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The Effect of ROA, NPF, and BOPO on Zakat Distribution in Islamic Commercial Banks in Indonesia for the Period 2021–2024

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ABSTRACT

This study analyzes the influence of Return on Assets (ROA), Non-Performing Financing (NPF), and Operating Expenses to Operating Income Ratio (BOPO) on zakat disbursement at Sharia Commercial Banks (BUS) in Indonesia during the 2021–2024 period. A quantitative approach was employed using panel data regression techniques via Eviews 12. The results indicate that, while ROA, NPF, and BOPO do not have a significant individual effect on zakat distribution, they do have a significant combined effect. These findings provide theoretical implications that reinforce the Shariah Enterprise Theory, demonstrating that Islamic banks are capable of separating their business ambitions from their spiritual obligations. Fluctuations in financial figures on the income statement do not shake the bank's commitment to fulfilling the rights of the mustahik. Practically, these results demonstrate the integrity of Islamic banking in upholding the trust of Shariah, where difficult economic conditions or internal inefficiencies are not used as excuses for zakat distribution.

Kata Kunci: Return On Assets, Non-Performing Financing, Beban Operasional Pendapatan Operasional, Zakat Perusahaan

ABSTRAK

Penelitian ini menganalisis pengaruh Return On Assets (ROA), Non-Performing Financing (NPF), dan Beban Operasional Pendapatan Operasional (BOPO) terhadap penyaluran zakat pada Bank Umum Syariah (BUS) di Indonesia periode 2021-2024. Menggunakan pendekatan kuantitatif dengan teknik regresi data panel melalui Eviews 12. Hasil penelitian secara parsial menunjukkan bahwa ROA, NPF, dan BOPO tidak berpengaruh signifikan terhadap penyaluran zakat tetapi berpengaruh secara simultan. Temuan ini memberikan implikasi teoretis yang



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memperkuat *Syariah Enterprise Theory*, di mana bank syariah terbukti mampu memisahkan ambisi bisnis dari kewajiban spiritualnya. Naik turunnya angka keuangan di laporan laba rugi tidak menggoyahkan komitmen bank untuk memenuhi hak para mustahik. Secara praktis, hasil ini membuktikan integritas perbankan syariah dalam menjaga amanah syariat, di mana kondisi ekonomi yang sulit atau inefisiensi internal tidak dijadikan alasan dalam penyaluran zakat.

INTRODUCTION

Islamic banking emerged because the majority of the population in Indonesia is Muslim, according to the Ministry of Religious Affairs of the Republic of Indonesia (2020), which cites demographic data indicating that Indonesia's Muslim population stands at 229.62 million, or approximately 87.2% of the country's total population. Consequently, the growth of Islamic banking has accelerated significantly, as evidenced by year-over-year increases, although this growth reflects that Islamic banking in Indonesia has a positive impact (Bela et al., 2024).

The implementation of existing systems in Islamic banking must comply with Islamic law, under which every Islamic bank is required to pay zakat. One type of zakat that Islamic banks are required to pay is corporate zakat. Therefore, Islamic banks are expected to pay corporate zakat in accordance with the regulations.

From both a religious and a legal perspective, Islamic banking in Indonesia must fulfill its social functions in accordance with existing regulations. Article 11, Paragraph 2, Point b of Law No. 38 of 1999 states that "Trade and business are assets subject to zakat." Zakat management in Indonesia is regulated by Law No. 23 of 2011 on Zakat Management, which states in Article 1, Paragraph (2) that zakat is wealth that must be paid by a Muslim or business entity to be given to those entitled to receive it in accordance with Islamic law (Hadi, 2021).

According to the law, collected zakat is distributed based on the principles of equity, justice, and regional representation. Through the integration of zakat management, it is ensured that the potential and actual collection of zakat from all regions, as well as the benefits of zakat for poverty alleviation, will be more accurately measured based on data and more closely monitored in terms of the performance of the managing institutions. Overall, the articles in the law and government regulations currently being drafted provide the framework and guarantees for the realization of zakat management that is trustworthy, professional, transparent, accountable, and participatory (Indrayani, 2025).

Table 1. Potential and Actual Zakat Expenditures of Sharia Commercial Bank

No.	Bank Name	Zakat Rate 2,5% x Profit	Zakat Realization in 2024
1	Bank Aceh Syariah	14.383.900.000	14.753.000.000
2	BPD Riau Kepri Syariah	10.590.575.000	0



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3	BPD Nusa Tenggara Barat Syariah	7.360.450.000	7.360.000.000
4	Bank Muamalat Indonesia	510.368.625	4.639.734.000
5	Bank Victoria Syariah	650.000.000	0
6	Bank Jabar Banten Syariah	44.601.175	0
7	Bank Syariah Indonesia, Tbk	232.061.400.000	232.060.000.000
8	Bank Mega Syariah	8.080.575.000	8.288.000.000
9	Bank Panin Dubai Syariah, Tbk	2.686.175.000	2.686.000.000
10	Bank Syariah Bukopin	38.680.000	0
11	BCA Syariah	5.740.000.000	0
12	Bank Tabungan Pensiunan Nasional	33.829.900	0
13	Bank Aladin Syariah, Tbk	1.843.175.000	0
14	Bank Nano Syariah	4.479.025.000	134.000.000
	JUMLAH	288.502.753.800	269.920.734.000

Source: Annual Report of Sharia Commercial Bank 2024 (<https://www.ojk.go.id>)

Table 1.1 shows that the potential zakat revenue for Islamic banks amounts to Rp 288,502,753,800, while the actual amount collected is Rp 269,920,734,000. Consequently, there remains Rp 18,582,019,800 in Islamic bank zakat funds that have not yet been distributed. The impact on conventional Islamic banks that do not pay corporate zakat is the failure to fulfill the Sharia principles that form the basis of Islamic banking operations. The large number of Islamic banks that have not yet conducted business in accordance with Sharia principles is one of the issues hindering the development of Islamic banking. The public remains unclear about the identity of Islamic banks and doubts their ability to adhere to Sharia principles. Additionally, the social impact is the widening gap between the rich and the poor. If Islamic banks distribute zakat to the communities surrounding them, the public's perception of Islamic banks will be significantly strengthened.

Zakat is heavily influenced by profit; to gauge the magnitude of a company's profit, one can examine its profitability, where Return on Assets (ROA) serves as the primary indicator for assessing a bank's management in generating profit from the management of its assets. The higher the ROA value, the more efficiently the bank utilizes its assets to generate net profit. On the other hand, a bank's financial health is inextricably linked to the quality of its Non-Performing Financing (NPF), which serves as a risk benchmark to gauge how effectively the bank can minimize problematic financing that could hinder profit growth. As a business entity, a bank has a strong interest in achieving efficiency. The banking sector's operational efficiency ratio can be measured using the BOPO (Operating Expenses to Operating Income). BOPO is often referred to as the efficiency ratio, used to assess management's ability to control operating expenses relative to operating income. The lower this ratio, the more efficiently the bank in



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question manages its operating expenses, thereby reducing the likelihood of the bank facing financial difficulties.

Companies that pay zakat are sending a signal that distinguishes them from other companies that do not pay zakat. Companies that pay zakat signal that they are transparent in all their activities. Positive recognition from stakeholders fosters their commitment, leading them to remain loyal and provide support for the company. Stakeholder loyalty will enhance operational efficiency for the company and improve its profitability.

However, in reality, there are still several Islamic banks in Indonesia that do not regularly distribute their zakat funds. According to research conducted by Dzunurain, only five Islamic banks (Bank Muamalat, Bank Syariah Mandiri, Bank Mega Syariah, Bank BRI Syariah, and PT. Bank BNI Syariah) consistently distribute corporate zakat, where the independent variables namely profitability, proxied by Return on Assets (ROA), and firm size, proxied by Total Assets have an effect on zakat expenditures with a coefficient.

Several studies on ROA, NPF, and BOPO in relation to zakat distribution by BUS have been compiled. However, the results of previous studies have been mixed. For example, a study conducted by (Fitria et al., 2022) ROA has a significant impact on zakat expenditures. Meanwhile, (Dimas Arisandi, 2024) According to the journal, ROA has no significant effect on BUS zakat expenditures in Indonesia. According to (Wahyudi, 2015) The NPF variable does not have a significant effect on zakat. However, in the study (Yusnita et al., 2019) The NPF variable influences BUS zakat expenditures. The study conducted (Dimas Arisandi, 2024) BOPO influences zakat expenditures. Meanwhile, research conducted (Bela et al., 2024) The BOPO ratio does not affect zakat disbursements. Based on empirical evidence and varying research findings, the author is motivated to further examine the impact of return on assets (ROA), non-performing financing (NPF), and the ratio of operating expenses to operating income (BOPO) on zakat disbursements at Islamic commercial banks in Indonesia during the 2021–2024 period.

LITERATURE REVIEW

Syariah Enterprise Theory

Syariah Enterprise Theory explains the concept of corporate social responsibility (CSR), specifically for shareholders from an Islamic perspective. Shareholders include God, humanity, and nature from this perspective Syariah Enterprise Theory (Fitria et al., 2022) The relationship between Sharia Enterprise Theory and zakat is that when a Sharia bank pays zakat, it fulfills its obligation to Allah SWT. Furthermore, Sharia Enterprise Theory can assist management in running the company in accordance with Islamic principles, as it embodies the values of justice, truth, honesty, trustworthiness, and accountability, and is internalized through the principle of tauhid (Hadi, 2021).

Return on Assets (ROA)

Return on Assets is a ratio that reflects a bank's ability to manage its funds. Return on Assets is a ratio used to measure a company's capacity to generate profits through investment



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activities, thereby assessing the bank's productivity in managing its funds. Return on Assets is used to measure management's ability to generate profits from all financial activities undertaken. The higher the Return on Assets, the higher the company's profit margin, and the better the company's performance in utilizing its assets. (Oktaviana, 2020). Therefore, the Return on Assets (ROA) ratio can be calculated using the following formula:

$$ROA = \frac{\text{Net Profit After Tax}}{\text{Total Assets}} \times 100\%$$

Criteria for assessing Return on Assets according to BI (2007) are:

Rank	Criteria	Description
1	ROA < 1,5%	Very Good
2	1,25% < ROA < 1,5%	Good
3	0,5% < ROA < 1,25%	Fairly Good
4	0% < ROA < 0,5%	Not Good
5	ROA < 0%	Poor

Source: SEBI Appendix No.9/24/DPbS tahun 2007

Non-Performing Financing (NPF)

Non-Performing Financing (NPF) refers to the proportion of financing that is past due, classified as substandard, doubtful, or in default. One of the key metrics used to evaluate a bank's performance is Non-Performing Financing (NPF). NPF can be used to indicate the level of financial or credit risk (Luluk Veriana, 2023). The NPF ratio can be expressed as follows:

$$NPF = \frac{\text{non - performing loans}}{\text{Total Financing}} \times 100\%$$

Criteria for assessing non-performing financing according to BI (2007) are:

Rank	Criteria	Description
1	NPF < 2%	Very Good
2	2% < NPF < 5%	Good
3	5% < NPF < 8%	Fairly Good
4	8% < NPF < 12%	Not Good
5	NPF < 12%	Poor

Source: SEBI Appendix No.9/24/DPbS tahun 2007



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Operating Expenses to Operating Income (BOPO)

The BOPO (Operating Expenses to Operating Income) ratio is an efficiency metric used to measure a bank's management's ability to control operating expenses relative to operating income. The lower this ratio, the more efficiently the bank manages its operating expenses, thereby reducing the likelihood that the bank is in financial distress. It can be concluded that the higher the BOPO ratio, the greater the likelihood that the bank is in financial distress. The formula used is:

$$\text{BOPO} = \frac{\text{operating costs}}{\text{operating income}} \times 100\%$$

Criteria for assessing Operating Expenses to Operating Income to BI (2007) are:

Rank	Criteria	Description
1	BOPO < 83%	Very Good
2	83% < BOPO < 85%	Good
3	85% < BOPO < 87%	Fairly Good
4	87% < BOPO < 89%	Not Good
5	BOPO > 90%	Poor

Source: SEBI Appendix No.9/24/DPbS tahun 2007

Corporate Zakat

Corporate zakat is a new phenomenon, so it is rarely found in classical fiqh texts. Contemporary scholars have established the legal basis for corporate zakat through the process of qiyas, specifically by analogy to zakat on trade. Corporate zakat is nearly identical to zakat on trade and investment. The difference is that corporate zakat is collective in nature. This trend began with the initiative of modern Muslim entrepreneurs and managers to pay corporate zakat. Muslim scholars helped develop this system, and eventually the BAZ (Zakat Collection Agency) and LAZ (Zakat Management Institution) also helped strengthen its implementation. Scholars and international conferences have analogized corporate zakat to trade zakat, because from a legal and economic perspective, the core of a company's activities is based on trading or commerce. Therefore, its nishab is the same as that of trade zakat, namely 85 grams of gold. (Muhammad, 2016)

According to contemporary scholars of Islamic jurisprudence, the legal basis for corporate zakat stems from the general obligation to pay zakat as stated in the words of Allah SWT in At-Taubah (9): 103.

خُذْ مِنْ أَمْوَالِهِمْ صَدَقَةً تُطَهِّرُهُمْ وَتُزَكِّيهِمْ بِهَا وَصَلِّ عَلَيْهِمْ إِنَّ صَلَاتَكَ سَكَنٌ لَهُمْ وَاللَّهُ سَمِيعٌ عَلِيمٌ



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Meaning: “Take zakat from a portion of their wealth; through it, you purify and sanctify them, and pray for them. Indeed, your prayer brings them peace of mind. And Allah is All-Hearing and All-Knowing.”

Zakat is a pillar of Islam that has been specifically prescribed; its essence leads to equality of rights, compassion, mutual aid, and the elimination of every path of evil that could threaten virtue, comfort, prosperity, and the various pillars of worldly and otherworldly well-being. On the other hand, Allah has made zakat a means of purification for those who give it from the disgrace of stinginess, as well as a way to foster material morality in the face of the calamity of scarcity, and as a means of ensuring equality of rights among His servants—specifically, as assistance from the wealthy to their poor brothers and sisters, namely those who lack the ability to earn wealth and do not have the strength to work (Hannani, 2017).

In Law of the Republic of Indonesia No. 38 of 1999 on the Management of Zakat, Chapter IV, Article 11, Paragraph (2), Subparagraph (b), it is stated that among the objects subject to the obligation to pay zakat are businesses or companies. The first international conference on zakat in Kuwait (29 Rajab 1404 H) declared that the obligation to pay zakat is closely related to companies. According to the conference’s findings, companies are categorized as *syakhsan i’tiban* (legal entities considered as persons) or *syakhsiyah hikmiyah*; therefore, companies are included among *muzakki* or subjects of zakat. In fact, in Indonesia itself, there is already a Fatwa from the Indonesian Ulema Council (MUI) that mandates corporate zakat.

In general, Islamic teachings on the economy of the Muslim community emphasize zakat as a means of fulfilling the obligation to set aside a portion of one’s wealth—a portion that rightfully belongs to those who are eligible to receive it. Similarly, there is a strong encouragement to practice *infaq* and *sadaqah* as a manifestation of the importance of wealth redistribution and the fight against poverty (Budiono, 2022). According to Islamic scholars, corporate zakat is analogous to zakat on trade; therefore, the calculation method, *nishab*, and other requirements also follow those of zakat on trade. The *nishab* is 85 grams of gold, the asset must have been held for a full year (*haul*), and the rate is 2.5%.

RESEARCH METHOD

Types and Approaches to Research

This study employs a quantitative research design with a descriptive approach, utilizing secondary data obtained from the financial statements of Sharia Commercial Banks registered with the Financial Services Authority (OJK) for the period 2021–2024. Quantitative research methods can be defined as research methods based on the philosophy of positivism, used to study a specific population or sample; sampling techniques are generally conducted randomly; data collection uses research instruments; and data analysis is quantitative/statistical in nature, with the aim of testing established hypotheses.



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Study Location and Time

This study was conducted on Islamic commercial banks in Indonesia that are registered with the Financial Services Authority (OJK). The study utilized financial statements for the period 2021–2025.

Population and Sample

The population in this study consists of all Sharia Commercial Banks (SCBs) in Indonesia that are officially registered with the Financial Services Authority, totaling 14 Sharia Commercial Banks.

A sample is a subset of the population that shares similar characteristics with the population itself. The existing population will be selected using specific techniques and methods to form a sample. The method used in this study is Non-Probability Sampling with a Purposive Sampling approach. Purposive Sampling is a sampling method that involves setting specific criteria. The use of the Purposive Sampling method aims to obtain a representative sample based on the following criteria:

1. The company is a Sharia Commercial Bank that has been officially registered with the Financial Services Authority for the 2021–2024 period.
2. Has published complete Annual Financial Reports for the years 2021–2024.
3. A Sharia Commercial Bank that has distributed zakat consecutively from 2021 to 2024.

Based on the above criteria, the sample for this study consists of: Bank Syariah Indonesia Tbk (BSI), Bank Mega Syariah (BMS), Bank Muamalat Indonesia Tbk (BMI), Bank Panin Dubai Syariah Tbk (PNBS), and Bank Aceh Syariah (BAS).

Data Analysis Techniques

Data analysis techniques are the methods used to identify and process information based on collected data, ensuring that research findings are more valid and easier for readers to understand (Abigail et al, 2023). The data analysis technique used in this study is panel data analysis. Panel data is a combination of time series and cross-section (Sholahuddin & Purwaningtyas, 2018)

Selection of Panel Data Regression

According to (Etika et al., 2024) The selection of the panel data regression model using the Chow test and the Hausman test is as follows:

1. Uji *Chow* is a test to determine whether a common effects model (CEM) or a fixed effects model (FEM) is most appropriate for estimating panel data (Wijaya, 2022), with the following criteria:
 $H_0 = \text{CEM model selected (Prob} > 0,05)$
 $H_1 = \text{FEM model selected (Prob} < 0,05)$
2. Uji *Hausman* test is a test to determine whether a fixed-effects model or a random-effects model is the most appropriate to use. The criteria for the results are as follows:



H_0 = REM model selected (Prob > 0,05)

H_1 = FEM model selected (Prob < 0,05)

Classical Assumption Test

The purpose of classical assumption tests is to ensure that a model can be analyzed and produces representative results; therefore, the model must satisfy these classical assumptions. Commonly used classical assumption tests include the normality test, the multicollinearity test, the heteroscedasticity test, the autocorrelation test, and the linearity test (Aghna et al., 2024)

1. Normality Test is used to determine whether the data obtained follows a normal distribution or not (Sonjaya et al., 2025). The methods used to determine whether the residuals are normally distributed are the histogram method and the Jarque-Bera test. Based on the probability threshold, if the p-value of the JB statistic is greater than or equal to 0.05, then H_0 is accepted and H_1 is rejected because the JB statistic is close to zero. Conversely, if the probability value of the JB statistic is less than 0.05, then H_0 is rejected and H_1 is accepted because the value of the JB statistic is not equal to zero.
2. The multicollinearity test is designed to determine whether the regression model reveals any correlation among the independent variables (Sari & Rahayu, 2022). Multicollinearity refers to the presence of high correlations among independent variables. In addition, correlation tests between independent variables are also used to detect signs of multicollinearity. If there are pairs of variables with a Pearson correlation coefficient greater than 0.80, this indicates the presence of significant multicollinearity (Wibowo, 2025)
 - a. The heteroscedasticity test aims to determine whether there is unequal variance in the residuals from one observation to another within the regression model (Wulandari & Efendi, 2022). If the variance of the residuals remains constant across observations, this is referred to as homoscedasticity. If the variance differs, it is referred to as heteroscedasticity. A good regression model is one that is homoscedastic, meaning there is no heteroscedasticity. In this study, the Glazer test was used, which involves regressing each independent variable against the absolute residuals as the dependent variable. The test employed in this study is the Glazer test. The hypotheses used in the heteroscedasticity test are as follows:
 - b. If the significance value is greater than > 0,05 then the data does not exhibit heteroscedasticity.
 - c. If the significance value is less than < 0,05 then the data exhibit heteroscedasticity
 - d. Autocorrelation test is a statistical analysis conducted to determine whether there is a correlation between the variables in a predictive model and changes over time. Therefore, if the assumption of autocorrelation holds in a predictive model, the values are no longer independently distributed but are instead autocorrelated. An autocorrelation test in a linear regression model must be performed if the data is time series data. This is because autocorrelation essentially refers to a situation where a value in a specific sample or observation is significantly influenced by the value of the



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previous observation. One way to detect autocorrelation is through the Durbin-Watson test. The Durbin-Watson test yields a Durbin-Watson (DW) value, which is then compared to two values from the Durbin-Watson table: the Durbin Upper (DU) and the Durbin Lower (DL). The absence of autocorrelation can also be denoted as follows: $DU < DW < 4 - DU$

Panel Data Analysis

Panel data is a combination of cross-sectional and time-series data. This means that the data consists of multiple observations and spans multiple periods. Panel data is more complex because it combines time-series and cross-sectional data (Muthmainnah et al., 2022). Regression using panel data is known as panel data regression. There are several advantages to using panel data regression. First, it generates more data, resulting in a greater number of degrees of freedom. Second, combining the two datasets helps address issues that arise when dealing with omitted variables

There are several methods commonly used to estimate regression models with panel data, namely Common Effect, Fixed Effect dan Random Effect (Nursan, 2025).

1. **Common Effect Models.** This is the simplest panel data model approach because it combines only time-series and cross-sectional data. In this model, neither the time dimension nor the individual dimension is taken into account, so it is assumed that a firm's behavior remains constant across different time periods. This method can use the Ordinary Least Squares (OLS) approach or least-squares techniques to estimate the panel data model.
2. **Fixed Effect Models.** This model assumes that differences between individuals can be accommodated through differences in their intercepts. To estimate panel data, the Fixed Effects model uses a dummy variable technique to capture differences in intercepts between companies. Differences in intercepts can occur due to differences in work culture, management, and incentives. However, the slope is the same across companies. This estimation model is often referred to as the *Least Squares Dummy Variable* (LSDV).
3. **Random Effect Models.** This model assumes that individual differences can be accounted for by differences in the intercepts. To estimate panel data using the Fixed Effects model, dummy variables are employed to capture differences in intercepts across firms; these differences may arise from variations in work culture, management practices, and incentives. However, the slopes remain constant across firms. This estimation method is also commonly referred to as the Least Squares Dummy Variable (LSDV) technique.

Hypothesis Test

Hypothesis testing provides a preliminary answer to the research question. A hypothesis is a data analysis that plays a crucial role in addressing the research question and proving the research hypothesis. In this study, three hypothesis tests were used, namely:

1. **Coefficient of Determination Test (R^2).** The coefficient of determination is useful for showing what percentage of the variation in the dependent variable can be explained by the



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regression equation based on the variation in the independent variables, with the remainder explained by other variables. A problem with the regression coefficient is that the R^2 value increases as the number of independent variables increases. This is illogical and inappropriate when applied to multiple linear regression with many independent variables. Therefore, an adjustment to R^2 is needed, which is referred to as adjusted R^2 . The calculation of adjusted R^2 is as follows:

$$\text{Adj } R^2 = 1 - (T-1) / (T-K) \{ (1 - R^2) \}$$

This adjusted R^2 measures the percentage of variation in the dependent variable that can be explained by the resulting regression equation; the remaining variation is attributed to factors outside the model, taking into account the number of independent variables included in the model.

2. T-test indicates the extent to which a single independent variable explains the dependent variable on its own (Nurwani, 2020). Regression coefficients are used to determine the partial effect of independent variables on the dependent variable. The hypotheses used in this study are:
 - a. If the calculated t-value is less than the critical t-value and the significance level is greater than 0.05, it can be concluded that there is no significant relationship between the independent and dependent variables.
 - b. If the calculated t-value is greater than the critical t-value and the significance level is less than 0.05, it can be concluded that there is a significant relationship between the independent and dependent variables.
3. F-test. The F-test is used to determine whether the independent variables (X) collectively have an effect on the dependent variable (Y). The basis for decision-making in the F-test is:
 - a. If the significance value is < 0.05 . This means that the independent variables collectively have a simultaneous effect on the dependent variable.
 - b. If the significance value is > 0.05 . This means that the independent variables collectively have a simultaneous effect on the dependent variable.

RESEARCH AND DISCUSSION

Model Selection in Panel Data Regression

Chow Test Results

Table 5. Chow Test Results

	Statistic	d.f.	Prob.
Cross-section F	50.468631	(3,9)	0.0000
Cross-section Chi-square	46.087726	3	0.0000

Source: Author processed data, 2026



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Referring to table 5, we can see that the chi-square probability value is $0.0000 < 0.05$. This indicates that the appropriate panel data regression model to select is *Fixed Effect Model* (FEM).

Hausman Test Results

Table 6. Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	151.405894	3	0.0000

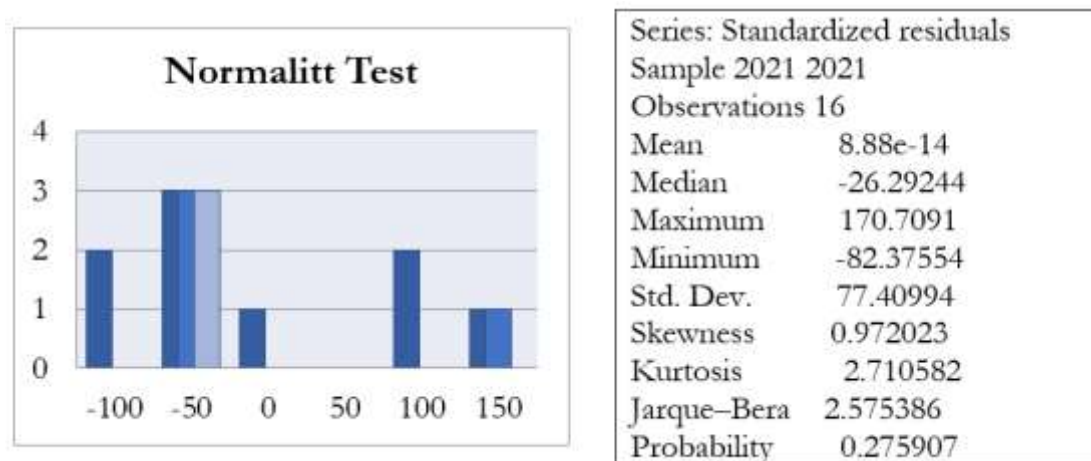
Source: Author processed data, 2026

Referring to table 6, we can see that the p-value is $0.0000 < 0.05$. This indicates that the appropriate panel data regression model to choose is *Fixed Effect Model* (FEM).

Classical Assumption Test

Normality Test Results

Figure 1. Normality Test



Source: Author processed data, 2026

The results of the normality test show that the Jarque-Bera probability value is $0.275 > 0.05$, so it can be concluded that the data are normally distributed.

Multicollinearity Test Results

Table 7. Multicollinearity Test Results

	X1	X2	X3
X1	1.000000	0.150496	-0.723396
X2	0.150496	1.000000	-0.161016
X3	-0.723396	-0.161016	1.000000

Source: Author processed data, 2026



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The correlation coefficients for X1 and X2 are $0.150496 < 0.80$. The correlation coefficients between X1 and X3 are $-0.723396 < 0.80$, and between X2 and X3 are $-0.161016 < 0.80$. Therefore, it can be concluded that the data is free from multicollinearity or passes the multicollinearity test.

Heteroscedasticity Test Results

Table 8. Heteroscedasticity Test Results

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	-692.5777	619.0526	-1.118770	0.2851
X1	92.67334	82.75420	1.119863	0.2847
X2	13.16952	20.38083	0.646172	0.5303
X3	7.123564	5.945599	1.198124	0.2540

Source: Author processed data, 2026

From the results above, it can be seen that the p-values for each independent variable are greater than 0.05. Therefore, it can be concluded that there is no heteroscedasticity in this study.

Autocorrelation Test Results

Table 9. Autocorrelation Test Results

Durbin-Watson on stat	1.790272
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Source: Author processed data, 2026

Given that $N = 20$ and there are 3 independent variables (K), the results obtained from the Durbin-Watson reference table with $\alpha = 5\%$ are as follows: DL value = 0.9976, 4-DL value = 3.0024, DU value = 1.6763, 4-DU value = 2.3237, DW (Durbin-Watson) value = 1.7902. Results of the Durbin-Watson Autocorrelation Test: $DU < DW < 4-DU = 1.6763 < 1.7902 < 2.3237$. The data does not exhibit autocorrelation or passes the autocorrelation test.

Panel Data Regression Analysis

Based on the results of the model selection test in the panel data regression, the best model selected is the Fixed Effects Model (FEM). The following is the panel data regression using the FEM:

Table 10. FEM Test Results

Dependent Variable: Y
Method: Panel Least Squares
Date : 01/14/26 Time: 16:41
Periods included: 4



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Cross- s ections included: 4				
Total panel (balanced) observations: 4				
Variable	Coefficient	Std. Error	t -S tatistic	Prob.
C	-444.6542	275.8649	-1.611855	0.1415
X1	60.37480	37.72138	1.600546	0.1439
X2	-10.70146	10.60425	-1.009167	0.3393
X3	5.200348	2.621331	1.983857	0.0786
Effects Specification				
Cross- section fixed (dummy variables)				
R-squared	0.951903	Mean dependent var	60.84856	
Adjusted R-squared	0.919838	S.D. dependent var	83.60809	
S.E. of regression	23.67185	Akaike info criterion	9.466086	
Sum squared resid	5043.209	Schwarz criterion	9.804094	
Log likelihood	-68.72869	Hannan -Quinn criter.	9.483395	
F -statistic	29.68690	Durbin -Watson stat	1.505063	
Prob (F –statistic)	0.000019			

Source: Author processed data, 2026

Based on the table above, the following multiple linear regression equation is obtained: -
 $444.654206368 + 60.374 X1 - 10.701 X2 + 5.200 X3$

1. The constant value obtained is -444.654, meaning that in the absence of the variables ROA (X1), NPF (X2), and BOPO (X3), the variable ZAKAT (Y) would increase by -444.654.
2. The coefficient value of the ROA (X1) variable is 60.374; if the values of the other variables remain constant and the X1 variable increases by 1%, then the ROA (Y) variable will increase by 60.374. Conversely, if the other variables remain constant and the value of variable X1 decreases by 1%, the value of variable Y will decrease by 60.374.
3. The coefficient of variable NPF (X2) is -10.701 if the values of the other variables remain constant and the value of variable X2 increases by 1%. Then the ROA variable (Y) will decrease by -10.701. Conversely, if all other variables remain constant and the X2 variable decreases by 1%, the Y variable will increase by -10.701.
4. The coefficient value of the BOPO variable (X3) is 5.200 if the values of the other variables are constant and the X3 variable increases by 1%. Then the ROA variable (Y) will increase by



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5.200. Conversely, if the values of the other variables are constant and the X3 variable decreases by 1%, the Y variable will decrease by 5.200.

Hypothesis Test Results

Coefficient of Determination Test (R^2)

Table 11. Coefficient of Determination Test Results (R^2)

R-squared	0.951903
Adjusted R-squared	0.919838
S.E. of regression	23.67185
Sum squared resid	5043.209
Log like lihood	-68.72869
F-statistic	29.68690
Prob (F-statistic)	0.000019

Source: Author processed data, 2026

Based on the table above, the R-squared value is 0.951903, indicating that 95.19% of the variation in the dependent variable is explained by the independent variables, while the remaining 4.81% is attributed to other variables not included in this study.

T-test

Table 12. T-test Results

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	-444.6542	275.8649	-1.611855	0.14115
X1	60.37480	37.72138	1.600546	0.1439
X2	-10.70146	10.60425	10.60425	0.3393
X3	5.200348	5.200348	2.621331	0.0786

Source: Author processed data, 2026

1. The results of the t-test for the ROA variable (X1) yielded a calculated t-value of 1.600546, which is less than the critical t-value of 2.10092204, and a significance level of 0.1439, which is greater than 0.05. Therefore, H0 is accepted and H1 is rejected, meaning that the ROA variable does not have an effect on the zakat of Sharia Commercial Banks in Indonesia.
2. The results of the t-test for the NPF variable (X2) yielded a calculated t-value of -1.009167, which is less than the critical t-value of 2.10092204, and a significance level of 0.3393, which is greater than 0.05. Therefore, H0 is accepted and H1 is rejected, meaning that the NPF variable does not affect zakat at Sharia Commercial Banks in Indonesia.
3. The results of the t-test on the BOPO variable (X3) yielded a calculated t-value of 1.983857 < the critical t-value of 2.10092204, and a significance level of 0.0786 > 0.05. Therefore, H0 is accepted and H1 is rejected, meaning that the BOPO variable does not affect zakat at Sharia Commercial Banks in Indonesia.



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F-test

Table 13. F-test Results

R-squared	0.951903
Adjusted R-squared	0.919838
S.E. of regression	23.67185
Sum squared resid	5043.209
Log like lihood	-68.72869
F-statistic	29.68690
Prob (F-statistic)	0.000019

Source: Author processed data, 2026

The calculated F-value of 29.68690 is greater than the table F-value of 3.530568, and the significance level of 0.000019 is less than 0.05; therefore, H₀ is rejected and H_a is accepted, meaning that the variables ROA, NPF, and BOPO have an effect on the zakat of Sharia Commercial Banks in Indonesia.

Analysis of The Effect of ROA, NPF, and BOPO on Zakat Distribution in Islamic Commercial Banks in Indonesia

Return on Assets (ROA) was found to have no significant impact on the distribution of zakat. Islamic banks tend to use the Net Working Capital method to calculate zakat, whereby the zakat obligation is tied to the existence of current assets that have reached the nisab threshold, rather than solely to the current year's net profit. This aligns with the Shariah Enterprise Theory (SET), in which management regards Allah SWT as the true owner of the assets. Thus, zakat is viewed as a right of the mustahik that is fulfilled consistently, without having to wait for the bank's profit graph to rise.

Non-Performing Financing (NPF) does not have a significant impact on the distribution of zakat. The high risk of non-performing financing (NPF) does not diminish the bank's commitment to paying zakat. Although an increase in NPF requires banks to set aside substantial loss reserves, this does not necessarily reduce the portion of zakat distributed. This argument is based on Stewardship Theory, in which the management of Islamic banks acts as trustees who view zakat as an instrument for the "purification" of wealth. From a managerial perspective, banks recognize that maintaining consistency in zakat distribution amidst business risks is an effort to preserve their reputation and the blessings of their operations. Zakat remains a distribution priority because it is a mandatory religious obligation, as commanded in Surah At-Taubah: 103.

The Operating Expense to Operating Income Ratio (BOPO) does not have a significant impact on a company's zakat distribution. Although BOPO reflects the bank's operational efficiency in the income statement, it does not affect zakat distribution because the majority of zakat funds managed in the zakat fund sources and distribution report originate from deposits by zakat payers and external parties, not solely from the net profit portion. Therefore, internal cost



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inefficiencies within the bank do not hinder the bank's social function in distributing the collected zakat funds.

The results of the simultaneous test indicate that ROA, NPF, and BOPO collectively have a significant effect on zakat distribution. This demonstrates a synergistic effect among the variables; specifically, a bank's capacity to distribute zakat is the cumulative result of its profit performance, financing risk management, and overall operational efficiency. In other words, these financial indicators only have a tangible impact on zakat distribution policies when viewed as a unified set of the company's fundamental conditions. This finding confirms that the sustainability of zakat distribution remains dependent on the bank's holistic financial health, even though individually these variables do not demonstrate strong dominance.

CONCLUSION

The insignificance of ROA influence on zakat distribution indicates that Islamic banks do not consider the size of net profit as the sole determinant of zakat distribution. This suggests that fluctuations in a bank's profitability do not automatically alter the amount of zakat distributed. Theoretically, this finding aligns with the Shariah Enterprise Theory (SET), which states that Islamic banks have a vertical responsibility to Allah SWT. In this context, zakat is often viewed as a fixed obligation based on a certain percentage of capital or profit that has reached the nisab threshold; thus, management consistently distributes it as a form of shariah compliance.

The Non-Performing Financing (NPF) variable was found to have no significant effect on zakat disbursement. This finding is noteworthy because it indicates that even as the level of non-performing financing risk increases, banks' commitment to distributing zakat remains unimpeded. The underlying rationale for this is the application of Stewardship Theory, wherein Islamic bank managers act as stewards who prioritize the trust placed in them to safeguard the public interest. Zakat remains a priority for distribution because it is a mandatory religious obligation, as commanded by Allah SWT in Surah At-Taubah: 103, which emphasizes the function of zakat to purify and sanctify wealth.

The level of operating expenses (BOPO) does not hinder the bank's social function. This is because the zakat funds managed by Islamic banks do not originate solely from within the company but also include funds collected from external parties (customers and the public). From a managerial perspective, this finding confirms that Islamic banks in Indonesia continue to carry out their social functions independently of corporate operational cost pressures, in accordance with the mandate of Law No. 21 of 2008 on Islamic Banking, which separates the commercial and social functions of banks.

SUGGESTION

The author acknowledges that his knowledge and experience are still very limited; therefore, he hopes that future researchers will be able to present research findings that are better and of higher quality than those presented here. The author offers the following suggestions:

1. For academics, it is hoped that future researchers wishing to address a similar topic can



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include variables not yet covered in this study.

2. For companies, it is hoped that the results of this study can serve as a basis for evaluating, improving, and enhancing financial performance so that zakat distribution can increase.

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