

Determinants of Poverty In Java Island 2014-2024 From The Socio-Economic Perspective of Ibn Khaldun

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Abstack: Poverty remains a crucial issue in Indonesia. Java Island, which contributes a large portion of the national GDP, still faces uneven development. Ibn Khaldun's circle of equity model is employed to analyze the determinants of poverty, where the poverty rate represents the role of justice (j), influenced by democracy as a proxy for sharia (S), government expenditure as the role of government (G), economic growth as wealth (W), the open unemployment rate as the role of society or human resources (N), and the Human Development Index as development (g). This study employs a quantitative approach, utilizing the Fixed Effects Model (FEM). The data are obtained from Statistics Indonesia (BPS) and the Directorate General of Fiscal Balance, Ministry of Finance. The results show that the democracy index has no significant effect, government expenditure has a significant negative effect, economic growth has a significant positive effect, unemployment has no significant effect, and the Human Development Index has a significant negative effect on poverty. Simultaneously, the independent variables significantly explain variations in poverty. The integration of Ibn Khaldun's circle of equity model into this empirical analysis offers a distinct approach to examining poverty issues.

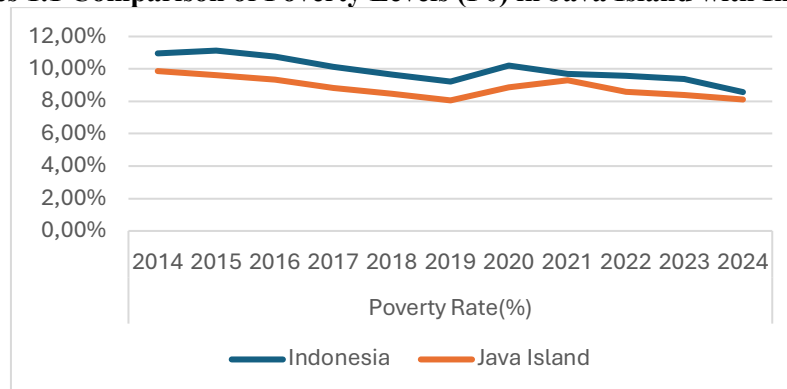
Keywords: Poverty, Ibn Khaldun, Circle of Equity

Introduction

Poverty is one of the most common problems faced throughout the history of human economic civilization. Generally, poverty is defined as a condition where an individual or group of people is unable to meet basic needs such as food, clothing, shelter, education, and health, often measured using the absolute or relative poverty line (World Bank, 2020). Indonesia, one of the world's developing countries, still faces poverty issues. The Central Statistics Agency (BPS) recorded that in March 2024, the number of poor people reached 25.22 million people, or approximately 9.03% of the total population, an increase compared to the previous year due to the impact of the COVID-19 pandemic and global inflation.

Java, Indonesia's largest economic and population center, is the most representative region for analyzing this phenomenon. With a population of over 150 million, or approximately 56% of Indonesia's total population, the island contributes approximately 58% of the national GDP. However, poverty remains high and varies across provinces.

Images 1.1 Comparison of Poverty Levels (P0) in Java Island with Indonesia



Source: BPS (2024)

In the graph above, the average poverty rate on Java Island is nearly identical to the poverty rate in Indonesia. Fluctuations in this data indicate uneven development, in which economic growth is not

always accompanied by significant reductions in poverty. Other factors, both economic and non-economic, are also important to consider (Hasan, 2021).

In one of Ibnu Khaldun's works, Muqaddimah, He developed a model of socio-economic dynamics that explains the cycle of rise and fall of civilization (umran) through the interaction between moral, economic, social, and political factors (Khaldun, 2011). Ibn Khaldun offered several socioeconomic models, including Sharia (S), Government (G), Wealth (W), Society (N), Development (g), and Justice (j). These models can be used to analyze economic development in a country, especially in developing countries like Indonesia.

This study explains the application of Ibn Khaldun's socio-economic dynamics model into the form of empirical variables such as the democracy index as the application of morals (S), government expenditure (G) as a representation of the government, unemployment (N) as society, economic growth (W) as wealth, the Human Development Index (g) as development or a measure of human quality, and poverty (j) as a representation of social justice. Therefore, the researcher is interested in discussing the study entitled "Determinants Of Poverty In Java Island 2014-2024 From The Socio-Economic Perspective Of Ibn Khaldun."

Literature Review

Ibn Khaldun's Socio-Economic Thought Model

Ibn Khaldun was a Muslim scientist known as a pioneer in various branches of science, one of which was economics (Hayati et al., 2025). Ibn Khaldun's thoughts on Islamic economics in creating justice and prosperity are not limited to one aspect but encompass various elements within society. The concept of ashabiyyah (social solidarity) enables people to cooperate with each other to achieve common goals, ultimately strengthening social harmony and acting as a driving force in the advancement of a civilization. Ashabiyyah can grow and become stronger when justice is upheld to ensure the well-being of all individuals through the fulfillment of their respective responsibilities and the equitable enjoyment of the fruits of development (Arfaq et al., 2020).

The characteristics of Ibn Khaldun's development model are explained in the interdisciplinary model within the hikamiyyah sentences found in one of his works, "Muqaddimah." This concept also encompasses a strategic step in formulating and directing an effective socio-economic policy. The content of that sentence according to Khaldun (2011) is:

"The strength of a kingdom or sovereignty (الملك) will not be realized except with the presence of Sharia; Sharia (الشريعة) cannot be implemented except with the presence of a kingdom or sovereignty (الملك); A kingdom or sovereignty (الملك) will not gain strength except from society or people (الرجال); Society (الرجال) cannot be maintained except with wealth (الأموال); Wealth (الأموال) cannot be obtained except with development (عمارة); Development (عمارة) cannot be achieved except with justice; Allah made justice (العدل) the measure (al-mizan) to evaluate humanity; Sovereignty or a kingdom (الملك) has the responsibility to uphold justice (العدل)" (Khaldun, 2011).

The Circle of Equity Concept

One of Ibn Khaldun's multidimensional socioeconomic concepts is the circle of equity theory, also known as the circle of justice. This theory explains the interconnected interactions that are closely linked to the progress or decline of a civilization Chapra (2008) summarizes the theory of the circle of equity as follows:

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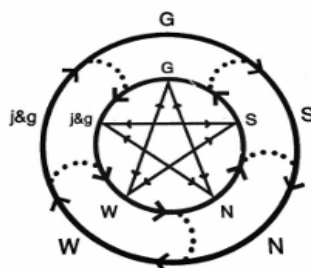
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Images 1.2 The Circle of Equity Concept



Soucre : Chapra (2008), page 840

Where:

G = Gouvernment
S = Syariah
N = Nation
W = Wealth
g = Development
j = Justice

This concept is a summary of the eight wise principles proposed by Ibn Khaldun. These concepts are closely interrelated. One unique feature of this concept is that there is no assumption of fixed variables (*ceteris paribus*). When one variable acts as a trigger, the other variables may or may not be triggered at all in the same direction (Arfaq et al., 2020). Failure in one variable will not directly impact regression because it can still be corrected. If the problematic variable is corrected, the direction of change can lead to progress. On the other hand, if damage to one variable cannot be repaired or is not immediately corrected, the cycle of equity concept will rotate counterclockwise, leading to regression. (Fitriani, 2019).

Method

This study uses a quantitative method with the variables used being an application of Ibn Khaldun's socioeconomic variables. These variables include the poverty rate or Head Count Index (P_0 / j), the democracy index (IDI / S), government expenditure ($APBD / G$), economic growth ($GRDP ADHK / W$), unemployment (TPT / N), and human development (HDI / g). The data in this study are secondary data taken from official websites such as the Central Statistics Agency (BPS) and the Directorate General of Fiscal Balance (DJPK) of the Ministry of Finance.

The population and sample in this study comprise all provinces on the island of Java, including Banten, DKI Jakarta, West Java, Central Java, Yogyakarta, and East Java. The time period used is from 2014 to 2024. This data is classified as panel data because it combines cross-sectional and time series units. The analysis technique used is multiple linear regression of panel data with EViews 12 software. The panel data regression analysis model in this study is as follows:

$$Pov_{it} = \beta_0 + \beta_1 IDI_{it} + \beta_2 APBD_{it} + \beta_3 PDRB_{it} + \beta_4 TPT_{it} + \beta_5 IPM_{it} + \varepsilon_{it}$$

Description:

Pov : Poverty rate / Head Count Index (P_0)
 β_0 : Constant
 $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$: Independent variable coefficient
 IDI : Indonesian Democracy Index
 APBD : Government Expenditure
 PDRB : Economic Growth
 TPT : Open Unemployment Rate
 IPM : Human Development Index
 I : Number of cross-section data
 T : Time period

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Analysis and Discussion

Research Model Selection

a. Chow test results

Table 1.1 of Results Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	65.972317	(5,55)	0.0000
Cross-section Chi-square	128.406337	5	0.0000

Source: Eviews 12

The Chow test is used to determine and select which model is better, namely the Common Effect Model (CEM) or the Fixed Effect Model (FEM). In Table 1, the cross-section probability value F is $0.000 < \alpha$ (5%). This concludes that the Fixed Effect Model (FEM) is more appropriate to use compared to the CEM

b. Hausman test results

Table 1.2 Results of Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	329.861586	5	0.0000

Source: Eviews 12

The Hausman test is used to select the better model between the Random Effect Model (REM) and the Fixed Effect Model (FEM). In Table 2, the value of the random cross-section probability is $0.0000 < \alpha$ (5%), which means the better model is the Fixed Effect Model (FEM). Because both initial tests of the estimation point to the Fixed Effect Model (FEM), the Lagrange multiplier test is not necessary.

Fixed Effect Model (FEM) Estimation

Table 1.3 Results of FEM Estimation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
IDI	-3.95E-05	0.000193	-0.205139	0.8382
APBD	-5.37E-05	1.44E-05	-3.721085	0.0005
PDRB	4.69E-06	1.15E-06	4.087323	0.0001
TPT	0.044300	0.081477	0.543710	0.5888
IPM	-0.003682	0.001110	-3.317886	0.0016
C	35.31128	7.048193	5.009976	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
Root MSE	0.540329	R-squared		0.971866
Mean dependent var	8.855152	Adjusted R-squared		0.966750
S.D. dependent var	3.246060	S.E. of regression		0.591901
Akaike info criterion	1.940058	Sum squared resid		19.26909
Schwarz criterion	2.305000	Log likelihood		-53.02191
Hannan-Quinn criter.	2.084264	F-statistic		189.9915
Durbin-Watson stat	0.855550	Prob(F-statistic)		0.000000

Source: Eviews 12

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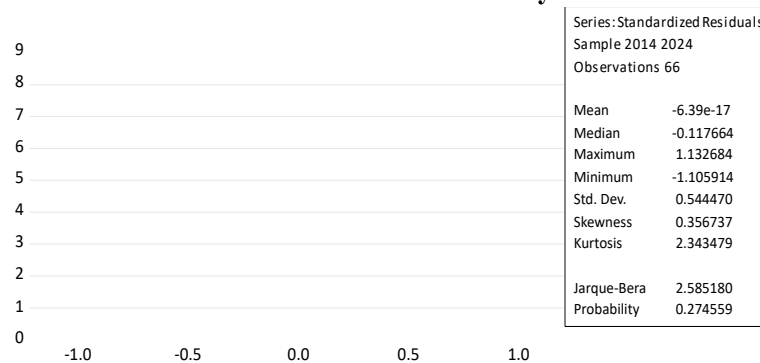
Based on the best estimate, the Fixed Effect Model (FEM), three independent variables have a significant influence (with a probability value $< \alpha$ 0.05): government spending, economic growth, and human development. The unemployment and democracy index variables do not have a significant influence. The regression model equation in this study is as follows:

$$Pov_{it} = 35.31128 - 0,0000395 IDI_{it} - 0,0000537 APBD_{it} + 0,00000469 PDRB_{it} + 0,0443 TPT_{it} - 0,003682 IPM_{it} + \varepsilon_{it}$$

Classical Assumption Test

a. Normality Test

Table 1.4 Results of Normality Test



Source: Eviews 12

Based on the results of the normality test above, the Jarque-Bera value is 2.585180 with a probability of 0.274559. This probability value is greater than the 0.05 significance level, which means the data in this study is normally distributed.

b. Multicollinearity Test

Table 1.4 Results of Multicollinearity Test

	IDI	APBD	PDRB	TPT	IPM
IDI	1.000000	-0.238250	0.066891	-0.240220	0.728650
APBD	-0.238250	1.000000	0.729128	0.057930	-0.520210
PDRB	0.066891	0.729128	1.000000	0.220449	-0.018782
TPT	-0.240220	0.057930	0.220449	1.000000	-0.183922
IPM	0.728650	-0.520210	-0.018782	-0.183922	1.000000

Source: Eviews 12

From the results of the multicollinearity test above, the absolute VIF value for each variable is below 0.9. This indicates that there is no multicollinearity problem in the research data, or that each independent variable does not have a very strong correlation with each other.

Hypothesis Test

a. T-test

With a sample size of n (observations) of 66 and k (variables) of 5, the value of $df = n - k$ can be obtained, which is 61. With a df value of 61 and an α value of 0.05, the t-table value is 1.670. The t-test results for each variable are as follows:

Table 7

t-test comparison

t-test (partial)	
t-table (1.670)	t-count
IDI	0,205.139
APBD	3,721.085

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PDRB	4,087.323
TPT	0,543.710
IPM	3,317.886

Source : Data by researchers

Based on Table 7 above, there are three variables that passed the t-test. These variables have absolute t-values greater than the t-table. Therefore, it can be concluded that government spending, economic growth, and human development passed the t-test (partial).

b. *F-test statistic*

Based on the estimation results in Table 3, the F-statistic is 189.9915 with a probability of 0.000000. This probability value is far below the 5% significance level. Therefore, it can be concluded that the independent variables in the study collectively have a significant effect on the poverty rate in Java from 2014 to 2024.

c. *R-squared test*

The R-squared value in Table 3 is quite high, at 0.971866. This value means that 97% of the variation in the independent variable explains the dependent variable (poverty level) in the regression model. The remaining 3% is explained by variables outside the research model.

Discussion

The Effect of the Democracy Index on Poverty in Java

Based on statistical testing, the democracy index variable has an F-statistic probability value of $0.8382 > 0.05$. This indicates that the democracy index has no effect on poverty levels in Java from 2014 to 2024.

According to Nasikun (2001), factors such as corruption or the ineffectiveness of democratic institutions can hinder this variable from reducing poverty levels in Java. This issue clearly contradicts the principles of sharia (S) and justice (j), preventing democracy from playing its full role in a region (Latifah, 2025).

The Effect of Government Expenditure on Poverty in Java

Government expenditure (APBD), which represents the government's role (G) in the study, has a negative coefficient of -0.0000537. Furthermore, its F-statistical probability value is smaller than α , at $0.0005 < 0.05$. From these results, it can be concluded that government expenditure has a significant influence on reducing poverty levels in Java from 2014 to 2024.

The government's role in this regard is reflected in expenditures for infrastructure, education, and health (Chapra, 2008). If government expenditure is implemented effectively and on target, it is possible that it can have a positive impact on development and improve welfare through poverty reduction.

The Effect of Economic Growth on Poverty in Java

The results of statistical tests in this study indicate that economic growth, calculated from the ADHK GRDP, has a coefficient of 0.00000469. The F-statistic is $0.0001 < 0.05$, indicating that economic growth has a significant effect on poverty levels. However, this correlation is directional, exacerbating poverty.

In research conducted by Hasan (2021), He explained that economic growth can reduce poverty levels if development is equitable and human resource quality is improved. Economic growth will only exacerbate poverty levels if it focuses only on a small group (Agussalim et al., 2024). This unequal distribution of wealth leads to inequality, thus failing to reduce poverty levels and, in fact, exacerbating the problem.

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The Effect of Unemployment on Poverty in Java

From the estimation results, the unemployment variable in this study has a positive coefficient of 0.0443, with an F-statistic of $0.5888 > 0.05$. These results indicate that the open unemployment rate does not significantly influence the poverty rate.

In his paper, Arfaq (2020) explains that government intervention (G) in poverty alleviation is more influential than the role of the community itself. The provision of various programs such as social assistance, subsidies, or training has a direct impact on poverty. Poor people who are employed but still have very low incomes may be one reason this variable does not significantly influence the poverty rate in Java from 2014 to 2024.

The Influence of Human Development on Poverty in Java

The Human Development Index (HDI), as an application of the role of development (g), in this study has a negative coefficient of -0.003682%. Its F-statistic probability is $0.016 < 0.05$, indicating that this variable has a negative and significant influence on the poverty rate in Java from 2014 to 2024. The correlation between this index and the poverty rate implies that the higher the HDI, the lower the poverty rate in Java.

Human development encompasses three aspects: health, education, and economic quality. A high HDI strengthens communities (N) and encourages a more equitable distribution of wealth (W) (Chapra, 2008). Izzuddin (2018) explains that development is not solely measured in terms of GDP or GRDP but also the role of human resources in that GDP/GRDP. Improving the quality of human development can theoretically reduce poverty. This could be because when the index is higher, life expectancy becomes longer, which will increase productivity, one of which is to increase income.

Conclusion

Based on the results of the panel data regression test using the Fixed Effect Model discussed above, several conclusions can be drawn, including:

The democracy variable, which implements the role of sharia (S) in this study, does not have a significant impact on poverty levels in Java from 2014 to 2024. Factors such as corruption and ineffective democratic institutions can hinder poverty reduction in Java. The government expenditure variable, calculated from the Regional Budget (APBD) which implements the role of government (G) in this study, has a negative and significant impact on poverty levels in Java from 2014 to 2024. This result indicates that higher government spending can reduce poverty levels

The economic growth variable, which implements the role of wealth (W), in this study, has a positive and significant impact. This positive correlation could occur, in part, due to the unequal distribution of wealth on Java, which leads to inequality and injustice, given the varying economic conditions in each region. The open unemployment rate variable, as an application of the role of society (N) in this study, has an insignificant effect on the poverty rate on the island of Java in 2014-2024. The human development index variable, as an application of the role of development (g) in this study, has a negative and significant effect on the poverty rate on the island of Java in 2014-2024. This means that the higher the quality of human resources, the lower the poverty rate on the island of Java in 2014-2024.

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