat in 1992. Its development accelerated following the 1998 monetary crisis, as growing public acceptance strengthened the demand for Sharia-compliant financial services. This expansion is reflected in the Financial Services Authority (OJK) data, which report 14 Islamic Commercial Banks (BUS), 164 Islamic Rural Financing Banks (BPRS), and 20 Islamic Business Units (UUS). These institutions play a strategic role as financial intermediaries by mobilizing funds from the public and channeling them into productive financing based on Islamic contractual principles, including sale and purchase (*murabahah*), profit sharing (*musyarakah* and

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mudharabah), and leasing (*ijarah*). Through these mechanisms, Islamic banks not only facilitate the circulation of capital but also translate Sharia principles into concrete financial and economic activities.[1]

The legal foundation of Islamic banking in Indonesia rests on Law No. 21 of 2008 on Islamic Banking, which establishes the institutional framework for collecting and channeling funds to promote public welfare.[2] Beyond providing a regulatory foundation, the law reflects the distinctive principles that underpin Islamic banking and set it apart from conventional banking, most notably the prohibition of *riba* (usury). This prohibition constitutes a fundamental principle of Islamic finance and is firmly grounded in the Qur'an, particularly Q.S. al-Baqarah [2]: 275.[3]

Muhammad Quraish Shihab explains in his commentary on Al-Miṣbāḥ that Islam permits sale and purchase because such transactions are fundamentally different from *riba*. Unlike *riba*, which generates returns without requiring a corresponding productive exchange, sale and purchase are grounded in legitimate economic activity involving the effort, goods, and responsibilities of the parties involved. Profit, therefore, is not merely a predetermined return; it results from entrepreneurial effort, effective management, and the assumption of commercial risk. Because the outcome of a sale depends on the parties' expertise, management decisions, and prevailing market conditions, such transactions inherently involve the possibility of both profit and loss. This risk-bearing dimension constitutes a fundamental distinction between legitimate trade and *riba* and provides an important conceptual foundation for Islamic financing practices.[4]

[1]Muhammad Hamdan Ainulyaqin, AS Rakhmat, Sarwo Edy, and Siti Maharani, "Analisis Dana Pihak Ketiga (DPK), Risiko dan Fee Based Income (FBI) terhadap Pembiayaan Bagi Hasil pada Bank Umum Syariah," *Indonesian Journal of Islamic Economics and Business* 8, no. 1 (2023): 196–207, https://doi.org/10.30631/ijoieb.v8i1.1875.

[2]Republic of Indonesia, *Law No. 21 of 2008 concerning Sharia Banking* (*Undang-Undang Republik Indonesia Nomor 21 Tahun 2008 tentang Perbankan Syariah*), State Gazette of the Republic of Indonesia 2008, no. 94, Supplement to the State Gazette of the Republic of Indonesia no. 4867 (Jakarta, 2008).

[3] Ministry of Religious Affairs of the Republic of Indonesia, *The Qur'an*, Q.S. al-Baqarah 2:275.

[4]M. Quraish Shihab, *Tafsir Al-Mishbah: Pesan, Kesan, dan Keserasian Al-Qur'an*, vol. 1 (Tangerang: Lentera Hati, 2015).

Table 1. Composition of Financing Distributed by BUS Based on the Agreement (in Billions Of Rupiah)

Year	*Mudharabah*	*Musyarakah*	*Murabahah*	Lease
2015	14 820	60 731	122 111	10 635
2016	15 292	78 421	139 536	9 151
2017	17 090	101 561	150 276	9233
2018	15 866	129 641	154 805	10 579
2019	13 779	157 491	160 654	10 589
2020	11 854	179 919	174 301	8 635
2021	10 185	187 485	190 884	6 908
2022	10 376	223 680	233 046	7 937
2023	12 252	278 161	248 600	9 642

Source: Islamic Banking Statistics Data, processed 2024

Empirical data from the Financial Services Authority (OJK), as presented in Table 1, demonstrate a substantial expansion of financing provided by Islamic Commercial Banks (BUS) between 2015 and 2023, increasing from IDR 208.297 trillion to IDR 548.655 trillion. Within this expanding financing portfolio, *murabahah* has historically occupied a dominant position and served as one of the principal instruments of Islamic bank financing. At the same time, *musyarakah* financing has recorded particularly rapid growth and, according to the data presented in Table 1, surpassed *murabahah* financing in 2023. *Murabahah* financing has become a dominant financing instrument in Indonesian Islamic banking, partly because its sale-based structure provides greater certainty regarding the underlying asset, cost, and agreed profit margin. Its asset-backed and relatively transparent structure can also facilitate risk management and reduce uncertainty in financing transactions.[5]

Despite its longstanding dominance, the volume of *murabahah* financing is shaped by a range of internal banking factors. Previous studies have identified several financial indicators—including the Capital Adequacy Ratio (CAR), Return on Assets (ROA), and Non-Performing Financing (NPF)—as potentially important determinants of financing decisions and financing growth. From the perspective of signaling theory, strong CAR and ROA may convey favorable signals regarding a bank's capital resilience and operational performance, thereby creating greater

[5]Jimmi Qizwini and Nurul Huda, "Murabahah: A Strategic Solution for Credit Risk Mitigation in Islamic Banking," *At-Tijaroh: Jurnal Ilmu Manajemen dan Bisnis Islam* 10, no. 2 (2024), https://doi.org/10.24952/tijaroh.v10i2.14459; Uus Ahmad Husaeni, "The Variables that Affect Murabaha Financing in Islamic Commercial Banks," *International Journal of Nusantara Islam* 4, no. 2 (2016): 1–10, https://doi.org/10.15575/ijni.v4i2.1446.

capacity and confidence to expand financing.[6] However, empirical findings concerning the relationships among these financial indicators and *murabahah* financing remain inconsistent. This empirical inconsistency constitutes an important research problem and provides the basis for further investigation into whether CAR and ROA significantly influence *murabahah* financing and whether NPF alters these relationships.

Table 2. Development of Murabahah Financing, CAR, ROA, and NPF

Year	Total *murabahah* Financing (IDR billion)	CAR	ROA	NPF
2015	93.642	15,02%	0,49%	3,19%
2016	110.063	16,63%	0,63%	2,17%
2017	114.494	17,91%	0,63%	2,58%
2018	118.134	20,39%	1,28%	1,95%
2019	122.725	20,59%	1,67%	1,88%
2020	136.990	21,64%	1,40%	1,57%
2021	144.180	25,71%	1,55%	0,81%
2022	183.266	26,28%	2,00%	0,64%
2023	191.795	25,41%	1,88%	0,63%

Source: Islamic Banking Statistics, processed by the authors (2024).

The data in Table 2 reveal 1an important empirical pattern in the relationship between bank financial performance and *murabahah* financing. From 2015 to 2023, *murabahah* financing increased substantially from IDR 93.642 trillion to IDR 191.795 trillion. Over the same period, CAR generally strengthened, rising from 15.02% in 2015 to 25.41% in 2023, although it declined slightly from 26.28% in 2022. At first glance, the sustained increase in CAR appears consistent with the expectation that stronger capital adequacy enhances a bank's capacity to expand financing. However, the 2022–2023 figures reveal a more complex pattern. CAR declined from 26.28% to 25.41%, while *murabahah* financing continued to increase from IDR 183.266 trillion to IDR 191.795 trillion. This divergence suggests that changes in capital adequacy do not necessarily translate directly into corresponding changes in *murabahah* financing.

A similar pattern emerges in the relationship between ROA and *murabahah* financing. ROA increased from 0.49% in 2015 to 2.00% in 2022, indicating a substantial improvement in the banks' ability to generate

[6]Alwi Zaenudin and Nila Saadati, "The Influence of CAR, ROA, FDR on Murabahah Financing with NPF as Moderating Variable," *Journal of Applied Economics in Developing Countries* 8, no. 2 (2023): 55–61.

earnings from their assets. Nevertheless, ROA declined slightly to 1.88% in 2023, while *murabahah* financing continued to expand from IDR 183.266 trillion to IDR 191.795 trillion. The simultaneous decline in ROA and increase in *murabahah* financing further indicates that profitability alone may not adequately explain changes in financing volume. These contrasting movements highlight the need to examine the relationship between bank financial performance and *murabahah* financing beyond simple bivariate associations.

The empirical patterns observed in Table 2, together with the inconsistent findings reported in previous studies, suggest that the relationship between CAR, ROA, and *murabahah* financing may be contingent upon other financial conditions. One potentially important factor is Non-Performing Financing (NPF), which reflects the quality of a bank's financing portfolio and the level of credit risk associated with its financing activities. A higher NPF may constrain a bank's capacity to expand new financing by increasing risk exposure and weakening asset quality. Consequently, NPF may alter the extent to which capital adequacy and profitability translate into *murabahah* financing growth.

Against this background and the identified research gap, this study investigates the effects of the Capital Adequacy Ratio (CAR) and Return on Assets (ROA) on *murabahah* financing, with Non-Performing Financing (NPF) examined as a moderating variable in Indonesian Islamic Commercial Banks. The study seeks to determine whether NPF changes the relationship between banks' capital adequacy and profitability and their capacity to expand *murabahah* financing.

B. Theoretical Basis

Signal Theory

Signaling theory, originally developed by Michael Spence, explains how parties with greater access to private or internal information communicate signals to parties with less information in order to reduce information asymmetry.[7] In corporate and financial contexts, managers

[7]Michael Spence, "Job Market Signaling," *The Quarterly Journal of Economics* 87, no. 3 (1973): 355–374, https://doi.org/10.2307/1882010; Preztika Ayu Ardheta and Helda Rahmi Sina, "Pengaruh Capital Adequacy Ratio, Dana Pihak Ketiga, Non Performing Financing dan Pembiayaan Murabahah terhadap Profitabilitas," *Jurnal Akuntansi dan Manajemen* 17, no. 2 (2020): 32–38, https://doi.org/10.36406/jam.v17i02.328.

possess more comprehensive information about an institution's financial condition, performance, and future prospects than external stakeholders. Management therefore communicates relevant information through observable signals, including financial statements and financial performance indicators, which enable external stakeholders to assess the institution and adjust their decisions accordingly. Financial reports consequently serve as an important signaling mechanism because they help reduce information asymmetry between management and external stakeholders.[8]

Signaling theory provides a useful framework for explaining how financial information communicates a bank's underlying financial condition to external stakeholders under conditions of information asymmetry. Originating from Spence's seminal work on signaling, the theory posits that informed parties can use observable signals to reduce uncertainty among less-informed parties regarding their quality, condition, and future prospects.[9] In the context of Islamic banking, financial disclosure serves as an important signaling mechanism through which banks communicate information about their financial soundness and performance to investors, regulators, customers, and other stakeholders.[10] Accordingly, key financial indicators such as the Capital Adequacy Ratio (CAR), Return on Assets (ROA), and Non-Performing Financing (NPF) can be interpreted as observable signals of different dimensions of a bank's financial condition. CAR reflects the bank's capacity to absorb risk and maintain capital resilience, ROA signals the efficiency with which assets generate earnings, while NPF provides an indication of financing quality and associated credit risk. These indicators may therefore shape stakeholders' perceptions of a bank's financial strength and its capacity to sustain

[8]Brian L. Connelly et al., "Signaling Theory: A Review and Assessment," *Journal of Management* 37, no. 1 (2011): 39–67, https://doi.org/10.1177/0149206310388419; Isnin Yulia Alfiani Rochman and Sari Andayani, "Signal Theory in the 2022 Window Dressing Anomaly and the Reduction of Bad Credit Risk in the Banking Subsector: A Case Study of the 2023 Recession Issue," *Accountancy* 2, no. 3 (2023): 109–122, https://doi.org/10.55606/akuntansi.v2i3.334.

[9] Michael Spence, "Job Market Signaling," *The Quarterly Journal of Economics* 87, no. 3 (1973): 355–374, https://doi.org/10.2307/1882010

[10] Abdalmuttaleb Musleh Al-Sartawi, "Signaling Theory and the Determinants of Online Financial Disclosure," *Journal of Economic and Administrative Sciences* 34, no. 3 (2018): 237–247, https://doi.org/10.1108/JEAS-10-2017-0103.

financing activities.[11] A high CAR can serve as a positive signal of a bank's capital strength and capacity to absorb financial risks. Strong capital adequacy may enhance stakeholders' confidence in the bank's financial resilience and provide greater capacity to expand financing, including *murabahah* financing. Similarly, a high ROA may signal effective asset utilization and stronger operational performance. Greater profitability can strengthen confidence in the bank's financial condition and potentially support the expansion of financing activities. Conversely, NPF represents a potentially negative signal. A high NPF indicates deteriorating financing quality and greater exposure to financing risk, which may lead banks to adopt more conservative financing policies. Consequently, elevated NPF may weaken the potential positive signals conveyed by CAR and ROA and constrain the expansion of *murabahah* financing.

From this perspective, CAR and ROA represent potentially positive financial signals, whereas NPF represents a potentially negative signal that may alter how these positive indicators translate into financing decisions. Signaling theory therefore provides a theoretical basis for examining not only the direct effects of CAR and ROA on *murabahah* financing but also the potential moderating role of NPF in these relationships.

Capital Adequacy Ratio (CAR)

The Capital Adequacy Ratio (CAR) is a key indicator of a bank's financial soundness and its capacity to absorb losses arising from the risks associated with its operations.[12] CAR measures the extent to which a bank maintains sufficient capital relative to its risk exposure and, therefore, reflects the bank's capacity to identify, manage, and withstand financial risks,[13] A higher CAR generally indicates a stronger capital buffer, enabling a bank to absorb unexpected losses while maintaining the continuity of its operations and financing activities. In Indonesia, the capital adequacy

[11] Syifa Nurmilla Fathiyyah and Muhammad Muflih, "Determinants of Islamic Banking Profitability: A Comparative Analysis of Indonesia and Malaysia," *Jurnal Ekonomi Syariah Teori dan Terapan* 10, no. 4 (2023): 391–402, https://doi.org/10.20473/vol10iss20234pp391-402

[12] Kasmir, *Analisis Laporan Keuangan*, 12th ed. (Depok: Rajawali Pers, 2019).

[13] International Monetary Fund. Monetary and Capital Markets Department. "Indonesia: Financial Sector Assessment Program-Detailed Assessment of Observance-Basel Core Principles for Effective Banking Supervision", *IMF Staff Country Reports* 2024, 273 (2024), Article A001, A001, accessed Aug 11, 2026, https://doi.org/10.5089/9798400286216.002.A001

framework is regulated by the Financial Services Authority (OJK), including OJK Regulation No. 34/POJK.03/2016, which establishes minimum capital requirements for banks based on their risk profile. CAR is calculated by comparing a bank's eligible capital with its Risk-Weighted Assets (RWA), whereby assets are weighted according to their respective levels of risk.[14] Thus, CAR provides an important measure of a bank's financial resilience and its capacity to support sustainable financing activities.

Return On Assets (ROA)

Return on Assets (ROA) is a profitability ratio that measures a bank's ability to generate net income from the assets it controls.[15] The ratio provides an indication of how effectively management utilizes the bank's asset base to generate earnings. According to Toto Prihadi, ROA measures the ability of a business unit to generate profits from the assets employed, with a higher ROA generally indicating stronger profitability and more effective asset utilization. Similarly, Kasmir describes ROA as a measure of the return generated from the total assets employed by an organization and as an indicator of management's effectiveness in utilizing its resources to generate profits.[16] In the context of Islamic banking, a higher ROA indicates greater efficiency in converting the bank's asset base into earnings and may therefore reflect stronger operational performance. Accordingly, ROA serves as an important indicator for assessing the profitability and financial performance of Islamic Commercial Banks.

[14] Nur Hidayanty, Julia, and Abu Nizarudin, "The Effect of Capital Adequacy Ratio, Third Party Funds, Loan to Deposit Ratio on Profitability with Interest Rates as a Moderating Variable (Banking Companies Listed on the IDX),"*JEMSI (Journal of Economics, Management, and Accounting)* 9, no. 4 (2023): 1423–30, https://doi.org/10.35870/jemsi.v9i4.1348.

[15] Kasmir, *Analisis Laporan Keuangan,* 2019.

[16] Ika Meutia, Syawal Harianto, and Khairil Fata, "Pengaruh Pembiayaan Murabahah, Mudharabah, dan Biaya Operasional terhadap Return on Asset Bank Umum Syariah dan Unit Usaha Syariah di Indonesia," *el-Amwal* 1, no. 2 (2018), https://doi.org/10.29103/el-amwal.v1i2.1347

Murabahah Financing

Murabahah financing is a sale-and-purchase contract in which an Islamic bank purchases an asset required by a customer and subsequently sells it to the customer at the acquisition cost plus an agreed profit margin. The bank must disclose the original acquisition cost and the profit margin transparently, allowing both parties to enter into the transaction with clear knowledge of the contractual price. The term *murabahah* is derived from the Arabic root associated with profit (*ribh*), and, in the terminology of Islamic jurisprudence (*fiqh*), refers to a sale in which the seller discloses the original cost of the goods and adds a mutually agreed profit margin.[17] *Murabahah* financing in Indonesia, is governed by the applicable accounting standards, including PSAK 102, and is based on Fatwa No. 04/DSN-MUI/IV/2000 issued by the National Sharia Council of the Indonesian Ulema Council (DSN-MUI).[18] The fatwa stipulates, among other requirements, that the bank must acquire the goods lawfully in accordance with Sharia principles and disclose the acquisition cost and relevant expenses to the customer.[19] Although the bank is formally responsible for acquiring the asset, the customer may, in practice, identify or source the goods on the bank's behalf, subject to the contractual arrangements and applicable Sharia requirements.

The *murabahah* financing process generally begins with the customer's financing application, followed by the bank's assessment of the application and acquisition of the requested asset. The bank then sells the asset to the customer at a disclosed cost plus an agreed profit margin. The parties subsequently establish the payment terms, including the payment schedule and other contractual conditions, before the transaction is completed through the delivery and acceptance of the asset. The customer then fulfils the agreed payment obligations in accordance with the *murabahah* contract.[20] In this study, *murabahah* financing is operationally

[17] Nonie Afrianty, Desi Isnaini, and Amimah Oktarina, *Lembaga Keuangan Syariah* (Bengkulu: CV Zigie Utama, 2020).
[18] Ikatan Akuntan Indonesia, *Pernyataan Standar Akuntansi Keuangan 102: Akuntansi Murabahah* (Jakarta: Ikatan Akuntan Indonesia, 2019).
[19] Dewan Syariah Nasional–Majelis Ulama Indonesia, *Fatwa Dewan Syariah Nasional No. 04/DSN-MUI/IV/2000 tentang Murabahah* (Jakarta: Dewan Syariah Nasional–Majelis Ulama Indonesia, 2000), 1 April 2000.
[20] Ismawati, Muh. Taufik, and Annisa Fitri, "The Influence of Mudharabah, Musyarakah, and Murabahah Financing on Islamic Commercial Banks in Indonesia (Study on Islamic

measured by the total amount of *murabahah* financing disbursed by Islamic Commercial Banks. This indicator reflects the scale of the banks' *murabahah* financing activities and provides a measurable basis for examining how capital adequacy, profitability, and financing risk relate to the expansion of *murabahah* financing.

Non-Performing Financing (NPF)

Non-Performing Financing (NPF) is a key indicator of financing quality and asset quality in Islamic banking. It reflects the extent to which customers fail to fulfill their contractual financing obligations, particularly when installment payments become overdue or otherwise cease to perform in accordance with the agreed terms.[21] The NPF ratio measures the proportion of non-performing financing relative to the total financing extended by an Islamic bank and therefore provides an important indication of the level of financing risk borne by the institution.

A high NPF ratio signals deteriorating financing quality and elevated exposure to financing risk. Persistent non-performing financing can reduce expected revenue, increase the costs associated with financing recovery and risk management, and ultimately place pressure on bank profitability. Conversely, a lower NPF ratio generally indicates better financing quality and lower exposure to financing risk, thereby supporting more stable financial performance. NPF is therefore not merely an indicator of asset quality; it also provides an important signal of the bank's capacity to manage financing risk and sustain the quality of its financing portfolio.

Commercial Banks in Indonesia 2015-2019)" *Journal of Islamic Accounting and Finance* 1, no. 1 (2020): 1–15, https://journal.uin-alauddin.ac.id/index.php/ibef.

[21] Nanda Suryadi and Burhan, "The Effect of Mudharabah, Murabahah, and Musyarakah Financing on Profitability with NPF as a Moderating Variable in Islamic Commercial Banks," *Management Studies and Entrepreneurship Journal* 3, no. 1 (2022): 169–183; Herni Ali and Miftahurrohman, "Determinan yang Mempengaruhi Pembiayaan Murabahah pada Perbankan Syariah di Indonesia," *Esensi: Jurnal Bisnis dan Manajemen* 6, no. 1 (2016): 31–44, https://doi.org/10.15408/ess.v6i1.3119.

C. Research Methods

This study employed a quantitative approach using an associative research design to examine the relationships among the variables under investigation. The study relied on secondary data obtained from the financial reports and Islamic Banking Statistics of Islamic Commercial Banks registered with the Financial Services Authority (OJK). The population comprised 14 Islamic Commercial Banks registered with OJK during the study period.

Table 3. List of Islamic Commercial Banks

No.	Islamic Commercial Bank
1.	PT. Bank Aceh Syariah
2.	PT. BPD Riau Kepri Syariah
3.	PT. BPD West Nusa Tenggara Syariah
4.	PT. Bank Muamalat Indonesia
5.	PT. Bank Victoria Syariah
6.	PT. Bank Jabar Banten Syariah
7.	PT. Bank Syariah Indonesia, Tbk
8.	PT. Bank Mega Syariah
9.	PT. Bank Panin Dubai Syariah
10.	PT. Bank Syariah Bukopin
11.	PT. BCA Syariah
12.	PT. Sharia Pension Savings Bank
13.	PT. Bank Aladin Syariah, Tbk
14.	PT. Bank Nano Syariah

Source: Islamic Banking Statistics, processed by the authors (2024).

The study selected its sample using purposive sampling, a non-probability sampling technique in which observations are selected according to predetermined inclusion criteria relevant to the research objectives. Based on these criteria, six Islamic Commercial Banks were selected as the research sample: PT BPD Riau Kepri Syariah, PT BPD West Nusa Tenggara Syariah, PT Bank Muamalat Indonesia, PT Bank Mega Syariah, PT BCA Syariah, and PT Bank Aladin Syariah, Tbk. The study analyzed data from these six banks covering the 2015–2023 observation period.

D. Discussion

The Effect of the Capital Adequacy Ratio (CAR) on *Murabahah* Financing

Table 4. Partial t-Test Results

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Constant	1.978.445.103,497	146.251.867,719		13,528	0,000
	CAR	-781.093.475,785	161.756.603,453	-0,557	-4,829	0,000
	ROA	2.351.358.283,191	2.675.613.286,510	0,101	0,879	0,384
a. Dependent Variable: *Murabahah* financing						

Source: SPSS Version 25

The partial *t*-test results indicate that CAR has a statistically significant negative effect on *murabahah* financing. The significance value for CAR is 0.000, which is below the 0.05 threshold, while the standardized regression coefficient is negative ($\beta = -0.557$). The *t*-statistic of −4.829 further confirms the statistical significance of the relationship. These results indicate that, within the sample and observation period examined, higher capital adequacy is associated with lower levels of *murabahah* financing. The unstandardized coefficient (B = −781,093,475.785) indicates that a one-unit increase in CAR is associated with a decrease of approximately IDR 781.09 million in *murabahah* financing, holding the other variables constant. Accordingly, the first hypothesis, which proposed a positive and significant effect of CAR on *murabahah* financing, is rejected.

The negative relationship observed in the regression analysis is also reflected in the descriptive pattern presented in Table 2. Between 2022 and 2023, CAR declined slightly from 26.28% to 25.41%, while total *murabahah* financing increased from IDR 183.266 trillion to IDR 191.795 trillion. Although this year-to-year movement does not by itself establish a causal relationship, it is consistent with the negative coefficient identified in the regression model. The contrasting movement of the two indicators therefore provides an empirical illustration of the inverse association between CAR and *murabahah* financing observed in the sample.

One possible explanation is that a relatively high level of capital adequacy may encourage banks to adopt a more conservative capital-management strategy. Rather than immediately converting excess capital capacity into additional financing, banks may prioritize maintaining a strong capital buffer to absorb potential risks and preserve financial

resilience. Conversely, when CAR declines while remaining within the applicable regulatory framework, banks may have greater incentives to utilize their available capital more actively through financing activities. From this perspective, the negative CAR coefficient may reflect a trade-off between maintaining capital strength and expanding financing rather than indicating that stronger capitalization is inherently detrimental to *murabahah* financing.

The Effect of Return on Assets (ROA) on Murabahah Financing

Table 5. Partial t-Test Results

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.978.445.103,497	146.251.867,719	—	13,528	0,000
	CAR	-781.093.475,785	161.756.603,453	-0,557	-4,829	0,000
	ROA	2.351.358.283,191	2.675.613.286,510	0,101	0,879	0,384
a. Dependent Variable: *Murabahah* financing						

Source: SPSS Version 25

The partial *t*-test results indicate that ROA does not have a statistically significant effect on *murabahah* financing. The significance value of 0.384 exceeds the 0.05 threshold, while the *t*-statistic is 0.879. These results indicate that variations in ROA are not statistically associated with changes in the volume of *murabahah* financing in the sample. Although the regression coefficient is positive ($\beta = 0.101$), the magnitude of this coefficient is insufficient to establish a statistically significant relationship. Accordingly, the second hypothesis, which proposed that ROA has a positive and significant effect on *murabahah* financing, is rejected.

The descriptive data in Table 2 provide further context for this finding. Although ROA generally improved during the observation period—from 0.49% in 2015 to 2.00% in 2022—*murabahah* financing did not exhibit a proportional response to changes in profitability. For example, ROA declined slightly from 2.00% in 2022 to 1.88% in 2023, whereas *murabahah* financing continued to increase from IDR 183.266 trillion to IDR 191.795 trillion. This contrasting movement suggests that bank profitability, as measured by ROA, does not independently determine the expansion of *murabahah* financing. Financing decisions may instead reflect a broader set of considerations, including capital adequacy, financing quality, liquidity, risk management, funding availability, and overall

business strategy. Thus, the positive direction of the ROA coefficient does not translate into a statistically significant effect on *murabahah* financing.

The Moderating Role of Non-Performing Financing (NPF) in the Relationship between CAR and Murabahah Financing

Table 6. Moderated Regression Analysis: CAR × NPF

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Constant	2.140.935.841,197	194.259.283,079	—	11,021	0,000
	CAR x NPF	-37.074.528.063,600	39.903.058.516,265	-0,163	0,929	0,357
	ROA x NPF	43.459.762.794,376	142.155.925.650,639	0,063	0,306	0,761
a. Dependent Variable: *Murabahah* financing						

Source: SPSS Version 25

The moderated regression analysis indicates that NPF does not significantly moderate the relationship between CAR and *murabahah* financing. The interaction term between CAR and NPF has a significance value of 0.357, which exceeds the 0.05 threshold, and its standardized coefficient is negative ($\beta = -0.163$). Although the negative coefficient indicates the direction of the interaction, its statistical insignificance means that there is insufficient evidence to conclude that NPF systematically changes the relationship between CAR and *murabahah* financing. Accordingly, the hypothesis proposing that NPF significantly moderates the relationship between CAR and *murabahah* financing is rejected.

From an Islamic banking perspective, CAR reflects a bank's capacity to absorb risk and maintain sufficient capital to support its operations. NPF, by contrast, primarily captures the quality of the bank's existing financing portfolio and its exposure to financing risk. Although NPF may affect a bank's overall risk profile and financing policy, it does not necessarily alter the relationship between capital adequacy and the volume of *murabahah* financing. Banks may determine their financing capacity on the basis of broader considerations, including capital requirements, liquidity, funding sources, risk appetite, and strategic objectives. Consequently, the absence of a significant CAR × NPF interaction suggests that financing quality, as represented by NPF, does not materially condition the relationship between CAR and *murabahah* financing within the sample examined.

The Moderating Role of Non-Performing Financing (NPF) in the Relationship between ROA and Murabahah Financing

Table 7. Moderated Regression Analysis: ROA × NPF

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Constant	2.140.935.841,197	194.259.283,079		11,021	0,000
	CAR x NPF	-37.074.528.063,600	39.903.058.516,265	-0,163	-0,929	0,357
	ROA x NPF	43.459.762.794,376	142.155.925.650,639	0,063	0,306	0,761
a. Dependent Variable: *Murabahah* financing						

Source: SPSS Version 25

The moderated regression results further demonstrate that NPF does not significantly moderate the relationship between ROA and *murabahah* financing. The ROA × NPF interaction term has a significance value of 0.761, which is substantially above the 0.05 threshold, while its standardized coefficient is positive (β = 0.063). The positive coefficient indicates the direction of the estimated interaction; however, because the interaction is statistically insignificant, the analysis provides insufficient evidence that changes in NPF systematically strengthen or weaken the relationship between ROA and *murabahah* financing. Therefore, the hypothesis proposing a significant moderating effect of NPF on the relationship between ROA and *murabahah* financing is rejected.

The descriptive pattern in Table 2 is broadly consistent with the absence of a significant moderating effect. During the 2015–2023 observation period, ROA increased from 0.49% in 2015 to 2.00% in 2022, while NPF declined from 3.19% to 0.64%. Over the same period, *murabahah* financing increased substantially, reaching IDR 183.266 trillion in 2022. In 2023, however, ROA declined slightly to 1.88% and NPF remained relatively stable at 0.63%, while *murabahah* financing continued to increase to IDR 191.795 trillion. These movements illustrate that changes in profitability and financing quality do not necessarily produce proportional changes in *murabahah* financing.

The absence of a significant ROA × NPF interaction suggests that the relationship between profitability and *murabahah* financing does not materially depend on the level of NPF in the observed sample. In other words, variations in financing quality, as reflected by NPF, do not provide

sufficient statistical evidence that they systematically alter the relationship between a bank's profitability and its *murabahah* financing decisions. The expansion of *murabahah* financing may instead reflect a combination of profitability, capital structure, liquidity, funding availability, risk management, and strategic considerations. Accordingly, NPF should be viewed as an important indicator of financing quality and risk, but its role as a moderator of the ROA–*murabahah* financing relationship is not supported by the empirical evidence of this study.

The Simultaneous Effects of the Capital Adequacy Ratio (CAR) and Return on Assets (ROA) on Murabahah Financing

Table 8. Results of the F-Test

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19720212206927233000,000	2	9860106103463617000,000	13,124	0,000[b]
	Residual	38315114709984715000,000	51	751276759019308160,000	—	—
	Total	58035326916911950000,000	53	—	—	—
a. Dependent Variable: Murabahah's financing						
b. Predictors: (Constant), ROA, CAR						

Source: SPSS Version 25

The F-test results in Table 8 demonstrate that CAR and ROA jointly have a statistically significant effect on *murabahah* financing. The model produces an F-statistic of 13.124 with a significance value of 0.000, which is below the 0.05 threshold. The F-statistic also exceeds the reported critical value of 3.18, further supporting the statistical significance of the overall regression model. Accordingly, the hypothesis stating that CAR and ROA simultaneously affect *murabahah* financing is supported.

These findings indicate that although CAR and ROA do not necessarily exert statistically significant effects individually in the same manner, their combined contribution provides significant explanatory power for variations in *murabahah* financing. The result suggests that financing decisions cannot be adequately understood by considering capital adequacy or profitability in isolation. Rather, the two indicators collectively capture important dimensions of a bank's financial capacity and performance that are relevant to its financing activities.

Table 9. Coefficient of Determination (R^2)

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson

1	0,583[a]	0,340	0,314	866.762.227,49916	1,622
a. Predictors: (Constant), ROA, CAR					
b. Dependent Variable: Murabahah's financing					

Source: SPSS Version 25

The coefficient of determination provides further evidence regarding the explanatory capacity of the regression model. As shown in Table 9, the model has an R value of 0.583 and an R^2 value of 0.340. This indicates that CAR and ROA jointly explain approximately 34.0% of the variation in *murabahah* financing. After adjusting for the number of predictors in the model, the adjusted R^2 is 0.314, indicating that approximately 31.4% of the variation in *murabahah* financing can be explained by CAR and ROA. The remaining 68.6% is attributable to other factors not included in the model.

The descriptive trends presented in Table 2 provide additional context for the joint significance of CAR and ROA. Between 2015 and 2023, *murabahah* financing increased substantially from IDR 93.642 trillion to IDR 191.795 trillion. During much of this period, CAR and ROA also improved, with CAR increasing from 15.02% in 2015 to 26.28% in 2022 and ROA rising from 0.49% to 2.00% over the same period. A particularly notable increase occurred between 2021 and 2022, when *murabahah* financing rose from IDR 144.180 trillion to IDR 183.266 trillion alongside increases in CAR and ROA. However, these descriptive patterns should be interpreted cautiously. The simultaneous movement of CAR, ROA, and *murabahah* financing does not, by itself, establish a causal relationship. Rather, the F-test provides the statistical evidence that CAR and ROA jointly contribute to explaining variation in *murabahah* financing within the regression model. This finding is consistent with Syahyana's research, which reports a simultaneous effect of CAR and ROA on *murabahah* financing.[22] Taken together, the results suggest that capital strength and profitability constitute complementary dimensions of Islamic banks' financial condition and, when considered jointly, provide meaningful explanatory power for murabahah financing decisions.

E. Conclusion

The findings of this study demonstrate that the Capital Adequacy Ratio (CAR) has a negative and statistically significant effect on *murabahah* financing in Indonesian Islamic Commercial Banks. This result indicates that higher capital adequacy is associated with lower levels of

[22] Ahmad Syahyana, "Pengaruh Dana Pihak Ketiga, Capital Adequacy Ratio, Non-Performing Financing, Return on Assets dan Financing to Deposit Ratio terhadap Pembiayaan Murabahah pada Bank Aceh Pasca Konversi" (undergraduate thesis, UIN Ar-Raniry Banda Aceh, 2019).

murabahah financing. One possible explanation is that banks with stronger capital positions may adopt more conservative financing policies and prioritize the maintenance of capital buffers and financial resilience over financing expansion. In contrast, Return on Assets (ROA) has a positive but statistically insignificant effect on *murabahah* financing. This finding suggests that bank profitability, as measured by ROA, does not independently explain variations in *murabahah* financing during the observation period.

The study further demonstrates that Non-Performing Financing (NPF) does not significantly moderate either the relationship between CAR and *murabahah* financing or the relationship between ROA and *murabahah* financing. Thus, the level of non-performing financing does not provide sufficient statistical evidence that it systematically strengthens or weakens the relationships between capital adequacy, profitability, and *murabahah* financing. Although NPF remains an important indicator of financing quality and risk, its moderating role in the relationships examined in this study is not supported by the empirical evidence.

Despite the absence of a significant partial effect of ROA, the simultaneous test shows that CAR and ROA jointly have a statistically significant effect on *murabahah* financing. The regression model further indicates that these two variables jointly explain 34.0 percent of the variation in *murabahah* financing, with an adjusted R^2 of 31.4 percent. These findings underscore that *murabahah* financing decisions cannot be adequately understood through a single financial indicator. Instead, they reflect the combined contribution of capital adequacy and profitability alongside other factors not captured by the model. Accordingly, Islamic Commercial Banks should manage capital adequacy and profitability in an integrated manner while maintaining prudent risk management and supporting the sustainable development of *murabahah* financing.

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