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THE ROLE OF CAPITAL ADEQUACY IN MEDIATING THE EFFECT OF GREEN FINANCING ON THE FINANCIAL PERFORMANCE OF ISLAMIC BANKING: PATH ANALYSIS APPROACH

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Abstract:

Green financing is financing that supports sustainable development. The Financial Services Authority (OJK) is a state institution that supports sustainable finance, this is reinforced by regulations that encourage financial institutions to contribute to environmentally friendly activities. One of the financial institutions that implement green financing is Islamic banking. Banks are not only required to improve environmental sustainability, but also improve financial performance. This study aims to determine the role of capital adequacy in mediating the influence of Green Financing on the financial performance of Islamic banking in Indonesia. The population in this study is all Islamic commercial banks registered in the FSA, while the sample is determined through purposive sampling method. The data analysis method used is path analysis. The results showed that Green financing has a significant effect on financial performance. Capital adequacy has no significant effect on financial performance. Green financing has no significant effect on capital adequacy. Thus, it can be concluded that capital adequacy does not act as a mediation of the influence of green financing on the financial performance of Islamic banks in Indonesia.

Keywords : Capital Adequacy, Green Financing, Financial Performance, Islamic Banking

Introduction

Climate change and environmental degradation are becoming increasingly prevalent throughout the world, including in Indonesia. Environmental degradation can cause forest destruction, decreased soil fertility, increased pollution, threatened flora and fauna, disrupted food chains, and even natural disasters. Therefore, sustainable development is necessary to address these issues. Sustainable development is a conscious and planned effort that integrates environmental, social, and economic aspects into development strategies to ensure environmental integrity and the safety, capabilities, welfare, and quality of life of current and future generations (Undang Undang No 32, 2009). One of

the contributions of the financial sector in supporting sustainable development is through the implementation of green financing.

Green financing is financial investment that cares about the environment, climate change, environmentally friendly energy, and accountable management in all sectors (Urban & Wojcik, 2019). This commitment to sustainable finance is further strengthened by regulations from the Financial Services Authority (OJK) that encourage financial institutions, including Islamic banking, to integrate sustainability principles into their financing activities.

Islamic banking is a financial institution that acts as a bridge between parties with excess funds and those with insufficient funds. Through this process, banking is commonly referred to as an intermediary institution. The role of banks as intermediary institutions will help improve the welfare of the community and stabilise Indonesia's economic conditions. The important role of banks is essential for sustainable development. Through banks, investments in sustainable projects can be carried out properly.

Islamic banking is an institution that applies the principle of Maqashid Syariah (realising human welfare). This principle is in line with sustainable development, where sustainable development aims to save the earth and realise human welfare. The existence of green financing is expected to enable banks to not only reap financial benefits, but also support activities that preserve the environment. The profits obtained through this financing are expected to improve the company's financial performance. The implementation of green financing not only has an impact on non-financial aspects, but also affects the financial performance of Islamic banking.

According to Shofwatun (2021), financial performance is an analysis used to measure a company's accuracy in applying financial rules properly and correctly. Financial performance is defined as the achievements in the financial field that a company has achieved in an accounting period (Hutabarat, 2020). Financial performance is measured by profitability ratios, which are used to measure a company's ability to generate profits. According to Kasmir (2019), the types of profitability are Gross Profit Margin (GPM), Net Profit Margin (NPM), Return on Equity (ROE), and Return on Assets (ROA). In this study, the ratio used is ROE.

Return on Equity (ROE) is the ability of a bank to generate profits based on its equity. ROE describes how much of the company's own capital is used to generate profits (Astr iJaya, et al., 2023). Green financing is financing used for environment-based projects, which will certainly receive support from various communities, so that the projects will generate high profits and the profit sharing received by banks will also be high. The profits from financing activities will improve the Company's financial performance. The results of research by Anggaini et al. (2022) and Thansania et al. (2025) show that green financing affects profitability. Shakira (2025) shows that green banking has a significant

effect on the profitability of Islamic commercial banks. Meanwhile, research by Hasanah and Hariyono (2022) shows that green financing does not affect financial performance.

Capital is the owners' contribution to supporting the Company's operational activities (Widiana, 2022). In Islamic banking, capital is needed to finance all banking activities, including financing. Capital adequacy is the minimum amount of capital that banks must have to carry out their activities. The value of capital adequacy is regulated in banking regulations. To assess the capital adequacy of a bank, the Capital Adequacy Ratio (CAR) is usually used. This ratio measures the adequacy of capital owned by banks to support assets that contain risk (Kasmir, 2019). An example of an asset that contains risk is financing. Green financing is a type of financing that is profitable but also has financial risks. Therefore, the amount of green financing will affect the capital adequacy of Islamic banks.

Previous research results have shown inconsistent results. Therefore, further research is needed on the relationship between green financing, the Capital Adequacy Ratio (CAR), and the financial performance of Islamic banks in Indonesia. Based on the above description, the purpose of this study is to determine the role of capital adequacy in mediating the effect of green financing on the financial performance of Islamic banks in Indonesia.

Research Method

This research is associative in nature, whereby the researcher will analyse the relationship between green financing, capital adequacy and financial performance. The research approach used is quantitative, meaning that the researcher analyses numerical data and describes the results of the research. The data source used is secondary data in the form of financial reports and sustainability reports of Islamic banks which can be accessed through the official website of the Financial Services Authority (OJK) https://www.ojk.go.id/id/.

The population of this study is all Islamic banks registered with the Financial Services Authority (OJK). Meanwhile, the sample will be selected using purposive sampling, a method that selects samples based on certain criteria. The criteria set by the researcher are as follows:

1. Islamic commercial banks registered with the OJK for the past 5 years
2. Islamic commercial banks that have published complete financial data during the research period, namely 2020-2024.
3. Islamic commercial banks that support and provide environmentally-based financing
4. Islamic commercial banks that have data on green financing, Capital Adequacy Ratio (CAR) and Return On Equity (ROE).

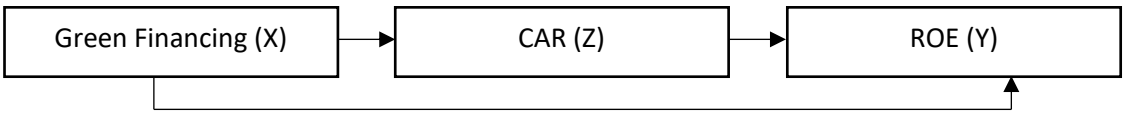
Based on the sample selection that has been carried out, the samples in this study are as follows:

Table 1. Research Sample

No	Islamic commercial banks
1	PT Bank BCA Syariah
2	PT Bank Syariah Indonesia Tbk (BSI)
3	PT Bank Mega Syariah
4	PT Bank Muamalat Indonesia Tbk
5	PT Bank NTB Syariah
6	PT Bank Victoria Syariah.

Source: Financial Services Authority, processed data (2026)

The data analysis used in this study is path analysis. According to Ghozali (2018), path analysis is an extension of multiple linear regression, which is used to examine the causal relationship between research variables. The research variables consist of an independent variable (X), which is green financing, a mediating variable (Z), which is the Capital Adequacy Ratio (CAR), and a dependent variable (Y), which is Return On Equity (ROE). The relationship between these variables can be seen in Figure 1.



Gambar 1. Path Diagram

(Sumber; data processed by researcher, 2026)

Results And Discussion

Results

Descriptive statistics

Research variables are key to answering a problem in a study. The variables in this study consist of independent variables, dependent variables , and mediation. The independent variable in this study is green financing (GF), the dependent variable is Return On Equity (ROE), while the variable that will be the link between the independent and dependent variables is the Capital Adequacy Ratio (CAR). The statistical description of these research variables can be seen in Table 2.

Table 2. Descriptive statistics

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Green Financing	30	17,58	14084,00	2156,60	3780,10
CAR	30	15,21	149,68	34,24	24,42
ROE	30	-0,10	28,48	7,77	6,98

Sumber: SPSS output, processed data (2026)

Table 2 shows that the minimum value of green financing is 17.58 billion, which belongs to Bank Victoria Syariah in 2023. This means that Bank Victoria disbursed the least amount of green financing for sustainable development compared to other Islamic banks during the research period. Meanwhile, the maximum value of green financing is 14.08 trillion. This value was obtained by Bank Syariah Indonesia in 2024. This means that Bank BSI was able to become the Islamic bank that disbursed the largest amount of green financing during the research period. The average green financing over 5 years was 2.16 trillion.

The minimum Capital Adequacy Ratio (CAR) is 15.21%. This CAR is the ratio of Muamalat Bank in 2020. This means that Muamalat Bank has the minimum capital that carries the greatest risk compared to other Islamic banks. However, this CAR ratio can be categorised as healthy, because the minimum CAR value according to the OJK is 8% (OJK, 2016). The maximum CAR value is 149.68%, which was achieved by Bank Victoria Syariah in 2022. Meanwhile, the average CAR for Islamic banks in Indonesia is 34.24%.

The minimum Return on Equity (ROE) value is -0.10%, which was achieved by Bank Victoria Syariah in 2020. This condition is not favourable for Islamic banking. ROE is a ratio that shows the ability of a bank to generate profits; the higher the value of this ratio, the better the bank's ability to generate profits. However, in this case, Bank Victoria Syariah has a negative ROE, which means that the bank's financial performance is poor. Table 2 shows that the highest ROE value of 28.48% was achieved by Mega Syariah Bank in 2021. This means that Mega Syariah Bank is able to generate profits well. The capital it has can be utilised effectively to generate profits. The average ROE value for Islamic banking is 7.77%.

Path Analysis

Path analysis is an analysis used to determine the role of moderating variables in the relationship between independent and dependent variables. In this case, the moderating variable is capital adequacy, which is analysed using the Capital Adequacy Ratio (CAR). Meanwhile, the independent variable is green financing, which is analysed using the value of environment-based financing. The dependent variable is financial performance, which will be measured using the Profitability ratio, specifically Return On Equity (ROE). The significance value used is 5%. This means that if the significance value is less than 0.05, there is a significant effect. Conversely, if the significance value is greater than 0.05, the results are not significant. The path analysis results are presented in the following table.

Table 3. Results of Path Analysis of Green Financing Variables on Financial Performance

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

1	(Constant)	5.757	1.293		4.452	.000
	Green Financing	.001	.000	.507	3.113	.004

a. Dependent Variable: Finansial Performance

Sumber: SPSS output, processed data (2026)

Table 3 shows that the results of testing green financing on financial performance show a significance value of 0.004. This value is less than 5%, meaning that green financing has a significant effect on the financial performance of Islamic banks in Indonesia. The amount of green financing will affect banking financial performance. The results of testing the path analysis of the green financing variable on capital adequacy can be seen in Table 4.

Table 4. Results of Green Financing Path Analysis on Capital Adequacy

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	37.993	5.053		7.519	.000
	Green Financing	-.002	.001	-.269	-1.480	.150

a. Dependent Variable: Capital Adequacy

Sumber: SPSS output, processed data (2026)

Table 4 shows that the significance value of the green financing variable on capital adequacy is 0.150. This means that green financing does not have a significant effect on the capital adequacy of Islamic banks. The amount of green financing disbursed does not affect banking capital adequacy. The results of testing the path variable of capital adequacy on financial performance can be seen in Table 5.

Table 5. Results of Path Analysis of Capital Adequacy on Financial Performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	11.103	2.126		5.222	.000
	Capital Adequacy	-.097	.051	-.340	-1.910	.066

a. Dependent Variable: Financial Performance

Sumber: SPSS output, processed data (2026)

As shown in Table 5, the significance value of capital adequacy on financial performance is 0.66. This means that capital adequacy also has no significant effect on the financial performance of companies. Therefore, it can be concluded that capital adequacy does not play a role in mediating between green financing and the financial performance of Islamic banks in Indonesia.

Discussion

Green Financing on financial performance

Financial performance is the achievement of Islamic banking in an accounting period. Islamic banking is a financial institution that is required to improve its financial performance to maintain the trust of the public and stakeholders. This is because banking is an institution that is closely related to the community. Islamic banking will seek funds in the form of savings, current accounts and deposits. The more public trust in banks, the greater the opportunity for banks to obtain funds. Funds obtained from the public will be processed into financing in order to obtain profits in the form of profit sharing. The higher the profits obtained by banks, the better their financial performance.

Islamic banking offers various types of financing, one of which is green financing. This financing supports activities related to renewable energy, the environment, and sustainable MSMEs. The existence of green financing is expected to enable the public to have businesses that can preserve the environment. For Islamic banking, the implementation of green financing is expected to generate profits and improve financial performance. The results of the study show that green financing has a significant effect on the financial performance of Islamic banking in Indonesia. This means that the amount of green financing distributed to the public will affect the financial performance of Islamic banking. The greater the green financing, the higher the financial performance of Islamic banking. Conversely, the smaller the green financing disbursed, the greater the impact on the decline in the financial performance of Islamic banking. Green financing is environmentally friendly financing, and projects in this field certainly provide great opportunities for profit. The higher the profit generated by customers, the higher the profit sharing received by Islamic banks.

The results of this study are in line with research conducted by Anggaini, et al. (2022), Shakira (2025) and Thansania, et al. (2025), which shows that green financing affects profitability. In general, green financing is a long-term project that will benefit banks. These benefits will have a positive impact on the financial performance of Islamic banks in Indonesia.

Green Financing and Capital Adequacy

Capital adequacy is the minimum amount of capital that banks must have to carry out their operational activities. Islamic banking is a financial institution that acts as an intermediary. Banks collect funds from the public in the form of wadiah, mudharabah current accounts and mudharabah deposits, then distribute them in the form of financing. To implement this principle, Islamic banks must have a minimum amount of capital that carries risk.

Green financing is a form of financing applied by Islamic banks, specifically provided to customers who have environmentally friendly projects and businesses. The results of the study show that green financing does not affect capital adequacy. This means that the amount of green financing does not affect the adequacy of capital for Islamic banking. This is because the portion of green financing is still relatively small compared to other types of financing. In addition, green financing is fully supported by various parties, both the government and the public. Therefore, businesses engaged in sustainable development will be profitable and do not carry any risk.

Capital Adequacy and Financial Performance

The capital adequacy variable in this study is measured by the Capital Adequacy Ratio (CAR). This ratio reflects the ability of Islamic banking to manage risk through minimum capital. The function of this ratio is to protect customer funds and absorb the risk of losses from banking activities. Meanwhile, the Financial Performance variable is measured using the Profitability ratio. This ratio is used to determine a company's ability to generate profits.

The results of the study show that capital adequacy does not affect financial performance. This means that the size of a Islamic bank's minimum capital does not affect its financial performance. Factors that affect financial performance generally originate from bad debt, bank liquidity, operational costs, and market risk. Therefore, capital adequacy is not a factor that causes high or low financial performance in Islamic banking. This research is in line with the research conducted by Shakira (2025) that the Capital Adequacy Ratio (CAR) does not have a significant effect on the profitability of Islamic Commercial Banks.

Conclusion

Conclusion Financial performance is the achievement of Islamic banks over a certain period. Every company is required to improve its financial performance to maintain the trust of its stakeholders. The same applies to Islamic banking. Islamic banks are institutions that are vulnerable to all kinds of financial risks. To maintain customer trust, Islamic banks must be able to assess the factors that can affect their financial performance. This study has six samples of Islamic banks with the research variables of financial performance, green financing, and capital adequacy. The results show that green financing has a significant effect on financial performance, but green financing does not have a significant effect on capital adequacy. Meanwhile, capital adequacy does not affect the financial performance of Islamic banking. Therefore, it can be concluded that capital adequacy does not play a mediating role between green financing and the financial performance of Islamic banking in Indonesia.

The results of this study do not fully describe the factors that influence the financial performance of Islamic banking. It is hoped that further research will examine various aspects that may influence the financial performance of Islamic banking, such as liquidity, bad debt, operating expenses to operating income, foreign exchange risk, and profit sharing risk.

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