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DETERMINANTS OF ISLAMIC BANKING MSME FINANCING IN INDONESIA 2015-2024

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ABSTRACT

This study examines the influence of macroeconomic and socio-economic indicators on the distribution of Islamic banking financing to Micro, Small, and Medium Enterprises (MSMEs) in Indonesia over the period 2015–2024. Using a quantitative approach with multiple linear regression analysis and secondary time-series data from the Financial Services Authority (OJK), Bank Indonesia (BI), and Statistics Indonesia (BPS), this research analyzes the effects of Gross Domestic Product (GDP), Open Unemployment Rate (TPT), poverty rate, inflation, and BI 7-Day Reverse Repo Rate (BI7DRR) on MSME financing (OS_PUMKM). The findings reveal that poverty rate negatively and significantly affects MSME financing, while TPT and BI7DRR demonstrate positive and significant effects. Conversely, GDP growth and inflation show no significant influence on MSME financing distribution. These results indicate that Islamic bank MSME financing is more sensitive to socio-economic conditions, particularly poverty and unemployment, rather than macroeconomic indicators such as inflation and economic growth. The study contributes to the understanding of Islamic banking intermediation functions and provides policy recommendations for strengthening MSME financing in Indonesia.

Keywords *: Islamic Banking, MSME Financing, Macroeconomic Indicators, Poverty, Unemployment, BI7DRR*

INTRODUCTION

National economic development is a multidimensional endeavor that focuses not only on accelerating economic growth but also on reducing inequality and eradicating poverty. As emphasized by Todaro and Smith (2020), development is a process of expanding human freedom and improving the quality of life in an inclusive manner. In the Indonesian context, this development direction is realized through strengthening Micro, Small, and Medium Enterprises (MSMEs), which have proven to be a key pillar of the economy during crises. This strategic role of MSMEs drives the need for sustainable financing support, one of which is through Islamic banking. The graph of Islamic Bank MSME financing for the 2015-2024 period (Figure 1) shows a continuous increase in nominal value growth, reaching a peak of 103,927 billion in 2024. Although the financing volume continues to increase, the growth percentage (dotted line) fluctuates, where it shot up to a high of 14.64% in 2022 before finally declining to 8.93% in 2024. This indicates that Islamic Banks continue to expand their support for the MSME sector, although the annual expansion rate has begun to stabilize after passing through an aggressive post-pandemic growth phase.

Sharia financing offers high flexibility through various types of contracts tailored to transaction characteristics, such as murabahah for sales and purchase financing, mudharabah and musyarakah for profit sharing, and ijarah for leasing (Mariyanti et al., 2025). The success of Sharia financing is measured not only by the volume of disbursement but also by its quality and impact on economic development. Effective financing can increase real sector activity, encourage MSME growth, expand employment

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opportunities, and improve community welfare. Conversely, low-quality financing will increase the risk of non -*performing financing* (NPF) and disrupt the intermediation function of Sharia banks. The correlation between Sharia financing and national economic growth (GDP) has been empirically proven by Sudarsono et al. (2021), who confirmed that Sharia MSME financing significantly boosts real sector stability and increases aggregate national output. This aligns with Mankiw's (2024) economic growth theory, which states that investment is a key component in driving national productivity by increasing the stock of physical capital.

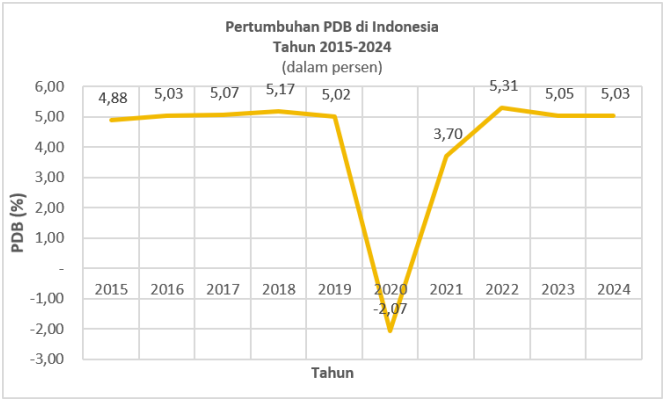


Figure 1. Financing of Islamic Bank MSMEs (Source: OJK)

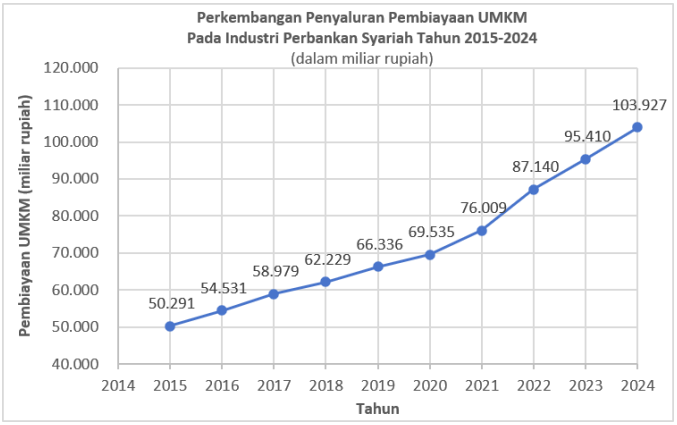


Figure 2. GDP growth (Source: BPS)

The distribution of MSME financing is inseparable from the dynamics of macroeconomic conditions. Economic growth reflected in GDP (Figure 2) indicates national production capacity, which in the 2015-2024 period experienced a V-shaped recovery pattern *after* the contraction caused by the pandemic in 2020. Meanwhile, unemployment and poverty rates reflect the socioeconomic conditions of the community that influence the demand for financing. The Open Unemployment Rate graph (Figure 3) shows a consistent downward trend from 7.07% in 2020 to 4.91% in 2024, indicating effective economic recovery and improved labor absorption. Research by Fasa et al. (2020) highlights a strong causal relationship between the growth of Islamic banks and economic growth, where increased working capital through Islamic financing drives MSME expansion and creates new labor demand.

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Figure 3. Open Unemployment Rate (Source: BPS)

Furthermore, inflation and the BI7DRR are indicators of monetary stability that influence the cost of funds and banking intermediation behavior. Inflation (Figure 4) exhibits dynamic fluctuations, from a low level below 2% in the 2020-2021 period, soaring to a peak of 5.51% in 2022, and finally being suppressed to a low of 1.57% in 2024. Research by Aswar (2020) concludes that inflation has a significant correlation in shaping the dynamics of macroeconomic indicators, where price stability is a prerequisite for sustainable economic growth. Theoretically, in a stable economic growth, demand for productive financing tends to increase. However, the characteristics of Sharia financing, which is based on profit-sharing and buying and selling, provide a unique dimension in responding to macroeconomic dynamics, as the profit-sharing mechanism allows for more flexible adjustments to the real conditions of the business sector (Ponziani & Mariyanti, 2020).

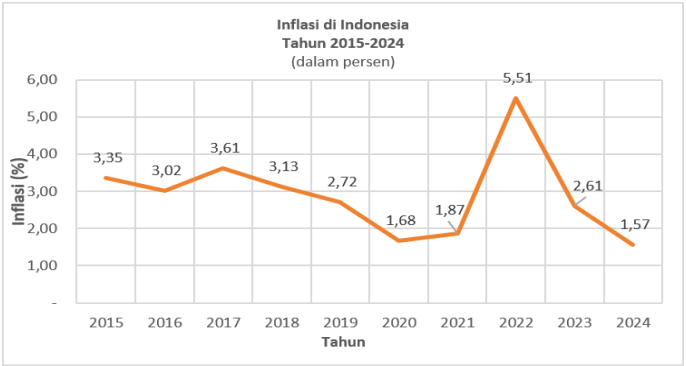


Figure 4. Inflation (Source: Bank Indonesia)

The most crucial indicator of economic success is a systemic reduction in poverty. Sharia financing has *a rahmatan lil alamin dimension* , where equitable financial access is expected to break the chain of structural poverty. Widiastuti et al. (2022) provide strong evidence that productive financing from Islamic banks is more effective in alleviating poverty because the profit-sharing scheme does not burden borrowers during difficult times. The poverty percentage graph (Figure 5) shows social dynamics that worsened at the beginning of the period, reaching 10.14% in 2021 due to the pandemic. However, it has shown a consistent downward trend, reaching its lowest level of 9.03% in 2024.

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Ponziani and Mariyanti (2020) also found a long-term equilibrium relationship (*cointegration*) between third-party funds, Islamic bank financing, output, and inflation, indicating a close link between Islamic banking intermediation activities and real sector stability and macroeconomic conditions.



Figure 5. Poverty Percentage (Source: BPS)



Figure 6. BI 7-Day Reverse Repo Rate (Source: Bank Indonesia)

Changes in the BI 7-Day Reverse Repo Rate (BI7DRR) during the 2015-2024 period (Figure 6) demonstrate that monetary policy instruments play a strategic role in influencing national economic conditions, including the Islamic banking sector. Although Islamic banking does not implement an interest system, changes in the BI7DRR can still influence bank intermediation behavior through changes in the cost of funds, yield rates, and public preferences (Bank Indonesia, 2024). The increase in the BI7DRR during the 2022-2024 period reflects Bank Indonesia's efforts to maintain inflation and exchange rate stability. In addition to being influenced by macroeconomic indicators, the distribution of MSME financing through Islamic banking also faces challenges, such as the implementation of prudential banking principles , which makes the distribution process more selective, and limitations on MSME actors in terms of legality and managerial capacity. This means that increases in national economic capacity are not always followed by a proportional increase in MSME financing distribution.

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Although various previous studies have examined the relationship between Islamic bank financing and macroeconomic indicators, most have focused on the influence of one or two variables separately and used relatively short observation periods. Consequently, few studies have been able to provide a comprehensive picture of how the dynamics of various macroeconomic indicators simultaneously influence the distribution of MSME financing to Islamic banks in Indonesia. The novelty *of* this study lies in the use of five macroeconomic indicators (GDP, TPT, Poverty, Inflation, and BI7DRR) analyzed simultaneously over an observation period of 2015-2024, covering the pre-pandemic phase, the pandemic period, and the economic recovery period. This approach provides a more comprehensive perspective on how national economic conditions influence the intermediation function of Islamic banks.

Based on empirical phenomena, inconsistencies in previous research results, and the importance of MSME financing in supporting national economic growth, this research is important to conduct. Therefore, the research questions asked are: (1) Does GDP affect the distribution of MSME financing to Islamic Banks in Indonesia? (2) Does the Open Unemployment Rate (TPT) affect the distribution of MSME financing to Islamic Banks in Indonesia? (3) Does the percentage of poverty affect the distribution of MSME financing to Islamic Banks in Indonesia? (4) Does inflation affect the distribution of MSME financing to Islamic Banks in Indonesia? (5) Does BI7DRR affect the distribution of MSME financing to Islamic Banks in Indonesia?

METHODS

This study uses a quantitative approach with multiple linear regression analysis method to examine the effect of five independent variables, namely Gross Domestic Product (GDP), Open Unemployment Rate (TPT), poverty percentage, inflation, and BI 7-Day Reverse Repo Rate (BI7DRR), on the dependent variable in the form of MSME financing distribution at Islamic Banks in Indonesia (OS_PUMKM). The data used are secondary quarterly *time series data* from 2015 to 2024 (40 observations) obtained from official publications of the Central Statistics Agency (BPS), the Financial Services Authority (OJK), and Bank Indonesia (BI). The research period was chosen because it covers various important phases in the Indonesian economy, namely the normal growth phase (2015–2019), the COVID-19 pandemic crisis (2020–2021), economic recovery (2022–2023), and stabilization (2024), thus allowing a more comprehensive analysis of the relationship between variables in various economic conditions. This approach aligns with research by Hakim and Nazarudin (2020) and Latifa (2020), which also used *time series data* from official sources to analyze the factors influencing Islamic banking financing. The operationalization of all research variables is summarized in Table 1 below.

Table 1. Operational Research Variables

Variables	Definition	Indicator	Unit
MSME Financing (Y)	Distribution of Islamic bank funds to the MSME sector	Total financing for MSMEs	Billion Rupiah

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Variables	Definition	Indicator	Unit
GDP (X1)	The total value of production of goods and services in the economy	GDP growth	Percentage (%)
Unemployment (X2)	Percentage of unemployment to total workforce	Open Unemployment Rate (TPT)	Percentage (%)
Poverty (X3)	Percentage of population below the poverty line	Poverty percentage	Percentage (%)
Inflation (X4)	The general increase in prices of goods and services over a certain period	Consumer Price Index (CPI) / Inflation rate	Percentage (%)
BI7DRR (X5)	The policy reference rate set by Bank Indonesia	BI 7-Day Reverse Repo Rate (BI7DRR)	Percentage (%)

Source: Processed by the author (2026)

Before hypothesis testing, the data were first tested for stationarity using *the Augmented Dickey-Fuller* (ADF) test, the Johansen cointegration test to detect long-term equilibrium relationships, and *the Error Correction Model* (ECM) test to analyze short-term dynamics and adjustment mechanisms towards long-term equilibrium. The use of this ECM model refers to the research of Hakim and Nazarudin (2020) and Ria and Manzilati (2023) who analyzed the influence of macroeconomic and internal variables on Islamic bank financing. The regression model was estimated with the equation $Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \varepsilon$, and its feasibility was tested through classical assumption tests including normality tests (Jarque-Bera), multicollinearity (VIF), heteroscedasticity (White Test), and autocorrelation (Breusch-Godfrey LM Test). Hypothesis testing was conducted partially (t-test) and simultaneously (F-test) at a 5% significance level, with the entire data processing process using EViews software. This approach aligns with research by Yanti (2021) and Maharani, Natazza, and Ardana (2025), which used similar methods to examine the influence of macroeconomic variables on Islamic bank financing in Indonesia.

RESULTS AND DISCUSSION

First, the research results contain the objective conditions of the research. This section contains research data that can be presented in several forms, for example: tables or graphs. Tables or graphs are only related to the research results. The caption of the table or graph is written above it, with Cambria typeface, font size 11, spacing 1.15 with the provisions of line spacing after and before 0. If there are subheadings in the results or in other sections, write the first, second and so on letters in bold. No other numbers, letters, or bullets are given. This section is written in Cambria type, font size 11, spacing 1.15 with line spacing after and before 0. Foreign languages, regional languages, and

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nonstandard terms are printed in italics, except for proper names.

Research Data Description

This study uses a quantitative approach with quarterly *time series secondary data* from 2015 to 2024 (40 observations) obtained from the Financial Services Authority (OJK), Bank Indonesia (BI), and the Central Statistics Agency (BPS). *Outstanding* MSME Financing Data (OS_PUMKM) is used as the dependent variable, while independent variables include poverty rate, inflation, Gross Domestic Product (GDP), Open Unemployment Rate (TPT), and the BI 7-Day Reverse Repo Rate (BI7DRR). The research period was chosen because it covers various important phases of the Indonesian economy, namely stable growth (2015–2019), the COVID-19 pandemic crisis (2020–2021), economic recovery (2022–2023), and stabilization (2024), thus allowing a comprehensive analysis of the relationship between variables in various economic conditions.

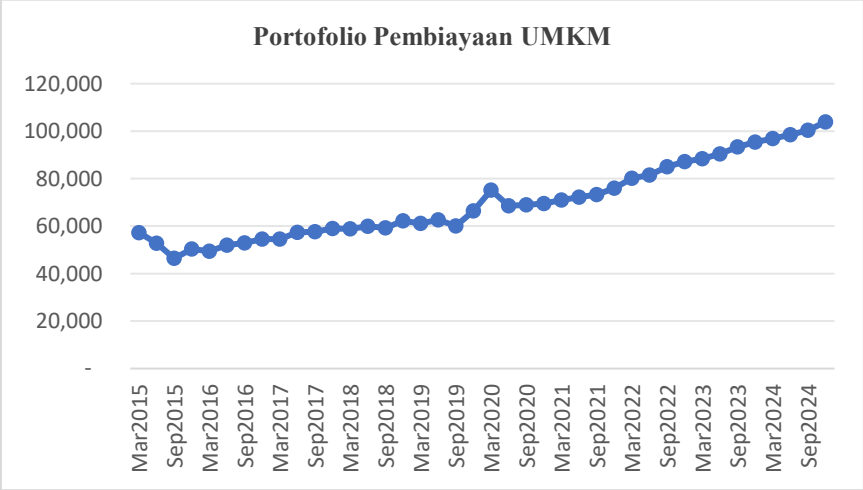


Figure 7. MSME Financing Portfolio (Source: OJK, processed 2026)

The MSME financing portfolio from March 2015 to December 2024 showed a positive growth trend, increasing from IDR 57,203 billion to IDR 103,927 billion, an increase of 81.68%. Despite a correction due to the pandemic in mid-2020, the portfolio has consistently grown since 2021 and peaked at the end of 2024, indicating the growing role of Islamic banking in supporting the MSME sector.

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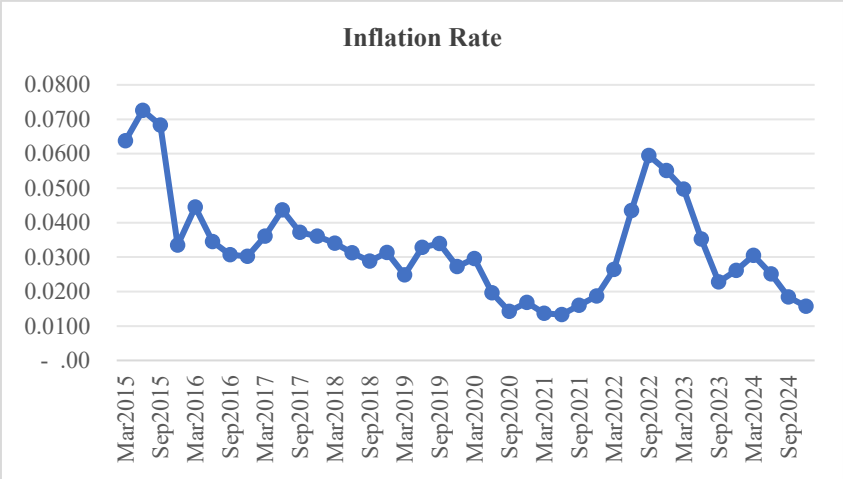


Figure 8. Inflation Rate (Source: BI, processed 2026)

The inflation rate exhibits a fluctuating pattern with a long-term downward trend. Inflation peaked at 7.26% in June 2015 and reached 5.95% in September 2022 due to pressures on global energy and food prices, before declining to a low of 1.57% in December 2024, reflecting the effectiveness of the government's and Bank Indonesia's stabilization policies.

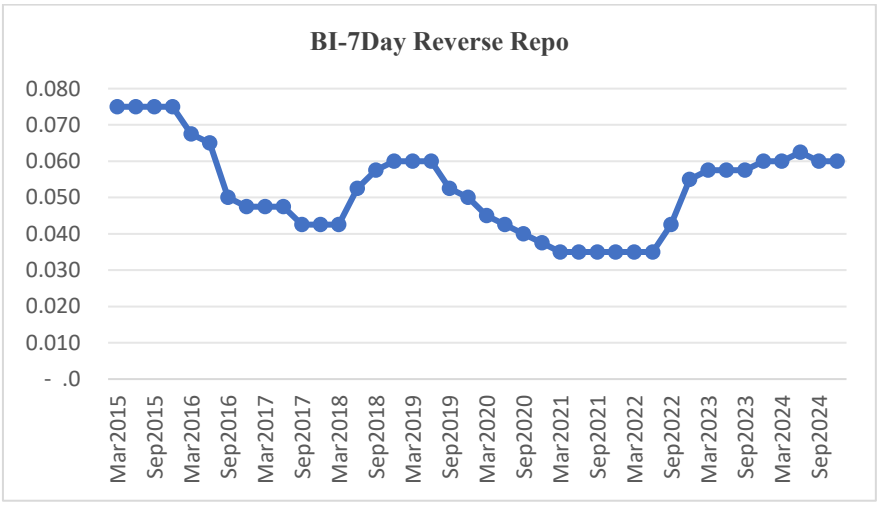


Figure 9 . BI 7-Day Reverse Repo Rate (Source: BI, processed 2026)

The BI7DRR moved from 7.50% in 2015 to 3.50% during the pandemic as an expansionary policy, then rose again to 6.00% in 2023-2024 in response to inflationary pressures and global economic uncertainty. This change reflects the dynamics of monetary policy that affect bank liquidity and funding costs, including in the distribution of MSME financing.

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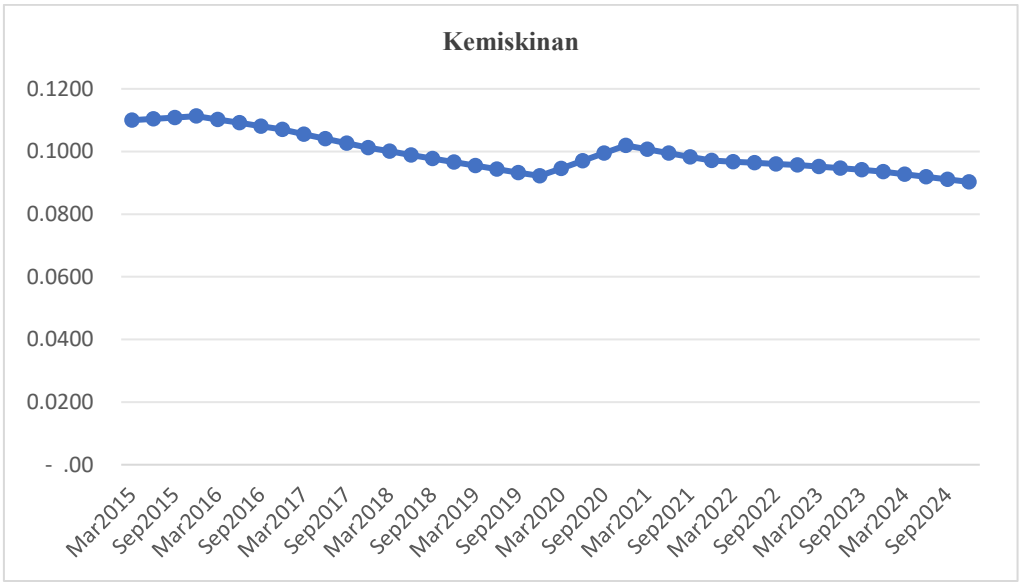


Figure 10. Poverty Rate (Source: BPS, processed 2026)

The poverty rate decreased from 11.00% in March 2015 to 9.03% in December 2024. The decline continued until 2019, but rose to 10.19% at the end of 2020 due to the pandemic, before declining again as the economy recovered.

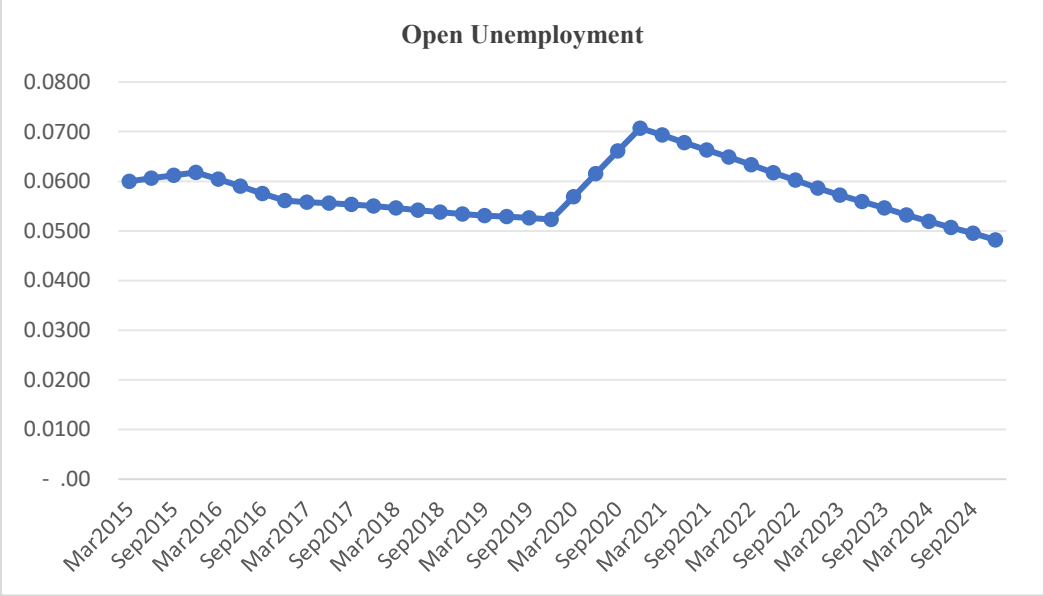


Figure 11. Open Unemployment Rate (Source: BPS, processed 2026)

The Open Unemployment Rate (TPT) fell from 6.00% in March 2015 to 4.82% in December 2024. A spike to 7.07% occurred at the end of 2020 due to the pandemic, but then declined consistently along with economic recovery and increased employment in the MSME sector.

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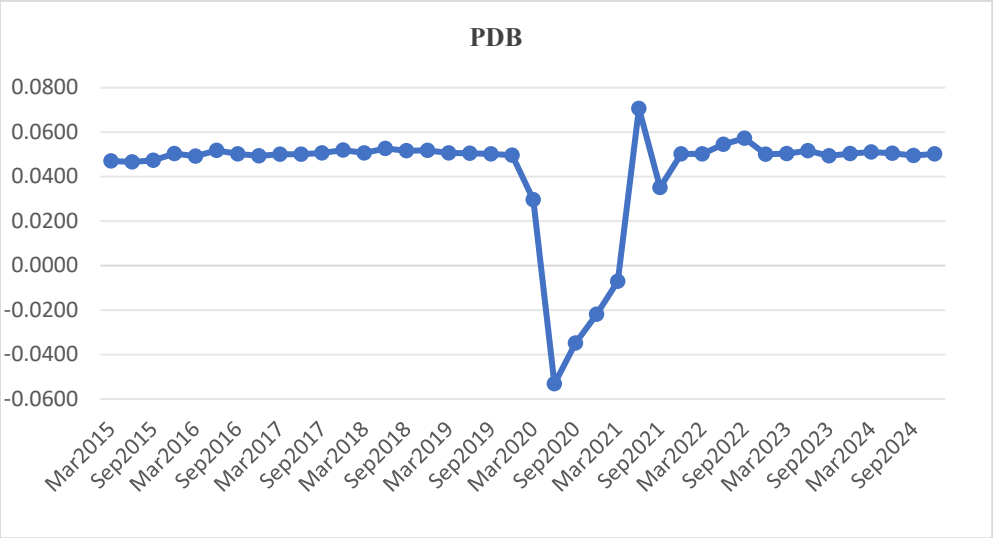


Figure 6. Gross Domestic Product Rate (Source: BPS, processed 2026)

GDP growth was relatively stable at around 5% in 2015-2019, then experienced a sharp contraction to -5.32% in June 2020 due to the pandemic, before recovering and reaching 7.07% in June 2021 (driven by *the base effect*), and returning to stabilize at around 5% in 2022-2024, indicating strong economic fundamentals and successful recovery from the crisis.

Overall, the descriptive analysis shows that outstanding MSME financing has experienced a consistent upward trend, while macroeconomic and socioeconomic variables exhibit fluctuations reflecting the dynamics of the Indonesian economy during the crisis, recovery, and stabilization phases. The development of MSME financing appears to be in line with improving economic growth, declining poverty and unemployment, and stable inflation. However, the descriptive analysis cannot yet explain the causal relationship or the magnitude of the influence between variables, requiring further inferential testing using multiple linear regression.

Descriptive Analysis

Table 2. Test Description

	OS_PUMKM	KEMISKINAN	INFLASI	PDB	TPT	BI7DRR
Mean	70.25823	994.2750	331.2750	421.7000	578.4250	0.052525
Median	67.44600	974.5000	309.5000	502.0000	565.0000	0.053000
Maximum	103.9270	1113.000	726.0000	707.0000	707.0000	0.075000
Minimum	46.42500	903.0000	133.0000	-532.0000	482.0000	0.035000
Std. Dev.	16.32515	62.12477	148.5830	253.2697	54.87603	0.012235
Skewness	0.539726	0.619799	0.971894	-2.658855	0.554951	0.190312
Kurtosis	2.078991	2.188885	3.508314	9.051405	2.618343	2.136592
Jarque-Bera	3.355788	3.657521	6.727830	108.1626	2.295908	1.483915
Probability	0.186767	0.160613	0.034600	0.000000	0.317285	0.476181
Sum	2810.329	39771.00	13251.00	16868.00	23137.00	2.101000
Sum Sq. Dev.	10393.91	150520.0	861000.0	2501676.	117443.8	0.005838
Observations	40	40	40	40	40	40

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The results of the descriptive statistical analysis in Table 1 show the characteristics of each variable during the observation period (2015–2024) with 40 observations. The *Outstanding* MSME Financing variable (OS_PUMKM) has an average of 70.258 (in billion Rupiah) with a standard deviation of 16.325, indicating quite large variations, as well as a distribution that is slightly skewed to the right (skewness 0.540) and tends to be flat (kurtosis 2.079). The poverty rate (in basis points) has an average of 994.275 with a relatively small standard deviation of 62.125, indicating stability during the study period, with a distribution close to normal (skewness 0.620; kurtosis 2.189). The inflation variable (in basis points) has an average of 331.275 with a standard deviation of 148.583 and a distribution that is skewed to the right (skewness 0.972) and more pointed (kurtosis 3.508), reflecting a period of quite extreme high inflation. Economic growth (GDP) has an average of 421.700 (4.22%) with a standard deviation of 253.270, showing the highest variation, with a distribution that is highly skewed to the left (skewness -2.659) and a very high peak (kurtosis 9.051), indicating a significant economic *shock* due to the COVID-19 pandemic in 2020. The Open Unemployment Rate (TPT) has an average of 578.425 (5.78%) with a standard deviation of 54.876 which is relatively stable and a distribution close to normal (skewness 0.555; kurtosis 2.618). Meanwhile, the BI7DRR had an average of 0.0525 (5.25%) with a standard deviation of 0.0122 and a relatively symmetrical distribution (skewness of 0.190) and flat (kurtosis of 2.137), reflecting moderate policy rate movements during the observation period. Overall, descriptive statistics show that all variables have varying distribution characteristics, with GDP exhibiting the highest volatility due to the impact of the pandemic, while socioeconomic variables such as poverty and unemployment remained relatively stable.

Stationary Test

Prior to model estimation, all variables were tested for stationarity using *the Augmented Dickey-Fuller* (ADF) test to ensure that the data did not contain a unit root , which can cause spurious regression . Testing was performed at the level , first *difference* , and *second difference* until the data were declared stationary. The ADF test results for each variable are presented in Tables 1 to 6 below.

Table 3. ADF Test Results for Inflation Variable

INFLASI

Null Hypothesis: INFLASI has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.384802	0.0178
Test critical values:	1% level	-3.615588	
	5% level	-2.941145	
	10% level	-2.609066	

*MacKinnon (1996) one-sided p-values.

Source: Eviews Output 14 (2026)

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Based on Table 1, the INFLATION variable has a t-statistic value of -3.384802 with a probability of 0.0178. This probability value is smaller than the 5% significance level (0.05), so H0 (there is a unit root) is rejected. Thus, it can be concluded that the INFLATION variable is stationary at the level , or integrated at the zero order I(0).

Table 4. ADF Test Results for GDP Variable

PDB

Null Hypothesis: D(PDB) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.644694	0.0000
Test critical values:	1% level	-3.615588	
	5% level	-2.941145	
	10% level	-2.609066	

*MacKinnon (1996) one-sided p-values.

Source: Eviews Output 14 (2026)

The results of the ADF test on the GDP variable (Table 2) show that at the data level *it* is not stationary, but after first-level differentiation (*first difference*), a t-statistic value of -6.644694 with a probability of 0.0000 is obtained. This value is much smaller than the 1% significance level, so H0 is rejected. Thus, the GDP variable is declared stationary at first-level differentiation or integrated at order one I(1).

Table 5. ADF Test Results for BI7DRR Variable

BI7DRR

Null Hypothesis: D(BI7DRR) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.785986	0.0064
Test critical values:	1% level	-3.615588	
	5% level	-2.941145	
	10% level	-2.609066	

*MacKinnon (1996) one-sided p-values.

Source: Eviews Output 14 (2026)

The BI7DRR variable at the *level* is not yet stationary, but after first-level differentiation, a t-statistic value of -3.785986 with a probability of 0.0064 was obtained (Table 3). This probability value is smaller than the 1% significance level, so H0 is rejected. Therefore, it can be concluded that the BI7DRR variable is stationary at first-level differentiation or integrated at order one I(1).

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Table 6. ADF Test Results for TPT Variables

TPT TINGKAT PENGANGGURAN TERBUKA

Null Hypothesis: D(TPT,2) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.855076	0.0000
Test critical values:	1% level	-3.621023	
	5% level	-2.943427	
	10% level	-2.610263	

*MacKinnon (1996) one-sided p-values.

Source: Eviews Output 14 (2026)

The test results in Table 4 show that the TPT variable is not stationary either at the level *or* at the first level of differentiation, and is only stationary after the second level of differentiation (*second difference*), with a t-statistic value of -5.855076 and a probability of 0.0000. This probability value is smaller than the 1% level of significance, so H0 is rejected. Thus, the TPT variable is declared stationary at the second level of differentiation or integrated at the second order I(2).

Table 7. ADF Test Results for Poverty Variables

KEMISKINAN

Null Hypothesis: D(KEMISKINAN,2) has a unit root
Exogenous: Constant
Lag Length: 3 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.098578	0.0002
Test critical values:	1% level	-3.639407	
	5% level	-2.951125	
	10% level	-2.614300	

*MacKinnon (1996) one-sided p-values.

Source: Eviews Output 14 (2026)

The POVERTY variable (Table 5) is not stationary at the first *level* or differentiation level, and only shows stationarity after the second level differentiation, with a t-statistic value of -5.098578 and a probability of 0.0002. This value is smaller than the 1% significance level, so H0 is rejected. Therefore, the POVERTY variable is stated to be stationary at the second level differentiation level or integrated at the second order I(2).

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Table 8. ADF Test Results for MSME Financing Variables

PEMBIAYAAN UMKM

Null Hypothesis: D(OS_PUMKM) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.694133	0.0000
Test critical values:	1% level	-3.615588	
	5% level	-2.941145	
	10% level	-2.609066	

*MacKinnon (1996) one-sided p-values.

Source: Eviews Output 14 (2026)

The results of the ADF test on the OS_PUMKM variable (Table 6) show that the data is not stationary at the level , but after the first level differentiation, a t-statistic value of -6.694133 with a probability of 0.0000 is obtained. This probability value is smaller than the 1% real level, so H0 is rejected. Thus, the OS_PUMKM variable is declared stationary at the first level differentiation or integrated at the first order I(1).

Cointegration Test

To determine whether there is a long-term equilibrium relationship between the variables studied, this study conducted the Johansen cointegration test using two approaches: *the Trace Statistic* and *the Max-Eigenvalue Statistic* . These two approaches were used simultaneously to complement each other and provide more convincing conclusions. The results of the cointegration test are presented in Tables 7 and 8 below.

Table 9. Results of the Cointegration Test Using the Trace Statistic Approach

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.** Critical Value
None *	0.907660	165.1721	95.75366	0.0000
At most 1 *	0.563454	74.64550	69.81889	0.0195
At most 2	0.400361	43.14878	47.85613	0.1290
At most 3	0.340686	23.71456	29.79707	0.2128
At most 4	0.174109	7.885455	15.49471	0.4777
At most 5	0.016088	0.616320	3.841465	0.4324

Trace test indicates 2 cointegrating equation(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Source: Eviews Output 14

The Trace Statistic test in Table 7, it can be seen that in the "None" hypothesis, the Trace Statistic value obtained is 165.1721, far exceeding the critical value at the 5% significance level of 95.75366, with a probability of 0.0000. Likewise, in the "At most 1" hypothesis, the Trace Statistic value of 74.64550 is still above the critical value of 69.81889 with a probability of 0.0195. These two findings provide sufficient evidence to

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reject the null hypothesis, which means that a cointegration relationship is indeed detected at both stages of the test. However, once entering the "At most 2" hypothesis and beyond, the Trace Statistic value begins to fall below its critical value, so there is no sufficient reason to reject the null hypothesis at these stages. In other words, the Trace test leads to the conclusion that there are two significant cointegration equations at the 5% significance level.

Table 10. Results of the Max-Eigenvalue Cointegration Test

Unrestricted Cointegration Rank Test (Max-eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.** Critical Value
None *	0.907660	90.52665	40.07757	0.0000
At most 1	0.563454	31.49671	33.87687	0.0937
At most 2	0.400361	19.43423	27.58434	0.3816
At most 3	0.340686	15.82910	21.13162	0.2350
At most 4	0.174109	7.269135	14.26460	0.4578
At most 5	0.016088	0.616320	3.841465	0.4324

Max-eigenvalue test indicates 1 cointegrating equation(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Source: Eviews Output 14

Meanwhile, *the Max-Eigenvalue test results* in Table 8 show a slightly different picture. In the "None" hypothesis, the Max-Eigenstatistic value of 90.52665 still far exceeds its critical value (40.07757) with a probability of 0.0000, so the null hypothesis can again be confidently rejected. However, when moving to the "At most 1" hypothesis, the Max-Eigenstatistic value of 31.49671 is actually slightly below the critical value of 33.87687, with a probability of 0.0937, which exceeds the 0.05 threshold. This means that at this stage the null hypothesis cannot be rejected, so the Max-Eigenvalue test only confirms the existence of one cointegration equation.

The difference in the number of detected cointegration equations between these two tests (two by Trace, one by Max-Eigenvalue) is not surprising in econometric practice, given that the two tests have different sensitivity and statistical power in detecting the number of cointegrating vectors. More importantly, both tests consistently agree in rejecting the "None" hypothesis with a probability of 0.0000—a finding that confirms the existence of at least one strong and undeniable long-run equilibrium relationship among the variables in this model.

Thus, it can be concluded that the variables INFLATION, GDP, TPT, POVERTY, BI7DRR, and OS_PUMKM are indeed interconnected in a cointegration relationship. In other words, although each variable may move differently in the short term, together they tend to move towards a single equilibrium point in the long term. This finding provides a solid foundation for continuing the analysis using the ECM (*Error Correction Model*), which allows researchers to capture the dynamics of short-term adjustments as well as the error correction mechanisms that bring the system back to its long-term equilibrium.

Error Correction Term (ECT) Test

Before estimating the ECM model, it is necessary to conduct a stationarity test on

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the ECT (*Error Correction Term*) residuals obtained from the long-run cointegration equation. This test aims to ensure that the ECT residuals are stationary, which is an important requirement for proving a valid cointegration relationship between variables. The results of the ADF test on the ECT variable are presented in Table 9 below.

Table 11. Error Correction Term (ECT) Test Results

Null Hypothesis: D(ECT) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.227465	0.0020
Test critical values:	1% level	-3.615588	
	5% level	-2.941145	
	10% level	-2.609066	

*MacKinnon (1996) one-sided p-values.

Source: Eviews Output 14

The results of the ADF test on the ECT variable in Table 9 show that the t-statistic value is -4.227465 with a probability of 0.0020. This probability value is smaller than the 1% significance level (0.01), so H0 (there is a unit root) is rejected. Thus, it can be concluded that the ECT residual is stationary at the first level of differentiation or integrated at the first order I(1). The stationarity of ECT is an important requirement to prove that there is a valid cointegration relationship (long-term equilibrium) between variables in the model, so that the ECM approach is suitable for use in observing short-term dynamics and the adjustment process towards long-term equilibrium. These results indicate that any short-term deviations from the long-term equilibrium are temporary and have an adjustment mechanism to return to equilibrium. Thus, the ECM model is not only able to explain the short-term effects of independent variables on MSME Financing Outstanding but also shows the speed *of adjustment* from short-term imbalances to long-term equilibrium.

Error Correction Model (ECM) Test

Once all prerequisites are met, the next step is to estimate the ECM (*Error Correction Model*) model to analyze the dynamics of short-term relationships between variables and the adjustment mechanisms toward long-term equilibrium. The results of the ECM model estimation are presented in Table 10 below.

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Table 1 2. Error Correction Model (ECM) Test Results

Dependent Variable: OS_PUMKM
Method: Least Squares
Date: 07/23/26 Time: 15:46
Sample: 2015Q1 2024Q4
Included observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	251.7546	1.13E-12	2.22E+14	0.0000
INFLASI	-0.673623	5.23E-12	-1.29E+11	0.0000
PDB	66.32349	2.86E-12	2.32E+13	0.0000
TPT	1082.901	1.70E-11	6.39E+13	0.0000
KEMISKINAN	-2686.262	1.35E-11	-1.99E+14	0.0000
BI7DRR	384.1909	6.97E-12	5.52E+13	0.0000
ECT	1.000000	6.44E-15	1.55E+14	0.0000

R-squared	1.000000	Mean dependent var	70.25823
Adjusted R-squared	1.000000	S.D. dependent var	16.32515
S.E. of regression	3.67E-13	Sum squared resid	4.45E-24
F-statistic	1.29E+28	Durbin-Watson stat	0.507861
Prob(F-statistic)	0.000000		

R-squared = 1.000000, Adjusted R-squared = 1.000000, F-statistic = 1.29E+28, Prob(F-statistic) = 0.000000
Source: Eviews Output 14

The ECM model estimation results in Table 10 show that all independent variables (INFLATION, GDP, TPT, POVERTY, BI7DRR) and ECT statistically significantly affect OS_PUMKM in the short term, with all probability values of 0.0000 (significant at the 1% level of significance). The ECT coefficient is 1.000000 and is significant, which theoretically indicates a speed of adjustment *towards* long-term equilibrium of 100% in one period. The R-squared and Adjusted R-squared values of 1.000000 indicate that the model is able to explain all variations in OS_PUMKM perfectly (Hakim & Nazarudin, 2020; Ria & Manzilati, 2023).

Classical Assumption Test

Before regression results can be interpreted validly, the model must meet four classic assumptions: residual normality, multicollinearity, heteroscedasticity, and autocorrelation. The results of testing these four assumptions are presented in the following subsections.

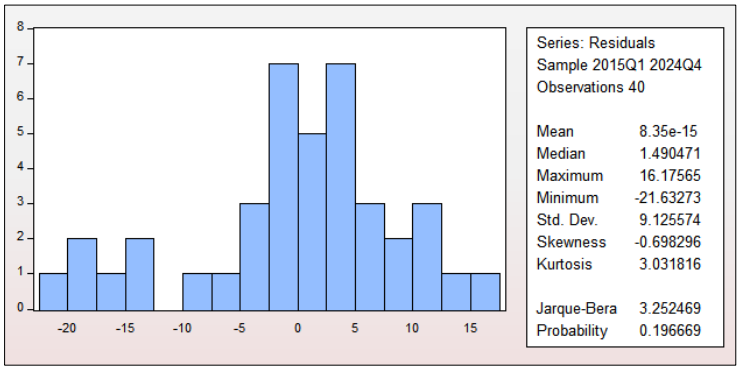
Normality Test

The Jarque-Bera test was used to determine whether the residuals of the regression model were normally distributed. The results of the normality test are presented in Table 11 below.

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Table 1 3 . Normality Test



Source: Eviews Output 14

Based on the results of the residual normality test using Jarque-Bera in Table 11, it can be concluded that the residuals of the regression model have met the assumption of normality. The Jarque-Bera value is 3.252469 with a probability (p-value) of 0.196669. Because the probability value is greater than the 5% significance level (0.196669 > 0.05), then H0 is accepted, which means the residuals of the model are normally distributed. Thus, the regression model used has met one of the classical assumptions, namely the assumption of residual normality (Gujarati & Porter, 2022). Furthermore, based on the histogram graph, the residual distribution appears to be spread around the mean value and forms a pattern that resembles a bell *-shaped curve* . The *skewness value* of -0.698296 indicates that the residual distribution is slightly skewed to the left, but still within acceptable limits. Meanwhile, the *kurtosis value* of 3.031816 is very close to the kurtosis value of a normal distribution, which is 3, further confirming that the model's residuals have a distribution close to normal.

Multicollinearity Test

Multicollinearity testing was conducted using *the Variance Inflation Factor* (VIF) method to detect high correlations between independent variables. The results of the multicollinearity test are presented in Table 12 below.

Table 1 4 . Multicollinearity Test

Variance Inflation Factors
Date: 07/02/26 Time: 10:44
Sample: 2015Q1 2024Q4
Included observations: 40

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	909.3447	380.7873	NA
KEMISKINAN	0.001286	534.3302	2.026193
INFLASI	0.000194	10.67083	1.749774
PDB	5.79E-05	5.823152	1.515109
TPT	0.002038	287.9694	2.505115
BI7DRR	34407.44	41.85296	2.102851

Source: Eviews Output 14

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Based on the results of the multicollinearity test in Table 12, it is known that all independent variables in the research model have *Centered VIF values* that are below the critical limit of 10. The poverty variable has a *Centered VIF value* of 2.026193, inflation of 1.749774, GDP of 1.515109, open unemployment rate (TPT) of 2.505115, and BI7DRR of 2.102851. These results indicate that there is no high correlation between the independent variables in the regression model used.

In multicollinearity testing, the basis for decision making refers to the *Centered VIF value* , because this value is able to describe the level of relationship between independent variables more accurately compared to the *Uncentered VIF value* . A regression model is said to be free from multicollinearity problems if the VIF value of each independent variable is below 10. In this study, all variables have relatively low *Centered VIF values* , even all of them are below 3, thus indicating that the relationship between independent variables is still at a tolerable level (Wooldridge, 2020).

Thus, it can be concluded that the regression model in this study does not experience multicollinearity issues. This indicates that each independent variable is able to explain the dependent variable without any interference from the strong linear relationship between the independent variables. Therefore, the regression model used meets the classical assumptions of multicollinearity and is suitable for further testing and further regression analysis.

Heteroscedasticity Test

The heteroscedasticity test was conducted using the *White Test method* to determine whether the residual variance is constant (homoscedasticity). The results of the heteroscedasticity test are presented in Table 13 below.

Table 1.5 . Heteroscedasticity Test (White Test)

Heteroskedasticity Test: White
Null hypothesis: Homoskedasticity

F-statistic	2.849515	Prob. F(20,19)	0.0132
Obs*R-squared	29.99872	Prob. Chi-Square(20)	0.0699
Scaled explained SS	22.01887	Prob. Chi-Square(20)	0.3395

Source: Eviews Output 14

Based on the results of the heteroscedasticity test using the *White Test method* in Table 13, the Prob. Obs*R-squared value was obtained at 0.0699, which is greater than the 5% significance level (0.05). In addition, the Prob. Scaled Explained SS value of 0.3395 also shows a figure greater than 0.05. Based on the decision-making criteria in *the White test* , these results indicate that the regression model does not experience heteroscedasticity problems, so the residual variance can be considered constant (homoscedasticity) (Baltagi, 2021).

Although the F-statistic Prob. value of 0.0132 indicates significance at the 5% level, the main decision in *the White test* focuses more on the Obs *R-squared value (LM Test). Therefore, with the Obs* R-squared probability value exceeding the specified significance level, the null hypothesis (H0) stating the absence of heteroscedasticity can be accepted. This result indicates that the regression model used has met one of the classical assumptions, namely the assumption of homoscedasticity.

Furthermore, the results of testing the independent variables, quadratic variables,

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and interaction variables indicate that all probability values for each variable are above 0.05. This indicates that no specific variables significantly affect the residual variance. Therefore, it can be concluded that the research model is free from heteroscedasticity and is suitable for use in regression analysis and subsequent hypothesis testing.

Autocorrelation Test

The autocorrelation test was conducted using *the Breusch-Godfrey Serial Correlation LM Test* to detect serial correlation between residuals. The results of the autocorrelation test are presented in Table 14 below.

Table 1.6 . Autocorrelation Test (Breusch-Godfrey LM Test)

Breusch-Godfrey Serial Correlation LM Test: Null hypothesis: No serial correlation at up to 2 lags			
F-statistic	0.193566	Prob. F(2,31)	0.8250
Obs*R-squared	0.481030	Prob. Chi-Square(2)	0.7862

Source: Eviews Output 14

Based on the results of *the Breusch-Godfrey Serial Correlation LM Test* in Table 14, the Prob. F-statistic value is 0.8250 and the Prob. Obs*R-squared value is 0.7862. This probability value is greater than the 5% significance level (0.05), so the null hypothesis (H_0) stating that there is no autocorrelation in the regression model is accepted (Enders, 2022). Thus, it can be concluded that the regression model used does not experience problems with autocorrelation or serial correlation between residuals.

The test results also show that the first lag residual variable (RESID(-1)) has a probability value of 0.9747, while the second lag residual (RESID(-2)) has a probability value of 0.5386. Both values are above the 5% significance level, indicating that the residuals in the previous period do not significantly affect the residuals in the current period. In addition, the *Durbin-Watson Statistic value* of 1.861786, which is close to 2, also strengthens the indication that the model is free from autocorrelation symptoms. Thus, it can be concluded that the model has met the assumption of being free from autocorrelation, so that the regression estimation results can be considered valid and reliable.

Hypothesis Testing

After all classical assumptions are met, the next step is to conduct hypothesis testing to determine the influence of each independent variable on the dependent variable, both partially and simultaneously.

t-test (Partial)

The t-test is used to test the effect of each independent variable individually on the dependent variable. The results of the t-test are presented in Table 15 below.

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Table 1 7 . t Test (Partial)

Dependent Variable: OS_PUMKM
Method: Least Squares
Date: 07/02/26 Time: 10:47
Sample: 2015Q1 2024Q4
Included observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	251.7546	30.15534	8.348591	0.0000
KEMISKINAN	-0.268626	0.035859	-7.491209	0.0000
INFLASI	-6.74E-05	0.013933	-0.004835	0.9962
PDB	0.006632	0.007606	0.871983	0.3893
TPT	0.108290	0.045139	2.399037	0.0221
BI7DRR	384.1909	185.4924	2.071195	0.0460

R-squared	0.687532	Mean dependent var	70.25823
Adjusted R-squared	0.641580	S.D. dependent var	16.32515
S.E. of regression	9.773566	Akaike info criterion	7.534721
Sum squared resid	3247.768	Schwarz criterion	7.788053
Log likelihood	-144.6944	Hannan-Quinn criter.	7.626318
F-statistic	14.96220	Durbin-Watson stat	0.158773
Prob(F-statistic)	0.000000		

Source: Eviews Output 14

Based on the partial test results (t-test) in Table 17 , the Poverty variable has a coefficient value of -2686.262, a t-statistic value of -7.491209, and a probability value (p-value) of 0.0000. This probability value is smaller than the 5% significance level (0.05), so H_0 is rejected and H_1 is accepted. Thus, the poverty variable has a significant effect on the distribution of MSME financing (OS_PUMKM). The negative regression coefficient indicates that every one unit increase in the poverty level will cause a decrease in the distribution of MSME financing by 2686.262 units, assuming other variables are held constant. These results indicate that increasing poverty levels tend to reduce the community's ability to access and utilize MSME financing. This finding is in line with research by Yusron, Supriyanto, and Tanjung (2023) and Widiastuti et al. (2022).

The inflation variable has a coefficient value of -0.673623, a t-statistic value of -0.004835, and a probability value of 0.9962. This probability value is greater than the 5% significance level (0.05), so H_0 is accepted and H_1 is rejected. Thus, the inflation variable does not have a significant effect on MSME financing distribution. Although the regression coefficient indicates a negative relationship, this effect is not statistically strong enough to explain changes in MSME financing distribution during the study period. This indicates that inflation fluctuations were not the main factor influencing MSME financing at Islamic banks during the observation period. This finding differs from the research by Maharani et al. (2025) and Annisa, Setyowati, and Ruhadi (2021), which is suspected to be caused by the characteristics of Islamic financing that is not fully influenced by inflation fluctuations.

The GDP variable has a coefficient value of 66.32349, a t-statistic value of 0.871983, and a probability value of 0.3893. This probability value is greater than the 5% significance level (0.05), so H_0 is accepted and H_1 is rejected. Thus, the GDP variable does not significantly influence the distribution of MSME financing. Although the regression coefficient shows a positive relationship, the increase in GDP was not significantly followed by an increase in the distribution of MSME financing during the study period. This condition indicates that macroeconomic growth reflected in GDP has not directly influenced the policy of distributing MSME financing. These results are in line with the research of Yusron, Supriyanto, and Tanjung (2023).

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The TPT variable has a coefficient value of 1082.901, a t-statistic value of 2.399037, and a probability value of 0.0221. This probability value is smaller than the 5% significance level (0.05), so H_0 is rejected and H_1 is accepted. Thus, the open unemployment rate variable has a significant effect on the distribution of MSME financing. A positive coefficient indicates that an increase in the open unemployment rate by one unit will increase the distribution of MSME financing by 1082.901 units, assuming other variables remain constant. This result can be interpreted as increasing unemployment encouraging people to shift to the independent business sector or MSMEs, thereby increasing the demand for financing. This finding is supported by Yusron, Supriyanto, and Tanjung (2023) and Nasution (2023).

The BI7DRR variable has a coefficient value of 384.1909, a t-statistic value of 2.071195, and a probability value of 0.0460. This probability value is smaller than the 5% significance level (0.05), so H_0 is rejected and H_1 is accepted. Thus, the BI7DRR variable has a significant effect on MSME financing disbursement. A positive regression coefficient indicates that every one-unit increase in BI7DRR will increase MSME financing disbursement by 384.1909 units, assuming other variables remain constant. This finding can be explained by the characteristics of the non-interest-based Islamic financing system and the possibility of business actors shifting from conventional to Islamic financing when interest rates increase (Muiz, 2023; Yusron, Supriyanto, & Tanjung, 2023).

Based on the overall partial test results (t-test), it can be concluded that of the five independent variables studied, there are three variables that have a significant effect on the distribution of MSME financing, namely Poverty, Open Unemployment Rate (TPT), and BI7DRR, because they have a probability value smaller than 0.05. Meanwhile, the variables Inflation and Gross Domestic Product (GDP) do not have a significant effect on the distribution of MSME financing because they have a probability value greater than 0.05. Thus, the research hypothesis related to the influence of Poverty, TPT, and BI7DRR is accepted, while the hypothesis related to Inflation and GDP is rejected.

These findings indicate that not all macroeconomic variables have the same influence on the distribution of outstanding MSME financing at Islamic banks. The significant variables of poverty, TPT, and BI7DRR indicate that socioeconomic conditions and monetary policy play a greater role in influencing MSME financing than inflation and economic growth.

F Test (Simultaneous)

The F test is used to test the effect of all independent variables simultaneously on the dependent variable. The results of the F test are presented in Table 16 below.

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Table 1 8 . F Test (Simultaneous)

Dependent Variable: OS_PUMKM
Method: Least Squares
Date: 07/02/26 Time: 10:47
Sample: 2015Q1 2024Q4
Included observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	251.7546	30.15534	8.348591	0.0000
KEMISKINAN	-0.268626	0.035859	-7.491209	0.0000
INFLASI	-6.74E-05	0.013933	-0.004835	0.9962
PDB	0.006632	0.007606	0.871983	0.3893
TPT	0.108290	0.045139	2.399037	0.0221
BI7DRR	384.1909	185.4924	2.071195	0.0460

R-squared	0.687532	Mean dependent var	70.25823
Adjusted R-squared	0.641580	S.D. dependent var	16.32515
S.E. of regression	9.773566	Akaike info criterion	7.534721
Sum squared resid	3247.768	Schwarz criterion	7.788053
Log likelihood	-144.6944	Hannan-Quinn criter.	7.626318
F-statistic	14.96220	Durbin-Watson stat	0.158773
Prob(F-statistic)	0.000000		

Source: Eviews Output 14

Based on the results of the simultaneous test (F test) in Table 16, the F-statistic value was 14.96220 with a Prob(F-statistic) value of 0.000000. This probability value is smaller than the 5% significance level (0.05), so H_0 is rejected and H_1 is accepted. Thus, it can be concluded that simultaneously the variables of Poverty, Inflation, Gross Domestic Product (GDP), Open Unemployment Rate (TPT), and BI7DRR have a significant effect on the distribution of MSME financing (Gujarati & Porter, 2022).

The F-test results indicate that all independent variables used in the model collectively explain the variation in the dependent variable, namely MSME financing distribution. In other words, the regression model successfully explains the relationship between the studied macroeconomic factors and MSME financing distribution. This also indicates that the research model is suitable for further analysis through partial testing (t-test). These results align with research by Lestari and Afandi (2024), which demonstrated that macroeconomic factors collectively influence MSME financing in Islamic banking in Indonesia.

Coefficient of Determination (R^2)

The coefficient of determination is used to measure the extent to which an independent variable explains variation in a dependent variable. The results of the determination test are presented in Table 17 below.

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Table 1 9 . Determination Test (R^2)

Dependent Variable: OS_PUMKM
Method: Least Squares
Date: 07/02/26 Time: 10:47
Sample: 2015Q1 2024Q4
Included observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	251.7546	30.15534	8.348591	0.0000
KEMISKINAN	-0.268626	0.035859	-7.491209	0.0000
INFLASI	-6.74E-05	0.013933	-0.004835	0.9962
PDB	0.006632	0.007606	0.871983	0.3893
TPT	0.108290	0.045139	2.399037	0.0221
BI7DRR	384.1909	185.4924	2.071195	0.0460

R-squared	0.687532	Mean dependent var	70.25823
Adjusted R-squared	0.641580	S.D. dependent var	16.32515
S.E. of regression	9.773566	Akaike info criterion	7.534721
Sum squared resid	3247.768	Schwarz criterion	7.788053
Log likelihood	-144.6944	Hannan-Quinn criter.	7.626318
F-statistic	14.96220	Durbin-Watson stat	0.158773
Prob(F-statistic)	0.000000		

Source: Eviews Output 14

Based on the regression estimation results in Table 17, the coefficient of determination (*R-squared*) was obtained at 0.687532 or 68.75%. This indicates that the independent variables consisting of Poverty, Inflation, Gross Domestic Product (GDP), Open Unemployment Rate (TPT), and BI7DRR were able to jointly explain variations in changes in the dependent variable, namely the distribution of MSME financing (OS_PUMKM) by 68.75%. Meanwhile, the remaining 31.25% was explained by other factors outside the research model that were not included in this study (Wooldridge, 2020).

In addition, the *Adjusted R-squared value was obtained* at 0.641580 or 64.16%. The Adjusted R-squared value is used to measure the model's ability by considering the number of independent variables used in the study. Thus, after adjusting for the number of independent variables, the research model was still able to explain variations in MSME financing distribution by 64.16%, while the remaining 35.84% was influenced by other variables outside the model, such as other macroeconomic conditions, government policies, banking conditions, and other external factors.

Based on the coefficient of determination, it can be concluded that the regression model used has sufficient explanatory power in explaining variations in MSME financing distribution. This indicates that the variables of Poverty, Inflation, GDP, TPT, and BI7DRR have a significant contribution in explaining changes in MSME financing distribution during the study period, so that the model can be categorized as a model that is suitable for use in the analysis and testing of research hypotheses.

Discussion of Research Results

Based on the results of multiple linear regression analysis that has been conducted on the influence of Poverty, Inflation, Gross Domestic Product (GDP), Open Unemployment Rate (TPT), and BI7DRR on the distribution of MSME financing (OS_PUMKM) in the research period of 2015Q1–2024Q4, several important findings were obtained. The

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results of the classical assumption test indicate that the regression model has met the feasibility criteria after model adjustments were made. The heteroscedasticity test using the *White Test method* showed no symptoms of heteroscedasticity, while the autocorrelation test which initially indicated the presence of autocorrelation was successfully resolved so that the model meets the autocorrelation-free assumption.

The Impact of Poverty on the Distribution of MSME Financing

The partial test results indicate that the poverty variable has a negative and significant effect on the distribution of MSME financing to Islamic banks. This is indicated by a probability value of 0.0000, which is smaller than the 0.05 significance level, and a t-statistic value of -7.491209. The negative regression coefficient of -2686.262 indicates that increasing poverty levels will reduce the distribution of MSME financing. These findings indicate that poverty is a significant factor influencing the community's ability to access formal financing sources, including financing disbursed by Islamic banks.

Theoretically, high poverty rates reflect low economic capacity, both in terms of income, productive assets, and the ability to meet financing requirements. Communities in low economic conditions tend to have limitations in developing viable businesses and obtaining financing from financial institutions. Furthermore, high poverty rates also increase financing risks, making financial institutions more selective in channeling funds to the MSME sector. The results of this study align with economic development theory, which states that poverty can hinder access to productive resources, including financial access.

The results of this study are supported by research by Yusron, Supriyanto, and Tanjung (2023), which explains that external economic factors are a driving factor in determining the development of MSME financing at Islamic Commercial Banks. This study shows that improving economic conditions will increase the ability of MSMEs to access financing, while worsening economic conditions will increase financing risks, making banks more selective in channeling funds to the MSME sector. These findings align with the results of this study, which found that poverty levels have a negative and significant impact on MSME financing distribution. This indicates that the higher the poverty level, the lower the community's ability to meet financing requirements or develop businesses eligible for financing from Islamic Banks.

From an intermediation perspective, this study demonstrates that Islamic banks are capable of fulfilling their role as institutions that connect those with excess funds with businesses in need of financing, particularly during times of labor market pressure. The increasing need for business capital due to the growing number of people becoming entrepreneurs presents an opportunity for Islamic banks to expand their distribution of productive financing. Therefore, Islamic banks' intermediation strategy needs to be directed at strengthening MSME financing while still adhering to the principles of prudence and financing quality to support sustainable economic growth.

The Impact of Inflation on the Distribution of MSME Financing

Based on the test results, the inflation variable does not significantly influence the distribution of MSME financing. This is indicated by a probability value of 0.9962, which is greater than the 0.05 significance level, with a t-statistic value of -0.004835. Although the

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regression coefficient is negative at -0.673623, this effect is statistically insignificant, so changes in inflation cannot explain changes in MSME financing distribution during the study period.

These findings indicate that price fluctuations in the economy do not directly impact the financing policies disbursed by Islamic banks for MSMEs. One explanation for this is the nature of Islamic financing, which utilizes profit-sharing principles, sale and purchase, and other Islamic contracts, making it less affected by changes in inflation rates than conventional financial systems. Furthermore, MSMEs generally require working capital to maintain business operations despite changes in inflation rates. The relatively stable need for working capital means that financing demand remains relatively unchanged when inflation rises or falls. Therefore, inflation was not a dominant factor determining the amount of MSME financing disbursed by Islamic banks during the observation period.

The results of this study indicate that inflation does not significantly influence the distribution of MSME financing. This finding differs from the research of Annisa, Setyowati, and Ruhadi (2021), which found that inflation significantly influences MSME financing at Bank Syariah Indonesia. According to them, changes in the inflation rate affect operational costs and economic conditions, which can influence financing distribution policies. The difference in these research results is likely due to differences in observation periods, data characteristics, and macroeconomic conditions. During this research period, inflation was relatively controlled and therefore not a major factor in the decisions of Islamic banks to distribute financing to the MSME sector. Thus, financing distribution is more influenced by other factors than changes in the inflation rate.

The Influence of Gross Domestic Product (GDP) on the Distribution of MSME Financing

The results of the study indicate that Gross Domestic Product (GDP) does not significantly influence MSME financing distribution. This is indicated by a probability value of 0.3893, which is greater than the 0.05 significance level, with a t-statistic of 0.871983. Although the regression coefficient is positive at 66.32349, this effect is not statistically significant.

Theoretically, an increase in GDP reflects improved economic growth and should boost business activity and demand for financing. However, this study shows that increased national economic output has not directly driven an increase in MSME financing disbursed by Islamic banks. This may occur because economic growth, as reflected in GDP, is not always distributed evenly across all economic sectors, particularly the MSME sector. Furthermore, MSME financing distribution is more influenced by internal banking factors and the specific conditions of business actors than by aggregate macroeconomic indicators. Increased national economic growth is not necessarily accompanied by increased access to financing for MSMEs. Therefore, despite GDP growth, its impact on MSME financing distribution is not seen as significant in this study.

The results of this study align with those of Yusron, Supriyanto, and Tanjung (2023), who stated that economic growth is one of the external factors influencing MSME financing, but its influence is not always dominant compared to internal banking factors. An increase in Gross Domestic Product (GDP) does reflect national economic growth, but it

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is not necessarily accompanied by increased access to financing for MSMEs. This occurs because high economic growth is not always distributed evenly across all business sectors, particularly micro and small businesses. Therefore, the results of this study, which show that GDP has no significant effect on MSME financing distribution, indicate that Sharia Bank financing policies take into account the real conditions of customers more than aggregate macroeconomic indicators.

The Influence of the Open Unemployment Rate (TPT) on the Distribution of MSME Financing

The test results show that the Open Unemployment Rate (TPT) has a positive and significant effect on MSME financing distribution. This is indicated by a probability value of 0.0221, which is smaller than the 0.05 significance level, and a t-statistic value of 2.399037. The regression coefficient of 1082.901 indicates that an increase in the TPT will increase MSME financing distribution.

The results of this study indicate that increases in the unemployment rate are statistically accompanied by an increase in MSME financing. This finding contrasts with conventional economic views, which generally associate rising unemployment with a decline in economic activity and demand for financing. One possible explanation is that rising unemployment encourages some people to shift from the formal sector to independent business activities or entrepreneurship as a strategy to maintain income. This shift increases the need for business capital, thus increasing demand for MSME financing, including financing disbursed by Islamic banks. In this context, MSME financing through Islamic banks serves as a source of funding for people starting or expanding productive businesses when formal employment opportunities decline.

These findings indicate that MSME financing at Islamic banks has *countercyclical characteristics* , meaning it continues to support productive economic activity even when labor market conditions weaken. Therefore, the intermediary function of Islamic banks not only plays a role in channeling funds to the productive sector but also serves as a mechanism to support community economic resilience by providing access to financing for MSMEs. In the Indonesian economic context, the MSME sector often acts as a buffer against rising unemployment. Many individuals who lose their jobs then turn to micro and small businesses to maintain household income. Consequently, the need for productive financing increases, encouraging Islamic banks to channel financing to the MSME sector.

The results of this study are supported by research by Yusron, Supriyanto, and Tanjung (2023), which explains that changes in the community's economic conditions will affect the development of MSME financing at Islamic banks. Rising unemployment encourages people to create independent businesses as an alternative source of income, thus increasing the need for business capital. This condition leads to a greater demand for MSME financing from Islamic banks. Furthermore, research by Nasution (2023) also found that Islamic MSME financing contributes to increasing labor absorption and reducing the unemployment rate. Therefore, this study shows that the MSME sector can be an alternative source of labor absorption when formal employment opportunities decline.

The Impact of BI7DRR on the Distribution of MSME Financing

The results of the study indicate that BI7DRR has a positive and significant effect

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on MSME financing disbursement. This is indicated by a probability value of 0.0460, which is smaller than the 0.05 significance level, with a t-statistic value of 2.071195. The regression coefficient of 384.1909 indicates that an increase in BI7DRR will increase MSME financing disbursement.

In general, increases in benchmark interest rates are often associated with decreased demand for credit in the conventional financial system. However, this study shows a different relationship for MSME financing at Islamic banks. This situation may occur because Islamic financing mechanisms are not directly interest-based, but rather utilize contracts in accordance with Islamic principles. Therefore, the impact of changes in the BI7DRR on Islamic financing is not always negative. Furthermore, when the BI7DRR increases, some business actors may view Islamic financing as a more stable alternative funding source than interest-based financing. Consequently, demand for MSME financing at Islamic banks continues to increase. These findings indicate that monetary policy, as reflected in the BI7DRR, remains linked to the development of MSME financing, although its influence does not entirely follow the pattern observed in conventional banks.

The results of this study are supported by Muiz's (2023) research, which states that the benchmark interest rate still has a significant relationship with financing at Islamic Commercial Banks. Although the Islamic banking system does not use an interest mechanism, changes in the BI7DRR remain an indicator of national economic conditions that influence financing policies and business actors' behavior in seeking funding sources. Furthermore, research by Yusron, Supriyanto, and Tanjung (2023) also explains that external factors, such as the benchmark interest rate, are one of the determinants influencing the development of MSME financing at Islamic Commercial Banks. Therefore, the results of this study, which show that the BI7DRR has a positive and significant effect on the distribution of MSME financing, demonstrate that monetary policy remains related to the development of Islamic financing, even though its operational mechanisms differ from those of conventional banking.

CONCLUSION

Based on the results of research on the influence of Gross Domestic Product (GDP), Open Unemployment Rate (TPT), Poverty Percentage, Inflation, and BI7DRR on the distribution of MSME financing (OS_PUMKM) in the period 2015Q1–2024Q4, it can be concluded that macroeconomic factors have different influences on the distribution of MSME financing at Sharia Banks in Indonesia.

First, Gross Domestic Product (GDP) does not significantly influence the distribution of MSME financing. This indicates that increases or decreases in national economic growth do not directly influence financing distribution decisions by Islamic banks. This condition indicates that financing decisions are more influenced by internal banking factors, the quality of prospective customers, financing risk profiles, and each bank's business strategy than by changes in aggregate economic growth. Second, the Open Unemployment Rate (TPT) has a positive and significant effect on the distribution of MSME financing. This finding indicates that the increasing unemployment rate drives the growing need for entrepreneurship as an alternative source of income. This condition increases the demand for business capital financing from the MSME sector, thus encouraging Islamic banks to channel greater financing to micro, small, and medium

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entrepreneurs. Third, the percentage of poverty has a negative and significant effect on the distribution of MSME financing. The higher the poverty rate, the lower the distribution of MSME financing by Islamic banks. This condition reflects that the increasing number of poor people causes a lower ability to meet financing requirements, both in terms of business capacity, repayment ability, and business feasibility. Therefore, Islamic banks tend to be more selective in distributing financing.

Fourth, inflation did not significantly impact MSME financing disbursement. This result indicates that fluctuations in the inflation rate during the study period did not significantly impact MSME financing disbursement. This is possible because the inflation rate during the study period remained relatively within a controllable range and therefore did not significantly disrupt Islamic banking financing activities. Fifth, the BI 7-Day Reverse Repo Rate (BI7DRR) had a positive and significant impact on MSME financing disbursement. This finding indicates that changes in Bank Indonesia's policy interest rate do not always negatively impact Islamic banking financing. Conversely, increases in the BI7DRR during the study period were actually accompanied by increased MSME financing disbursement. This condition can be explained by the characteristics of the Islamic financing system, which does not use a direct interest mechanism, and the possibility of some business actors shifting from conventional financing to Islamic financing when interest rates increase.

Overall, this study shows that macroeconomic factors have different influences on the distribution of MSME financing to Islamic banks in Indonesia. The Open Unemployment Rate, poverty rate, and BI7DRR variables are proven to have a significant influence on MSME financing, while GDP growth and inflation do not show a significant influence. These findings indicate that the dynamics of MSME financing in Islamic banks are not only influenced by general macroeconomic conditions, but also by market characteristics, the behavior of MSME actors, and the financing policies and strategies implemented by Islamic banks.

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