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INFLUENCE INFLATION, LEVEL UNEMPLOYMENT OPEN AND HEALTH AGAINST EXTREME POVERTY IN INDONESIA FROM AN ISLAMIC ECONOMIC PERSPECTIVE 2000-2024 USING A VECTOR ERRORS CORRECTION MODEL APPROACH

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Abstract :

This study aims to analyze the influence of inflation, unemployment, and adequate sanitation on extreme poverty in Indonesia from an Islamic economic perspective. Using time series data from 2000–2024 and a Vector Error Correction Model (VECM) approach, this study examines the long-term and short-term relationships between variables. The analysis shows that inflation, unemployment, and health significantly influence extreme poverty in the long term. This means that economic factors and the quality of the community's living environment play a significant role in determining the level of extreme poverty in Indonesia. However, in the short term, only the open unemployment rate variable significantly influences extreme poverty, while inflation and health have not shown any significant impact. From an Islamic economic perspective, the results of this study emphasize the importance of implementing the principles of justice and balance in economic management, such as suppressing inflation, expanding employment opportunities, and increasing access to healthcare as an effort to reduce extreme poverty and achieve equitable prosperity in Indonesia.

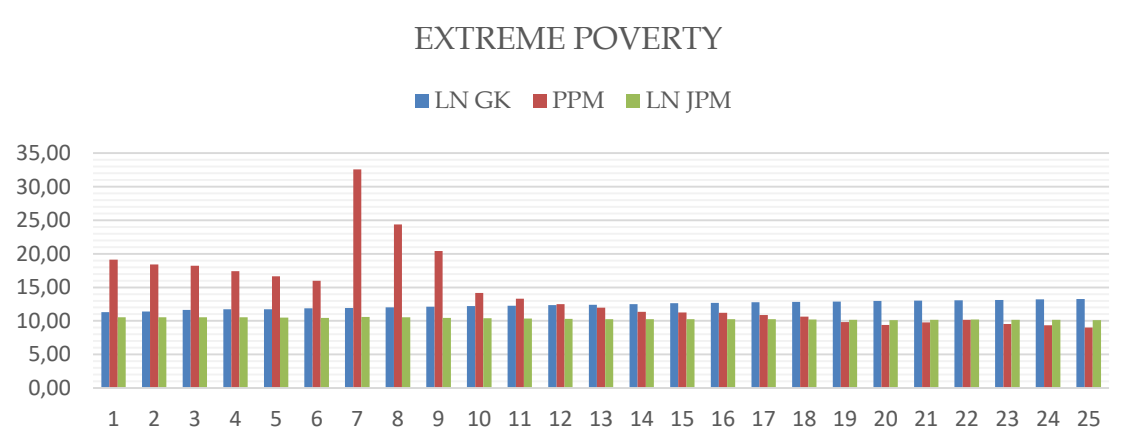
Keywords: *Inflation, Open Unemployment Rate, Health, Extreme Poverty, Islamic Economics.*

INTRODUCTION

Extreme poverty remains a major challenge to Indonesia's economic development, despite the government's positive economic growth in recent years. Extreme poverty is a condition in which a person is unable to meet basic needs such as food, clean water, adequate sanitation, health care, shelter, education, and access to information, not only limited to income but also access to social services (Parolin & Brady, 2019). According to data from the Central Statistics Agency (BPS), in March 2024, the number of poor people in Indonesia reached 25.22 million, or approximately 9.03% of the total population. Of this number, approximately 5 million people live in extreme poverty, with per capita expenditure of less than IDR 11,633 per day. This fact shows that there is

quite a sharp economic inequality and that the distribution of national development results is not yet optimal. (Putri, et al, 2022).

In general, extreme poverty reflects not only an individual's inability to meet basic needs but also the weakness of the economic system in providing equitable access to resources, employment , and health and education services. Various macroeconomic factors contribute to the rise or fall of extreme poverty rates, particularly inflation, open unemployment, and public health conditions. These three are interrelated and influence the ability of poor households to survive changing economic pressures. The following table data shows extreme poverty in Indonesia from 2000 to 2024.



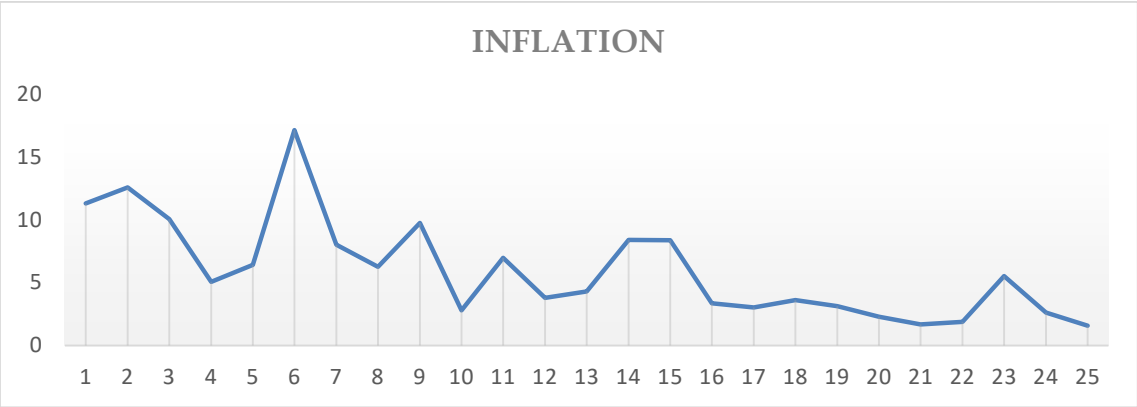
Graph 1.1 Extreme poverty in Indonesia 2000-2024.

Data on extreme poverty in Indonesia for the period 2000–2024 shows quite significant dynamics in three main indicators, namely the poverty line, the percentage of the poor population, and the number of poor people. Based on the results of data processing, it is clear that the poverty line has increased progressively from Rp.82,640.00 to Rp.579,372.50. The increase in the poverty line does not fully imply an increase in the number or percentage of the poor population. In the initial period, the percentage of the poor population was recorded at 19.14% with a total of 38.740 million people, then experienced a gradual decline to reach 9.03% with a total of 25.219 million people. This phenomenon indicates an improvement in the condition of community welfare and the effectiveness of poverty alleviation programs, even though the minimum needs standard used as a reference for the poverty line continues to increase.

This deviation may be influenced by external factors, such as economic turmoil, rising prices of basic commodities, or changes in calculation methods. In general, the main trend continues to show that even though the poverty line is getting higher, the number and percentage of poor people continues to decline, so that it can be interpreted as a positive result of economic development efforts and social policies.

Some of the main factors thought to contribute to the high level of extreme poverty in Indonesia include inflation, open unemployment, and health. One of them is that inflation is one of the variables that has the most

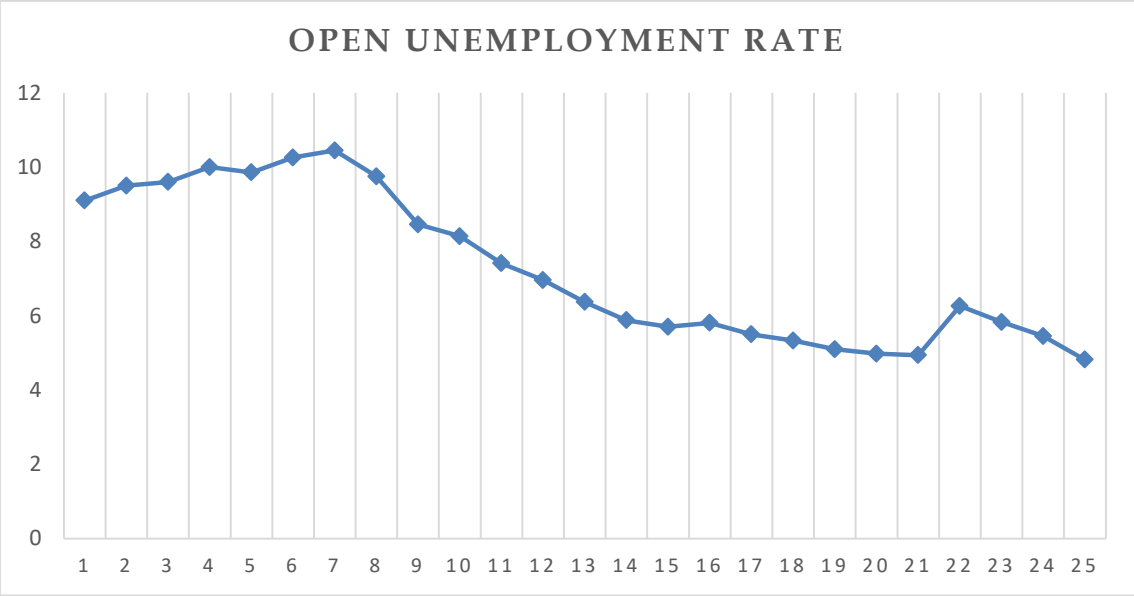
influence on the socio-economic conditions of poor people. When inflation rises, the prices of basic necessities also rise, while the purchasing power of low-income households does not experience a commensurate increase (Kapoor, 2023). Between 2000 and 2024, Indonesia's inflation fluctuated, reaching its lowest point in 2020 due to the pandemic, and then rising again in 2022 due to the energy crisis and geopolitical tensions. Price pressures from the food, transportation, and energy sectors exacerbate the situation for poor households, whose expenditures are largely focused on basic needs. Figure 1.2 below shows inflation data in Indonesia from 2000 to 2024.



Graph 1.2 Inflation in Indonesia 2000-2024

Based on graph 1.2 above, the data shows quite sharp fluctuations over time. At the beginning of the period, inflation was recorded as relatively high, ranging from 10–12%, even reaching a peak of 17.11%. After that, inflation showed a downward trend with several spikes, for example in the range of 8–9% and 5–6%, before finally stabilizing at a low level of around 1.57–3.61%. This pattern indicates that the economy experienced significant price pressures during certain periods, possibly due to external factors such as the economic crisis or rising prices of strategic commodities. However, inflation was gradually suppressed to more manageable levels.

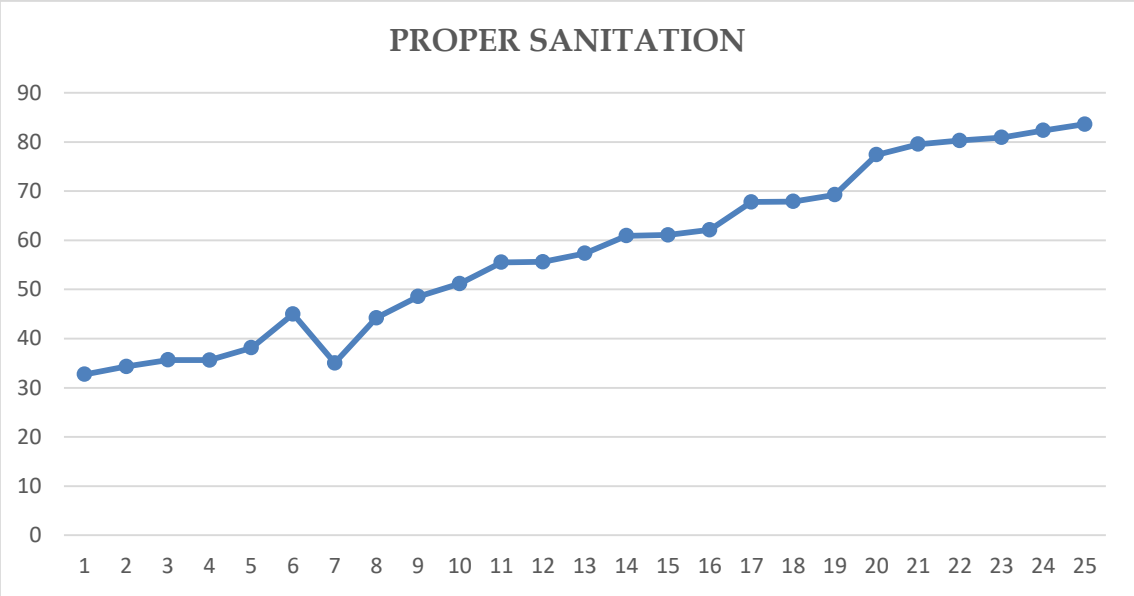
Furthermore, open unemployment is also a serious problem. Indonesia's open unemployment rate (TPT) was recorded at 6.18 % , then decreased to 5.32% in August 2022. However, this figure does not reflect comprehensive improvement due to the still high proportion of informal workers and low labor productivity. Furthermore, the mismatch between education and labor market needs exacerbates unemployment, especially among those of productive age (Munandar & Ridwan, 2022). High unemployment rates not only indicate a waste of human resources but also increase the risk of extreme poverty due to the lack of a steady income. Below is graph 1.3 on the open unemployment rate data in Indonesia from 2000 to 2024.



Graph 1.3 Open Unemployment Rate in Indonesia 2000-2024

In chart 1.3 above, Indonesia's Open Unemployment Rate (TPT) data for the 2000-2024 period shows a relatively consistent decline, from an initial range of around 9–10% to 4.82% at the end of the period. This condition indicates that although the unemployment rate was initially quite high and reached 10.45%, there has been a gradual and significant improvement with the TPT falling below 6% as an indication of increased employment opportunities and the effectiveness of labor absorption policies. However, there are small fluctuations, for example when the TPT rose back to 6.26% after previously being stable below 5%, which is likely influenced by external factors such as the global economic slowdown or domestic factors such as the addition of new workers. Overall, this data reflects an improvement in employment conditions, although the challenge of maintaining sustainable job creation remains a concern.

In addition, public health has a vital role in determining economic well-being. Households with poor health status tend to experience decreased productivity and increased expenditure burdens, especially for medical treatment and care. Data from the Ministry of Health shows that areas with low health service coverage and high stunting rates tend to have greater levels of extreme poverty. (Andina & Wahyudi, 2024). Inequality in access to quality health services deepens the socio-economic gap and hinders the mobility of poor people to escape the cycle of poverty. Below is table 1.4 which shows health data in Indonesia from 2000 to 2024.



Graph 1.4 Health in Indonesia 2000-2024

Data on the percentage of access to proper sanitation in Indonesia from 2000 to 2024 shows a significant increase, from 32.72% at the beginning of the period to 83.6% at the end. In the initial phase, the proportion of people with access to proper sanitation was still low, ranging from 30–40%, but gradually continued to increase, especially after passing the 45% mark and continuing to exceed 60% in the middle period. The acceleration of growth was clearly visible in the final phase when the percentage of access to proper sanitation exceeded 70% to nearly 84%. This condition illustrates substantial progress in the provision of basic infrastructure, increasing public awareness of the importance of environmental health, and the success of government policies in the sanitation sector. Based on the overall data, it shows improvements in the quality of life of the community that go hand in hand with the increase in the availability of sanitation facilities.

The problem of extreme poverty from an Islamic economic perspective is not only seen from an economic perspective, but also requires attention to the aspect of social justice which is the main principle in sharia. High inflation can erode people's purchasing power, especially those living below the poverty line, thus creating injustice in the distribution of welfare (Faradila & Imaningsih, 2022). Furthermore, the open unemployment rate reflects an imbalance in the utilization of human resources, which results in unequal economic opportunities for all levels of society (Nabila & Nawawi, 2022). Furthermore, access to health services is a very important basic need, because poor health can incur additional costs that worsen conditions of poverty (Impact of Poverty on Health, 2022). Extreme poverty itself is a condition in which a person is unable to meet the minimum needs of a decent life, thus requiring effective social and economic intervention (Kamruzzaman, 2021). As stated in the Quran, Surah Al-Hashr, verse 7, Allah SWT says.

مَّآ أَفَآءَ ٱللَّهُ عَلَىٰ رَسُولِهِۦ مِنْ أَهْلِ ٱلْقُرَىٰ فَلِلَّهِ وَلِلرَّسُولِ وَلِذِى ٱلْقُرْبَىٰ وَٱلْيَتَٰمَىٰ وَٱلْمَسَٰكِينِ وَٱبْنِ ٱلسَّبِيلِ كَىْ لَا يَكُونَ دُولَةًۢ بَيْنَ ٱلْأَغْنِيَآءِ مِنكُمْ ۚ وَمَآ ءَاتَىٰكُمُ ٱلرَّسُولُ فَخُذُوهُ وَمَا نَهَىٰكُمْ عَنْهُ فَٱنتَهُوا۟ ۚ وَٱتَّقُوا۟ ٱللَّهَ ۖ إِنَّ ٱللَّهَ شَدِيدُ ٱلْعِقَابِ ﴿٧﴾

Meaning: *Whatever booty (fai') Allah gave to His Messenger from the people of the cities, it was for Allah, for the Messenger, for the relatives of the Messenger, orphans, poor people and people who were traveling, so that the treasure should not only circulate among the rich among you. What did the Apostle give you then accept him. And what he forbids you, leave it. And fear Allah. Indeed, Allah is very severe in punishment.*

This verse emphasizes the importance of fair distribution of wealth so that it is not concentrated only in certain groups, but is distributed evenly to groups in need, such as the poor and orphans. Sharia instruments such as zakat, infaq, and waqf are designed to ensure social justice by distributing assets from the rich to the less fortunate. Zakat serves as a mechanism for wealth purification and redistribution, which is obligatory for Muslims; infaq is a voluntary donation to help the community; and waqf is wealth donated for the ongoing public good. All these instruments reflect the maqashid sharia which prioritizes welfare, social justice, and the eradication of extreme poverty within the framework of Islamic values.

This research is based on the Structuralist Poverty Theory introduced by Raul Prebisch. This theory holds that poverty is not solely caused by individual weakness, but rather arises as a result of an unbalanced socio-economic structure and economic policies that do not favor the wider community. Variables such as inflation that erodes purchasing power, unemployment that indicates disharmony in the labor market, and limited access to health services are structural factors that systematically deepen the trap of extreme poverty. This means that this theory is seen as relevant to explain the relationship between inflation, open unemployment, and health with the phenomenon of extreme poverty from a structural and systemic perspective.

Various previous research reviews have examined the factors influencing extreme poverty. Unfortunately, existing studies tend to address the influence of economic variables on poverty in a partial and isolated manner. Karina Ismalia's (2024) research only examined the influence of minimum wages and investment on multidimensional poverty without including fundamental aspects such as inflation and health (Ismalia, 2024). Similarly, research Risthi Dwi Oktaviani (2024) highlights the importance of education and economic growth in reducing extreme poverty, but has not considered the variables of unemployment and health which are actually key factors in inclusive development (Oktaviani, 2024).

Furthermore, research by Wahyudi's study (2024) which highlights poverty from an Islamic normative perspective has not integrated a quantitative approach, thus leaving a gap in the literature. In fact, the integration of the normative sharia approach and empirical analysis is very necessary to

formulate more effective value-based public policies. Maqashid sharia, which includes protection of religion, soul, mind, descendants, and property, is the ideal basis for formulating holistic poverty alleviation policies (Andina & Wahyudi, 2024).

Based on a review of previous research, this study aims to fill the gap in understanding regarding the influence of inflation, open unemployment and health on extreme poverty in Indonesia. This research is expected to expand the literature on the application of Islamic economics in macro policy issues, as well as become a reference for policy makers in developing more inclusive and sustainable extreme poverty alleviation programs. The results are also expected to encourage the development of productive zakat, a sharia social security system, and an Islamic labor market design that is capable of creating justice and economic blessings.

Thus, the objective of this study is to quantitatively analyze the effects of inflation, open unemployment, and health on extreme poverty in Indonesia from an Islamic economic perspective, using the Vector Error Correction Model approach. The Vector Error Correction Model (VECM) is a method in time series analysis used when there is a long-term and short-term relationship between two or more variables (Khoirudin & Ismaulida, 2023). This study contributes theoretically and practically to efforts to reduce extreme poverty systematically and based on Islamic values.

RESEARCH METHOD

This research uses a quantitative method using secondary sources. The data analysis technique used in this study is the Vector Error Correction Model (VECM). VECM (or Vector Error Correction Model) is a method derived from VAR. The assumptions that need to be met are the same as VAR, except for the stationarity issue. Unlike VAR, VECM must be stationary in the first differentiation and all variables must have the same stationarity , that is, differentiable in the first derivative. Before determining the appropriate model to use for the data in this study, there are several stages that must be passed first, namely:

Data Stationarity Test

Time series economic data is generally stochastic (has a non-stationary trend / the data has a unit root). If the data has a unit root, then its values will tend to fluctuate outside of its mean value, making it difficult to estimate a model (Vinogradov, 2023). The Unit Root Test is a concept that has recently become increasingly popular for testing the stationarity of time series data. This test was developed by Dickey and Fuller, using the Augmented Dickey-Fuller Test (ADF). The stationarity test used is the ADF (Augmented Dickey-Fuller) test with a significance level of 5% (Aktivani, 2020).

Optimal Lag Length Test

VAR estimation is sensitive to the lag length used. The optimal number of lags is determined based on the AIC, SC, or HQ criteria. Determining the optimal lag is important to avoid autocorrelation in the VAR system. (Iskandar,

2019).

VAR Model Stability Test

VAR stability testing needs to be performed before further analysis. If the VAR model is unstable, then the results of the Impulse Response Function and Variance Decomposition become invalid. Therefore, it is important to ensure that the VAR model meets the stability criteria so that the analysis results are valid and reliable (Rakhmawati, 2024).

Granger Causality Analysis

The causality test aims to determine the direction of the causal relationship between variables, whether one variable influences another, influences each other, or is unrelated. If y causes z, then the current value of z is influenced by the values of y and z in the previous period. (Duryadi, 2024).

Cointegration Test

As stated by Engle-Granger The presence of non-stationary variables indicates the possibility of a long-term relationship between variables in the system. Cointegration test is used to determine this relationship. If the variables in a model are cointegrated, it means that there is a long-run relationship between them. This test can be carried out using the Johansen Cointegration method (Cahya, et al, 2025).

Empirical VAR/VECM Model

Once cointegration is known, the next step is testing using the error correction method. If there are differences in the degree of integration between the test variables, testing is performed jointly using the long-run equation and the error correction equation, once cointegration is known to occur in the variables. The difference in the degree of integration for cointegrated variables is referred to by Lee and Granger as multicointegration. However, if no cointegration phenomenon is found, then the test is continued using the first difference variable. VECM is a form of VAR that is restricted due to the presence of non-stationary but cointegrated data forms. The VECM is often referred to as a VAR design for nonstationary series with cointegration relationships. The VECM specification restricts the long-term relationships of endogenous variables to converge to their cointegration relationships, while still allowing for short-term dynamics (Iskandar, 2019).

Impulse Response Function Analysis

IRF analysis is a method used to determine the response of an endogenous variable to a specific shock. IRF is also used to examine shocks from one variable to another and how long these effects persist (Pretis et al., 2020). Through IRF, the response to a change in the independent variable of one standard deviation can be observed. IRF traces the impact of a disturbance of one standard error in one endogenous variable on other endogenous variables. Innovations in one variable will directly affect that variable and spread to other endogenous variables through VAR dynamics.

Variance Decomposition Analysis

Forecast Error Variance Decomposition (FEVD) describes the variation in a variable against the components of other variables in a VAR. The information

conveyed in FEVD is the proportion of sequential movements caused by the shock itself and other variables (Widarjono, 2007).

FINDINGS AND DISCUSSION

The method used to test data stationarity is the ADF (Augmented Dickey-Fuller) test with a significance level of 5%. If the t-ADF value is smaller than the MacKinnon critical value, then the data is considered stationary or does not contain a unit root. This unit root test is carried out starting from the level level to the first difference. Because most of the data at the level level does not meet the requirements, the test is continued on the 1st difference data.

Table 1.1 Unit Root Test Results

Method	Statistics	Prob.**	Cross-Sections	Obs
Null: Unit root (assumes common unit root process)				
poverty line	-7.96665	0.0000	6	136
Inflation	-8.63573	0.0000	6	136
Open unemployment rate	83.4192	0.0000	6	136
Health	187,062	0.0000	6	138

Source: eviews 10 data processing results

Based on Table 1.1, the results of the unit root test indicate that the variables GK, I, TPT, and SL have reached stationarity at the first difference level. This is indicated by the ADF probability value of 0.0000, which is less than 0.05. Therefore, it can be concluded that the data on these variables have met the stationarity requirements.

Table 1.2 Optimal Lag Test Results

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-92.46204	NA	0.000211	8.561916	8.858132*	8.636414
1	-48.24125	61.52457*	0.000116*	7.847065*	9.920576	8.368547*

Source: eviews 10 data processing results

Table 1.2 shows that the optimal lag occurs at lag 1. This optimal lag can be identified by showing the number of asterisks on each criterion in the table.

Table 1.3 Results of the Var Model Stability Test

Root	Modulus
0.063245 - 0.636542i	0.639677
0.063245 + 0.636542i	0.639677

-0.296723 - 0.443370i	0.533499
-0.296723 + 0.443370i	0.533499
0.357255	0.357255
-0.298351	0.298351

Source: eviews 10 data processing results

Based on table 1.3, the results of the stability test of the var model in the first difference condition with lag 1 show that the model is stable. This is proven by the modulus values of all coefficients being below 1, with none exceeding this limit.

Table 1.4 Granger Causality Test Results

Null Hypothesis:	Obs	F-Statistic	Prob.
PPM does not Granger Cause GK	24	0.00034	0.9854
GK does not Granger Cause PPM		3.78142	0.0653
JPM does not Granger Cause GK	24	0.40602	0.5309
GK does not Granger Cause JPM		0.99991	0.3287
I do not Granger Cause GK	24	4.23158	0.0523
GK does not Granger Cause I		10.6844	0.0037
TPT does not Granger Cause GK	24	0.14114	0.7109
GK does not Granger Cause TPT		0.72435	0.4043
SL does not Granger Cause GK	24	0.15013	0.7023
GK does not Granger Cause SL		5.12509	0.0343
JPM does not Granger Cause PPM	24	4.63351	0.0431
PPM does not Granger Cause JPM		2.67384	0.1169
I do not Granger Cause PPM	24	21.3643	0.0001
PPM does not Granger Cause I		1.95862	0.1763
TPT does not Granger Cause PPM	24	13.8410	0.0013
PPM does not Granger Cause TPT		2.18444	0.1543
SL does not Granger Cause PPM	24	3.20573	0.0878
PPM does not Granger Cause SL		2.72269	0.1138
I do not Granger Cause JPM	24	19.6102	0.0002
JPM does not Granger Cause I		8.04357	0.0099
TPT does not Granger Cause JPM	24	2.93702	0.1013
JPM does not Granger Cause TPT		1.25561	0.2751
SL does not Granger Cause JPM	24	0.24802	0.6236
JPM does not Granger Cause SL		0.17422	0.6806
TPT does not Granger Cause I	24	8.88973	0.0071
I do not Granger Cause TPT		2.61251	0.1209
SL does not Granger Cause I	24	10.4931	0.0039
I do not Granger Cause SL		22.2461	0.0001

SL does not Granger Cause TPT	24	0.78876	0.3845
TPT does not Granger Cause SL		1.29609	0.2678

Source: eviews 10 data processing results

Based on the results of the Granger Causality test, it was found that variable (I) did not affect (GK) (0.0523 > 0.05), and vice versa, (GK) but influenced (I) (0.0037 < 0.05), which indicates a one-way causal relationship. In addition, (I) had a significant influence on (PPM) (0.0001 < 0.05), but did not apply vice versa (0.1763 > 0.05). A two-way relationship also occurred between (I) and (JPM), each with probability values of 0.0002 and 0.0099 (< 0.05), which indicates a causal relationship between the two variables.

On the other hand, there is no causal relationship between (TPT) and (GK), either one-way or two-way (0.7109 > 0.05). However, (TPT) has an effect on (PPM) (0.0013 < 0.05), while the reverse direction is not significant (0.1543 > 0.05). The relationship between (TPT) and (JPM) also does not show a reciprocal influence (0.1013 > 0.05).

Furthermore, (SL) does not affect (GK) (0.7023 > 0.05), but (GK) affects (SL) (0.0343 < 0.05). In addition, no causal relationship was found between (SL) and (PPM) (0.0878 > 0.05), or between (SL) and (JPM) (0.6236 > 0.05), either in the direct or reverse direction.

Overall, the results of the Granger causality test show that inflation is the strongest variable and has the strongest causal influence on the extreme poverty indicators (GK, PPM, JPM). While unemployment only affects the percentage of the poor population, health has a more indirect effect through the poverty line. Thus, the three independent variables (inflation, unemployment, and health) have a dynamic relationship with extreme poverty, both in the short and long term, which emphasizes the importance of economic stability and equitable distribution of prosperity within the framework of Islamic economic values.

Table 1.5 Results of the Johansen Cointegration Test

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistics	0.05 Critical Value	Prob.**
None *	0.975274	185.9291	95.75366	0.0000
At most 1 *	0.841715	104.5315	69.81889	0.0000
At most 2 *	0.706692	63.97761	47.85613	0.0008
At most 3*	0.650510	36.99391	29.79707	0.0062
At most 4	0.346828	13.86576	15.49471	0.0867
At most 5*	0.184821	4.495645	3.841466	0.0340

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistics	0.05 Critical Value	Prob.**
None *	0.975274	81.39756	40.07757	0.0000
At most 1 *	0.841715	40.55392	33.87687	0.0069
At most 2	0.706692	26.98370	27.58434	0.0595
At most 3*	0.650510	23.12815	21.13162	0.0258

At most 4	0.346828	9.370119	14.26460	0.2566
At most 5*	0.184821	4.495645	3.841466	0.0340

Source: eviews 10 data processing results

Based on table 1.5, the Trace Statistic value is compared with the critical value at a 5% confidence level. It turns out that the Trace Statistic value (185.9291) is higher than the critical value at a 5% confidence level (95.75366). In addition, the Max Eigen Statistic value (81.39756) is also greater than the critical value (40.07757). So this shows that there is no cointegration disturbance in the data used, based on these results, it can be confirmed that the *VECM regression model analysis* can be continued.

Table 1.6 Empirical VAR/VECM model test

Cointegrating Eq:	CointEq1
LOG(GK(-1))	1,000,000
(PPM(-1))	0.013890 (0.00569) [2.44319]
LOG(JPM(-1))	-2.213917 (0.49924) [-4.43457]
I(-1)	-0.064904 (0.00468) [-13.8548]
TPT(-1)	0.150933 (0.02353) [6.41578]
SL(-1)	-0.042495 (0.00517) [-8.21944]
C	-0.023173

Error Correction:	D(LOG(GK),2)	D(PPM,2)	D(LOG(JPM), 2)	D(I,2)	D(TPT,2)	D(SL,2)
CointEq1	-0.093564 (0.06903) [-1.35546]	-9.427252 (6.79463) [-1.38746]	-0.201848 (0.07174) [-2.81351]	16.71203 (7.18244) [2.32679]	-0.966246 (0.89426) [-1.08050]	12.37866 (5.61307) [2.20533]
D(LOG(GK(-1)),2)	-0.588320 (0.20131) [-2.92249]	26.99078 (19,8155) [1.36211]	-0.020009 (0.20922) [-0.09564]	-46.23929 (20.9464) [-2.20750]	-0.421370 (2.60796) [-0.16157]	-17.77632 (16.3696) [-1.08593]
D(PPM(-1),2)	0.001065 (0.00308)	-0.031696 (0.30321)	0.005728 (0.00320)	-0.573145 (0.32052)	-0.053048 (0.03991)	-0.013234 (0.25049)

	[0.34576]	[-0.10453]	[1.78916]	[-1.78817]	[-1.32931]	[-0.05283]
D(LOG(JPM(-1)),2)	-0.041801	-41.75680	-0.454889	43.06691	7.273215	-7.481163
	(0.30316)	(29.8412)	(0.31508)	(31.5444)	(3.92747)	(24,6519)
	[-0.13789]	[-1.39930]	[-1.44371]	[1.36528]	[1.85188]	[-0.30347]
D(I(-1),2)	-0.002730	-0.017444	-0.008104	0.159994	0.004271	0.048739
	(0.00408)	(0.40150)	(0.00424)	(0.42442)	(0.05284)	(0.33168)
	[-0.66935]	[-0.04345]	[-1.91160]	[0.37697]	[0.08082]	[0.14694]
D(TPT(-1),2)	-0.013301	5.121449	0.012230	-0.429697	-0.532887	-2.775506
	(0.01585)	(1.55969)	(0.01647)	(1.64871)	(0.20527)	(1.28847)
	[-0.83942]	[3.28363]	[0.74262]	[-0.26063]	[-2.59597]	[-2.15411]
D(SL(-1),2)	-7.83E-05	0.101904	0.005964	0.241211	-0.045966	-0.325478
	(0.00298)	(0.29324)	(0.00310)	(0.30998)	(0.03859)	(0.24225)
	[-0.02628]	[0.34751]	[1.92616]	[0.77815]	[-1.19102]	[-1.34357]
C	-0.008921	0.201983	-0.002775	0.067040	-0.054473	-0.093617
	(0.00850)	(0.83649)	(0.00883)	(0.88424)	(0.11009)	(0.69103)
	[-1.04977]	[0.24146]	[-0.31414]	[0.07582]	[-0.49479]	[-0.13547]

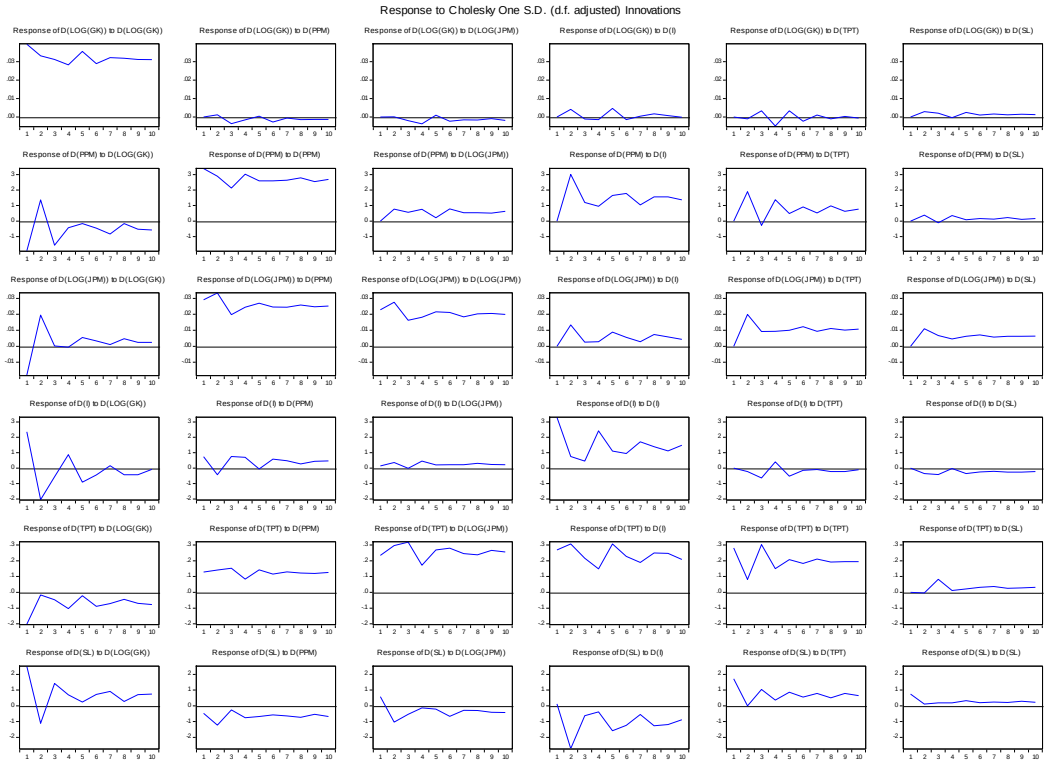
Source: eviews 10 data processing results

Based on the results of the VECM test, it was found that in the long-term relationship, the variables of inflation (I), open unemployment rate (TPT), and proper sanitation (SL) had a t-statistic value greater than the t-table value of 2.093024. This indicates that these three variables have a significant influence on extreme poverty in the long term.

Furthermore, in the short-term relationship, the VECM model estimation results indicate that only the open unemployment rate (TPT) variable has a significant influence on extreme poverty. This is indicated by the t-statistic value of 2.59597, which is greater than the t-table value of 2.093024. Meanwhile, the inflation (I) and proper sanitation (SL) variables have t-statistic values smaller than the t-table, so they do not have a significant influence in the short term.

Thus, it can be concluded that in the long term, inflation, open unemployment rate, and adequate sanitation have a significant influence on extreme poverty in Indonesia. However, in the short term, only the open unemployment rate has a significant effect on extreme poverty.

Table 1.6 Impulse Response Function Analysis Test



Source: eviews 10 data processing results

The graph above shows how the response of extreme poverty to each independent variable used in the GK variable can be seen that Gk has a positive trend (+) against I in the first and second periods then starts a negative period in period 3 and so on until it returns to having a stable positive trend. The GK response to TPT has a negative trend in the first to second periods and starts a positive trend from period 3 onwards. However, in the SL variable, it can be seen that GK has a positive trend indicating there is no significant influence between the SL variable and GK. In the PPM variable, it can be seen in the three tables showing a positive trend from period 1-10 for the response to I, but the response to the TPT variable experiences a negative trend in period 3, and the response to the SL variable shows a stable trend. Meanwhile, the JPM response to the I, TPT, & SL variables experiences a fluctuating positive period.

Table 1.7 Variance Decomposition Analysis test

Variance Decomposition of D(LOG(GK)): Period	SE	D(LOG(GK))	D(PPM)	D(LOG(JPM))	IN)	D(TPT)	D(SL)
1	0.039555	100,0000	0.000000	0.000000	0.000000	0.000000	0.000000
2	0.051906	98.96698	0.048763	0.000664	0.626773	0.037024	0.319797
3	0.060876	98.32690	0.388890	0.108045	0.486058	0.341848	0.348261
4	0.067463	97.70711	0.364829	0.385320	0.437660	0.818948	0.286131
5	0.076510	97.53195	0.287474	0.317400	0.704996	0.830720	0.327460
6	0.081923	97.52705	0.365309	0.355912	0.645589	0.804298	0.301841
7	0.088048	97.77681	0.319561	0.338464	0.561288	0.710641	0.293237
8	0.093712	97.91997	0.306292	0.330937	0.529410	0.639588	0.273799

9	0.098810	98.07379	0.292118	0.305187	0.481815	0.576187	0.270898
10	0.103622	98.18179	0.280704	0.309480	0.438209	0.527248	0.262565

Source: eviews 10 data processing results

In the figure above, it can be seen how the contribution or composition of the influence of each independent variable on the dependent variable. In the first period, variables I, TPT, and SL have not yet contributed to the GK variable, then in the 2nd period, the independent variables began to contribute to the dependent variable, where variable I contributed 0.62%, TPT 0.037%, and SL 0.31%, then in the 5th period, the GK variable's contribution decreased and other independent variables increased, and in the 10th period, the GK value decreased and other variables increased, where the value of I was 0.43%, TPT 0.52%, and SL 0.26%. This means that the poverty line is influenced by inflation, open unemployment rates, and proper sanitation in the short term. However, in the long term, this influence will continue to increase. The model shows that it involves current variables and lag periods.

Variance Decomposition of D(PPM):

Period	SE	D(LOG(GK))	D(PPM)	D(LOG(JPM))	IN)	D(TPT)	D(SL)
1	3.893528	24.32768	75.67232	0.000000	0.000000	0.000000	0.000000
2	6.238240	14.33653	51.18221	1.535262	23.30050	9.277500	0.368002
3	6.913329	16.81888	51.23473	1.913149	21.99290	7.717889	0.322454
4	7.793688	13.53841	55.48001	2.468626	18.80406	9.247027	0.461863
5	8.401304	11.68950	57.38167	2.186163	20.04646	8.287060	0.409150
6	9.069834	10.28775	57.48814	2.614709	21.08528	8.140422	0.383698
7	9.572847	10.00821	59.24559	2.657392	20.11583	7.612982	0.359996
8	10.16283	8.903989	60.16554	2.643277	20.22090	7.695898	0.370389
9	10.63917	8.366296	60.65942	2.649172	20.61057	7.366067	0.348479
10	11.12099	7.932390	61.37688	2.746694	20.37272	7.231327	0.339987

Source: eviews 10 data processing results

In the first period, variables I, TPT, and SL have not contributed to the PPM variable, then in the second period, the independent variables began to contribute to the dependent variable, where variable I contributed 23.30%, TPT 9.27%, and SL 0.36%, then in the fifth period, the PPM variable's contribution decreased and other independent variables increased, and in the tenth period, the PPM value decreased and other variables increased, where the value of I was 20.37%, TPT 7.23%, and SL 0.33%. This means that the percentage of poor people is influenced by inflation, open unemployment rates, and proper sanitation in the short term. However, in the long term, this influence will continue to increase. The model shows that it involves current variables and lag periods.

Variance Decomposition of D(LOG(JPM)):

Period	SE	D(LOG(GK))	D(PPM)	D(LOG(JPM))	IN)	D(TPT)	D(SL)
1	0.041110	19.28172	50.02680	30.69148	0.000000	0.000000	0.000000
2	0.068054	15.24351	42.15221	27.66012	3.845236	8.509674	2.589245

3	0.073648	13.01645	43.21830	28.47183	3.404483	8.836570	3.052365
4	0.080427	10.91929	45.47886	28.96605	2.981485	8.775971	2.878341
5	0.088923	9.317856	46.41580	29.57443	3.426551	8.429185	2.836174
6	0.095924	8.129270	46.46629	30.26860	3.281045	8.864281	2.990517
7	0.101311	7.299744	47.44971	30.42678	3.021720	8.798582	3.003468
8	0.107588	6.664268	47.80782	30.51235	3.151152	8.870910	2.993501
9	0.113075	6.082337	48.03249	30.91819	3.118176	8.837263	3.011550
10	0.118298	5.600053	48.40215	31.07449	2.981642	8.903844	3.037823

Source: eviews 10 data processing results

In the first period, variables I, TPT and SL did not have any contribution to the JPM variable, then in the second period the independent variables began to contribute to the dependent variable, where variable I contributed 3.84%, TPT 8.50% and SL 2.58% then in the fifth period the JPM variable.

DISCUSSION

The Impact of Inflation on Extreme Poverty in Indonesia

Based on the results of the long-term VECM model estimation test, it was obtained that the inflation variable at lag 1 had a t-count value of 13.8548 which was absolutely greater than the t-table of 2.093024. These findings indicate that inflation has a significant impact on the level of extreme poverty in Indonesia in the long term. This means that every 1% increase in inflation in one period has the potential to increase the extreme poverty rate by 13% in the current period. Increased inflation will have an impact on increasing levels of extreme poverty. When prices of goods and services increase continuously, especially low-income groups will decline, thus worsening their economic conditions and pushing more people into the extreme poverty category.

These results align with Raul Prebisch's Structuralist Poverty Theory, which states that poverty is not solely caused by individual weakness, but by unfair social and economic structures. In this context, inflation reflects structural inequalities within the economic system. Price increases that are not balanced by increases in the income of lower-class people indicate an uneven distribution of resources. Poor communities are the ones most affected because they do not have the economic strength to offset these price increases. Thus, inflation can be seen as a structural factor that deepens poverty, weakens welfare, and widens social disparities between income groups. This finding is supported by research from Hardi and Pratama which found that inflation had a significant effect on poverty in Jambi City, where rising inflation caused an increase in the number of poor people. (Septia Pratama, 2024). Similar results were also demonstrated by Ningsih and Andiny, who stated that inflation has a positive effect on poverty levels in Indonesia. Both studies reinforce empirical evidence that inflation is a significant factor driving poverty increases, both at the national and regional levels. (Ningsih & Andiny, 2018).

Based on the results of the short-term VECM estimation test, it is known that the inflation variable at lag 1 has a calculated t-value of 0.66935, which is smaller than the t-table value of 2.093024. This indicates that in the short term, inflation does not have a significant effect on the level of extreme

poverty in Indonesia. This finding indicates that short-term inflation fluctuations are not strong enough to influence conditions of extreme poverty. This condition is possible because people are still able to adapt to the increase in prices of basic necessities for a limited time. In addition, government intervention through policies such as subsidies and social assistance also plays a role in reducing the impact of inflation on society. However, if inflationary pressure persists and goes uncontrolled, the impact could potentially be significant in the long term and could worsen public welfare. This finding aligns with research by Puteri et al., which shows that inflation does not always negatively impact poverty, especially if it occurs at moderate levels and is offset by increased economic activity. (Puteri, et al, 2024).

The Impact of Open Unemployment Rate on Extreme Poverty in Indonesia

Based on the results of the VECM model estimation test, it is known that the open unemployment rate variable has a significant influence on extreme poverty in Indonesia, both in the long term and the short term. In the long term, the calculated t-value of 6.41578 is greater than the t-table of 2.093024, while in the short term the calculated t-value of 2.59597 also exceeds the same t-table value . These results indicate that the increase in the open unemployment rate consistently has an impact on the increase in the level of extreme poverty, both in the short term and continuously. In other words , the more people who do not have jobs or a steady income, the greater the possibility of them falling into conditions of extreme poverty.

This finding is in line with the Structuralist Poverty Theory put forward by Raul Prebisch, which explains that extreme poverty is not only caused by individual weaknesses, but also by unequal social and economic structures. The high unemployment rate reflects an imbalance in the structure of the labor market, where available job opportunities are not commensurate with the number of workers who need work. As a result, some people are unable to earn sufficient income to meet basic needs. In this context, open unemployment is one of the structural factors that exacerbates extreme poverty in Indonesia. This demonstrates that poverty alleviation efforts cannot be achieved solely through social assistance, but also need to be directed at creating inclusive and equitable employment opportunities. This finding aligns with research by Supriyaningsih & Cahya, which states that the open unemployment rate is strongly linked to poverty, where an increase in the open unemployment rate will increase the number of poor people. (Cahya, et al, 2025). However, this study's results extend previous findings by using a VECM model and a longer data period (2000–2024), thus capturing the dynamics of long-term and short-term relationships more comprehensively.

The Impact of Health on Extreme Poverty in Indonesia

Based on the results of the long-term VECM model estimation test, the health variable at lag 1 has a t-count value of 8.21944, which is greater than the t-table of 2.093024. This shows that health has a significant impact on extreme poverty in Indonesia in the long term. These findings indicate that changes in public health conditions can have a direct impact on extreme poverty levels. In

other words, every 1% increase in inflation in a given period has the potential to increase extreme poverty levels by 8% in the current period. This is likely because improvements in health often require high costs for treatment, care, or healthcare facilities, forcing some poor people to allocate their income to healthcare, which can ultimately exacerbate extreme poverty. Furthermore, even if health improves, if other economic aspects such as income and access to employment do not improve, the positive impact on community well-being may be limited.

This finding aligns with the Structuralist Poverty Theory developed by Raul Prebisch, which asserts that poverty is not solely the result of individual failure, but rather is caused by unequal socioeconomic structures, including limited access to public services such as healthcare. In this context, communities with limited access to healthcare tend to have low productivity and high economic burdens due to medical costs, ultimately reinforcing the cycle of extreme poverty. Thus, improving the health system and equalizing access are forms of structural intervention that can reduce poverty in the long term. This result is also in line with the findings of Jani and Juliana who emphasized the importance of access to health and education in reducing poverty from an Islamic economic perspective, also supporting the direction of this relationship. They stated that limited health services are the main cause of structural poverty in rural areas, in accordance with the findings of the VECM model in this study. (Jani & Juliana, 2024).

Furthermore , in the short term, the health variable at lag 1 has a t-value of 0.02628, which is smaller than the t-table of 2.093024. This finding indicates that health does not significantly influence extreme poverty in the short term. This indicates that short-term changes in health conditions are not yet strong enough to impact extreme poverty levels. This is likely because communities can still manage minor health issues without allocating significant financial resources, and government interventions, such as free health services or drug subsidies, help mitigate the short-term impact of health on poverty. However, if health issues persist or worsen, their impact on extreme poverty could potentially be significant in the long term. These results are in line with Karina's research, which also emphasizes that increasing social investment, including in the health sector, can be an effective means of strengthening human development and reducing multidimensional poverty levels. (Karina, 2024).

Inflation, Open Unemployment Rate and Health on Extreme Poverty in the Perspective of Islamic Economics

The results of the study show that inflation, open unemployment rate, and health have a significant influence on extreme poverty in Indonesia in the long term. Rising inflation causes the prices of basic necessities to rise, thereby decreasing people's purchasing power, especially low-income groups, and worsening their economic conditions. Rising inflation also widens social disparities because poor groups are unable to adjust their incomes to rising prices of goods and services.

Meanwhile, the high open unemployment rate has a direct impact on

the increasing number of extremely poor people, as more and more people lose their source of steady income. This condition shows that limited employment opportunities are one of the main factors exacerbating poverty in Indonesia, both in the short and long term.

On the other hand, health also significantly impacts extreme poverty in the long term. High healthcare costs and limited access to healthcare services force some poor people to allocate a large portion of their income to medical needs, ultimately worsening their economic situation. While improving health outcomes is a positive outcome, without adequate economic support, the impact is not strong enough to directly reduce extreme poverty. From an Islamic economic perspective, this condition is closely related to the principle of justice in the distribution of wealth as explained in QS. Al-Hasyr verse 7.

This verse emphasizes that wealth should not only circulate among the rich, but should flow fairly to weak social groups such as orphans, the poor, and those in need, in order to create economic and social balance. In the context of research results, the condition of economic inequality caused by high inflation, increasing unemployment, and limited access to health services indicates that the application of the principle of distributive justice in the economy is not yet optimal. High inflation erodes the purchasing power of the poor, unemployment blocks income-earning opportunities, and limited health services add to the economic burden on vulnerable groups, deepening social inequality. Therefore, efforts to control inflation through price stability policies, inclusive job creation, and equitable access to healthcare are concrete manifestations of the application of social justice values in Islamic economics. The Islamic economic system emphasizes the importance of equitable wealth distribution through instruments such as zakat, infaq, sedekah, and waqf, so that wealth does not accumulate in the hands of a few wealthy individuals, but rather benefits all levels of society and achieves equitable prosperity in accordance with the goals of sharia.

CONCLUSION

Based on the analysis using the Vector Error Correction Model (VECM) for the period 2000–2024, it was found that inflation, the open unemployment rate, and health significantly influence extreme poverty in Indonesia in the long term. These findings indicate that economic factors and the community's environmental conditions play a significant role in determining the level of extreme poverty. Meanwhile, in the short term, only the open unemployment rate variable has been shown to have a significant effect on extreme poverty, while inflation and health have not had a significant effect. This indicates that in the long term, changes in inflation rates, employment opportunities, and access to health can affect people's welfare in a sustainable manner, while in the short term, increasing unemployment is the main factor that worsens conditions of extreme poverty. From an Islamic economic perspective, the results of this study emphasize the importance of applying the principles of justice and balance in economic management. Efforts to suppress inflation, create inclusive

employment, and increase access to healthcare are part of implementing Islamic values of social justice. By implementing economic policies based on Sharia principles, it is hoped that extreme poverty in Indonesia can be reduced, social inequality can be reduced, and public welfare can be achieved in a more equitable and sustainable manner.

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