

The Influence of Islamic Banking Development on Financial Sector Economic Growth and Its Impact on the Human Development Index (HDI) and Poverty

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Abstract: *The purpose of this study is to examine the impact of overall financing, total assets, earnings, total capital, inflation, and the Islamic Banking Service Index (SBSI) on Indonesia's economic expansion, as well as how poverty and the Human Development Index (HDI) are affected by economic expansion. Panel data regression analysis is the methodology employed in this study. The Central Statistics Agency and the Financial Services Authority provided the panel data, which covers 13 Islamic banks in Indonesia from 2014 to 2023. The results show that earnings, total capital, inflation, and SBSI have significant effects on economic growth, whereas total financing and total assets do not significantly influence economic growth. Economic growth, in turn, affects poverty levels and the HDI.*

Keywords: *total financing, total assets, earnings, total capital, inflation, SBSI, economic growth, poverty, HDI*

INTRODUCTION

The banking industry has long contributed to economic growth, both internationally and particularly in Indonesia. Financial institutions like banks play a significant part in the development of a nation's economy. Banks act as a bridge between those who save more and those who save less. The function of conventional and Islamic banks is the same: to collect and disburse money to the general public. Banks may collect money in the form of deposits, demand deposits, and savings accounts (Junaidi, J., 2024).

The current business development requires banks to be agile in providing fast and accurate services. In this regard, the development of Islamic banking is guided by strategic initiatives outlined in the Islamic Banking Development Blueprint in Indonesia. During its preparation, various aspects were comprehensively considered, including the current conditions of the national Islamic banking industry and related devices, emerging trends in the national Islamic financial system, and the broader financial system framework. The implementation focuses on four development areas: compliance with Sharia principles, prudential regulations, operational efficiency and competitiveness, and system stability and benefits for the economy (Wardani, I. I., & Al Arif, M. N. R., 2021).

On February 1, 2020, President Jokowi formally inaugurated PT Bank Syariah Indonesia Tbk (BSI) in the State Palace in response to the expansion of Islamic banking globally, including in Indonesia. Three state-owned Islamic banks—PT Bank BRI Syariah, PT

Bank Syariah Mandiri, and PT Bank BNI Syariah—merged to form BSI, a state-owned enterprise subsidiary. BSI is a government-owned Islamic bank and is classified as the largest Islamic bank in Asia. As of December 2023, BSI had 19.65 million customers with an annual growth of 10.53%. BSI operates 1,365 branches across Indonesia and is the largest and most profitable bank in Indonesia with a Return on Equity (ROE) of 18%. BSI's mission is to provide access to financial solutions serving more than 20 million customers based on assets of 500 trillion IDR.

A country's economic growth indicates the society's ability to earn additional income over a certain period by increasing work productivity and additional capital. Supporting economic growth requires financial institutions capable of facilitating public needs for financial assets. The abundance of financial assets makes capital investment easier, which in turn fosters good economic growth. In an economic system, financial institutions serve the intermediation function. Increasing banking assets encourages technological innovation and economic growth by channeling capital to productive sectors, thus boosting economic growth. Therefore, banking assets have a positive influence on economic growth (Rendy Okryadi: 17).

The achievements mentioned above are interesting to study further to see whether the growth of Islamic banking in Indonesia can effectively perform its function in the economy, especially in promoting economic growth. This is important considering Indonesia's economic growth experiences fluctuations and instability. It is necessary to empirically study how Islamic banking plays a role through product development in stimulating economic growth in Indonesia. Several issues remain debated regarding the effect of the emergence of Islamic banking on economic expansion. There is significant disagreement in Indonesia regarding the role that Islamic finance plays in propelling economic expansion. The loop causation between Islamic banking's development performance and its effect on economic growth must thus be reexamined, which is currently fragmented.

Financial development leads to economic growth. This study attempts to fill the gap by analyzing the causal relationships between the development of Islamic banking, with factors such as financing, total assets, capital, profit and loss sharing, inflation, and Islamic Bank Indonesia Certificates (SBIS) as independent variables (X), and how they affect economic expansion. The dependent variable (Y) is the impact of economic growth in the financial sector on the human development index (HDI), welfare, and poverty, represented by GDP.

Consequently, the goal of this research is to investigate the noteworthy cointegration connections between economic growth and variables such as Islamic banking financing, capital, total assets, earnings, inflation, and SBIS. It will simultaneously measure the causality between Islamic banking development on financial sector growth and its impact on HDI and poverty, using data from 2014 to 2023.

LITERATURE REVIEW

Economic Growth

According to the Harrod-Domar model, capital formation or investment is necessary to achieve steady economic growth. The more capital available, the greater manufacturing of products and services. Therefore, in accordance with this principle, a nation's economy must increase steadily over the long run. According to Robert Solow, there are four primary variables that contribute to economic growth: output, contemporary technology, capital accumulation, and human resources (Agustina, M. et al., 2022).

Advantages of Islamic Banking as a Tool for Poverty Alleviation

The advantage of the current Islamic financial system is that it does not use interest (riba). The philosophy of the "interest-free" Islamic financial system not only considers the

interaction between production factors and economic behavior as in conventional finance but also balances ethical, moral, social, and religious dimensions to promote equitable distribution and justice toward a comprehensive prosperous society. Through profit-sharing cooperation, risks are shared. Financial risks are not borne solely by the capital recipient or entrepreneur but also shared by the capital provider.

Islamic Financing

Islamic financing contributes to improving financing access, especially for micro, small, and medium enterprises (MSMEs), which directly impacts increasing financial inclusion (Ascarya, 2012:10). Furthermore, Islamic financing is more closely tied to the real sector, thereby encouraging sustainable economic growth (Chapra, 2000:34). Islamic financing continues to contribute to economic growth through various channels: Encouraging Financial Inclusion: Studies show that countries with strong Islamic financial systems experience more stable economic growth. One mechanism is higher financial inclusion, especially through financing supporting SMEs and low-income households (Hassan et al., 2019).

Human Development Index

The United Nations Development Program (UNDP) developed another indicator for development called the Human Development Index (HDI). This index was created because development must consider the quality of human resources. According to UNDP, development should focus on human resource development. Improving human resource quality will open various options for freely determining life paths (Harahap, 2018).

Research Hypotheses

H1: There is a positive effect of total financing, total assets, capital, and earnings on economic growth across all Islamic banks in Indonesia.

H2: Inflation rates and SBSI (Sertifikat Bank Syariah Indonesia) have a major impact on Islamic banking's economic growth.

H3: Economic growth rates have a major impact on Indonesia's poverty and Human Development Index (HDI).

H4: Total financing, total assets, capital, and earnings in Islamic banking jointly influence Indonesia's economic growth.

H5: Inflation and SBSI in Islamic banking jointly affect the rate of economic growth.

RESEARCH METHODS

This study employs an associative research strategy and a quantitative technique. Associative analysis is the analytical technique employed. The population of this research includes all Islamic Commercial Banks (*Bank Umum Syariah*, BUS) registered with the Financial Services Authority (OJK), totaling 17 banks. Purposive sampling is the method employed, and it meets the following requirements: (a) The selected bank must be an Islamic Commercial Bank whose financial reports were published by OJK for the period 2016–2023, (b) The bank has been operational for more than 10 years, (c) The bank issues quarterly financial reports ending in December for each year during the research period (2016–2023), (d) The bank provides complete data related to the research variables for the period 2016–2023, (e) The bank presents its financial statements in Indonesian Rupiah. The research employs both descriptive and verification analysis. Panel data regression analysis (pooled data) is used for verification analysis. Processing of data is performed using Microsoft Excel and EVIEWS 10.

RESULTS AND DISCUSSION

Panel Data Model Selection

1. Chow Test

The Chow Test determines the superiority of the Fixed Effect Model (FEM) over the Common/Pool Effect Model (CEM). If the test result confirms the null hypothesis (H_0), the Common Effect Model is the best model. Fixed Effect Model is a better fit if the outcome rejects H_0 , and the Hausman Test will be used for additional testing.

Hypotheses:

H_0 : Common Effect Model (CEM) is appropriate

H_1 : Fixed Effect Model (FEM) is appropriate

Redundant Fixed Effects Tests				
Equation: Untitled				
Test cross-section fixed effects				
Effects Test	Statistic	d.f.	Prob.	
Cross-section F	1.759172	(11,102)	0.0711	
Cross-section Chi-square	20.845611	11	0.0350	
Cross-section fixed effects test equation:				
Dependent Variable: LN_Y				
Method: Panel Least Squares				
Date: 12/12/24 Time: 21:24				
Sample: 2014 2023				
Periods included: 10				
Cross-sections included: 12				
Total panel (balanced) observations: 120				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	23.73124	0.110258	215.2334	0.0000
LN_X1	0.003730	0.003569	1.045123	0.2982
LT__X2	-0.019435	0.009974	-1.948583	0.0538
LN_X3	0.032016	0.011066	2.893155	0.0046
LT__X4	-0.001133	0.000390	-2.904915	0.0044
LN_X5	-0.182349	0.012130	-15.03249	0.0000
LN_X6	-0.042110	0.002778	-15.16099	0.0000
R-squared	0.836472	Mean dependent var	23.06027	
Adjusted R-squared	0.827789	S.D. dependent var	0.110490	
S.E. of regression	0.045852	Akaike info criterion	-3.270251	
Sum squared resid	0.237568	Schwarz criterion	-3.107647	
Log likelihood	203.2150	Hannan-Quinn criter.	-3.204217	
F-statistic	96.33537	Durbin-Watson stat	1.499790	
Prob(F-statistic)	0.000000			

Source: Data Processing

Table 4.18

Effect Test	Statistik	d.f	Prob
Cross section Chi-Square	20,8456	11	0,0350

Source: Data Processing

The null hypothesis is rejected when both cross-section chi-square probability values are less than alpha 0.05, according to the Chow test mentioned above. Consequently, the Fixed Effect model is the best suitable model to employ in accordance with the Chow test. The data testing moves on to the Hausman test since the Chow test results refute the null hypothesis.

2. Hausman Test

Choosing between the Fixed Effect and Random Effect approaches is the aim of this test. If the results of the Hausman test indicate that the null hypothesis is accepted, then the Random Effect Model is the best model to use. However, if the findings show that the null hypothesis was rejected, the Fixed Effect Model is the best model to use. The hypotheses of the Hausman test are:

H_0 : Random Effect Model (REM)

H_1 : Fixed Effect Model (FEM)

Table 4.19

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	19.350887	6	0.0036

** WARNING: estimated cross-section random effects variance is zero.

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LN X1	-0.002304	0.003730	0.000004	0.0038
LT X2	0.000733	-0.019435	0.000394	0.3096
LN X3	0.058025	0.032016	0.000181	0.0533
LT X4	-0.003119	-0.001133	0.000000	0.0011
LN X5	-0.141035	-0.182349	0.000109	0.0001
LN X6	-0.034132	-0.042110	0.000006	0.0010

SOURCE: DATA PROCESSING

The cross-section chi-square probability value, as determined by the Hausman test above, is 0.0036, which is less than alpha 0.05. Thus, the null hypothesis is refuted. According to the Hausman test, the Fixed Effect model is the best model to use.

Coefficient of Determination

The model's capacity to explain the collection of The coefficient of determination can be used to measure dependent variables. The value of the coefficient of determination ranges from 0 to 1. When the coefficient of determination is low, the independent variables' capacity to explain the dependent variable's variation is diminished. The value is closer to one when the independent variables provide almost all of the data needed to predict the dependent variable.

1. Coefficient of Determination Panel Data Regression (Model 1)

Table 4.20

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.862548	Mean dependent var	23.06027
Adjusted R-squared	0.839640	S.D. dependent var	0.110490
S.E. of regression	0.044246	Akaike info criterion	-3.260631
Sum squared resid	0.199685	Schwarz criterion	-2.842507
Log likelihood	213.6379	Hannan-Quinn criter.	-3.090829
F-statistic	37.65172	Durbin-Watson stat	1.391876
Prob(F-statistic)	0.000000		

From the data processing results of Total Financing, Total Assets, Capitalization, Earning, Inflation, and SBIS on GDP in Indonesia from 2014–2023, an R^2 value of 0.8396 was obtained. This result statistically indicates that 83.96% of the variation in GDP may be accounted for by the variables in this study, but other factors outside the purview of the study account for the remaining 16.04%.

2. Coefficient of Determination – Regression (Model 2)

Table 4.21

Dependent Variable: Z1				
Method: Least Squares				
Date: 10/23/24 Time: 09:20				
Sample: 1 10				
Included observations: 10				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	35.59531	1.989336	17.89306	0.0000
Y	-8.38E-10	1.90E-10	-4.410850	0.0023
R-squared	0.708620	Mean dependent var	26.87200	
Adjusted R-squared	0.672198	S.D. dependent var	1.186955	
S.E. of regression	0.679579	Akaike info criterion	2.242171	
Sum squared resid	3.694623	Schwarz criterion	2.302688	
Log likelihood	-9.210853	Hannan-Quinn criter.	2.175784	
F-statistic	19.45559	Durbin-Watson stat	1.085766	
Prob(F-statistic)	0.002254			

Source: Data Processing

From the data processing results of the influence of GDP on Poverty in Indonesia from 2014–2023, The result was an Adjusted R^2 score of 0.672198. This finding statistically shows that, within the parameters of this study, GDP accounts for 67.22% of the variation in poverty levels, with other factors outside the study influencing the remaining 32.78%.

3. Coefficient of Determination – Regression (Model 3)

Table 4.21

Dependent Variable: Z2				
Method: Least Squares				
Date: 10/23/24 Time: 09:44				
Sample: 1 10				
Included observations: 10				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	58.45272	0.346295	168.7945	0.0000
Y	1.24E-09	3.31E-11	37.44541	0.0000
R-squared	0.994327	Mean dependent var	71.34400	
Adjusted R-squared	0.993618	S.D. dependent var	1.480782	
S.E. of regression	0.118298	Akaike info criterion	-1.254359	
Sum squared resid	0.111956	Schwarz criterion	-1.193841	
Log likelihood	8.271793	Hannan-Quinn criter.	-1.320746	
F-statistic	1402.158	Durbin-Watson stat	1.533634	
Prob(F-statistic)	0.000000			

Source: Data Processing

From the data processing results on the total Financing, Total Assets, Capital, Earnings, Inflation, and SBIS toward GDP in Indonesia from 2014–2023, The resultant Adjusted R2 value was 0.993618. According to statistics, the variables in this study account for 99.36% of the fluctuation in GDP, with other factors outside the purview of the study influencing the remaining 0.64%.

F-Test (Simultaneous Test)

To find out if the independent variables—total financing, total assets, capital, earnings, inflation, and SBIS—have a simultaneous or combined impact on the dependent variable, the F-test is utilized (Economic Growth).

Table 4.21

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.862548	Mean dependent var	23.06027
Adjusted R-squared	0.839640	S.D. dependent var	0.110490
S.E. of regression	0.044246	Akaike info criterion	-3.260631
Sum squared resid	0.199685	Schwarz criterion	-2.842507
Log likelihood	213.6379	Hannan-Quinn criter.	-3.090829
F-statistic	37.65172	Durbin-Watson stat	1.391876
Prob(F-statistic)	0.000000		

Source: Data Processing

The likelihood value of the F-Statistic, which is significant at the 5% level, is 0.000000, according to the data processing results. This suggests that the dependent variable is significantly impacted by total financing, total assets, capital, earnings, inflation, and SBIS taken collectively.

T-Test (Partial Test)

Quantifying the relative contributions of each independent variable to the variance of the dependent variable is the aim of the t-test. The t-test method is utilized in this analysis to evaluate partial significance: H_0 is rejected if the probability value is less than $\alpha = 5\%$, indicating that the independent variable strongly explains the dependent variable in the model. There is no significant explanation of the dependent variable by the independent variable, however, if the probability value is greater than $\alpha = 5\%$, and H_0 is accepted — in other words, there is no significant relationship between the two variables tested.

Table 4.22

Variable	t count	t table	Probability	Prob Standard
Total Financing	0,5723	1,658	0,5683	0,05
Total Asset	0,0332	1,658	0,9736	0,05
Capitalization	3,3770	1,658	0,0010	0,05
Earning	4,3541	1,658	0,0000	0,05
Inflation	8,9953	1,658	0,0000	0,05
SBSI	9,4531	1,658	0,0000	0,05

Source: Data Processing

Overall, the t-count from the independent variables is higher than the t-table, according to table 4.22. Four independent variables—Capitalization, Earning, Inflation, and SBSI—are partially significant because their respective t-counts are higher than the t-table ($3.377 > 1.658$ for Capitalization, $4.3541 > 1.658$ for Earning, $8.9953 > 1.658$ for Inflation, and higher than the t-table for SBSI), which is $9.4351 > 1.658$ as well as supported by the probability simultaneously 0.0000 less than the standard probability, which is $0.0000 < 0.05$ and partially

the four independent variables, namely: Capitalization, Earning, Inflation, and SBSI at 5% alpha with the standard probability below 0.05 against GDP. This means that Capitalization, Earning, Inflation, and SBSI have a positive effect on GDP. Whereas for the Total Financing variable with t-count smaller than t-table $0.5723 < 1.658$ and Total Assets variable t-count smaller than t-table $0.0332 < 1.658$ as well as the probability value above 0.05. This means the Total Financing and Total Assets variables have no effect on GDP.

Model Feasibility Test Results

1. Hypothesis Testing of Model 1

Through panel data regression showing the causal influence between independent variables and dependent variables as follows: Model 1 Equation

$$\hat{Y}_1 = \beta_0 + \beta_1 \text{Ln}X_1 + \beta_2 \text{Lt}X_2 + \beta_3 \text{Ln}X_3 + \beta_4 \text{Lt}X_4 + \beta_5 \text{Ln}X_5 + \beta_6 \text{Ln}X_6 + e$$

Explanation:

$$\hat{Y}_1 = \text{GDP}$$

β_0 = Constant

X_1 = Total Financing

X_2 = Total Assets

X_3 = Capitalization

X_4 = Earning

X_5 = Inflation

X_6 = SBSI

$\beta_1 \dots \beta_6$ = Regression Coefficients of each independent variable

e = Epsilon (Other factors outside model 1)

Table 4.23

Dependent Variable: LN Y				
Method: Panel Least Squares				
Date: 10/23/24 Time: 08:50				
Sample: 2014 2023				
Periods included: 10				
Cross-sections included: 12				
Total panel (balanced) observations: 120				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	22.93977	0.305515	75.08546	0.0000
LN X1	-0.002304	0.004026	-0.572358	0.5683
LT X2	0.000733	0.022058	0.033233	0.9736
LN X3	0.058025	0.017182	3.377088	0.0010
LT X4	-0.003119	0.000716	-4.354133	0.0000
LN X5	-0.141035	0.015679	-8.995392	0.0000
LN X6	-0.034132	0.003618	-9.435169	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.862548	Mean dependent var	23.06027	
Adjusted R-squared	0.839640	S.D. dependent var	0.110490	
S.E. of regression	0.044246	Akaike info criterion	-3.260631	
Sum squared resid	0.199685	Schwarz criterion	-2.842507	
Log likelihood	213.6379	Hannan-Quinn criter.	-3.090829	
F-statistic	37.65172	Durbin-Watson stat	1.391876	
Prob(F-statistic)	0.000000			

Source: Data Processing

The calculation results with the Evius program random effect model in the table above can be explained as the multiple linear regression results as transformed data with Fixed Effect. The linear regression equation is:

$$\hat{Y}_1 = 22.9397 - 0.0023X_1 + 0.0007X_2 + 0.0580X_3 - 0.0031X_4 - 0.1410X_5 - 0.0341X_6$$

X1 (Total Financing) : $0.5683 > 0.05$ (no effect)

X2 (Total Assets) : $0.9736 > 0.05$ (no effect)

X3 (Capitalization) : $0.0010 < 0.05$ (has effect)

X4 (Earning) : $0.0000 < 0.05$ (has effect)

X5 (Inflation) : $0.0000 < 0.05$ (has effect)

X6 (SBSI) : $0.0000 < 0.05$ (has effect)

Explanation of Hypothesis Testing Model 1:

a. Constant

The constant value in this panel data regression equation is 22.9397. This means when all variables, namely X1-X6 in this study, have a value of 0 or remain (unchanged), then the value of variable Y (Economic Growth) will increase by 22.9397 percent or one unit. In other words, this constant value is the value produced in variable Y when variable X is considered unchanged.

b. Variable X1 (Total Financing)

The panel data regression equation and the t-test results, which show a probability value of $0.5683 > 0.05$, indicate that variable X1 (total financing) has no bearing on variable Y (economic growth), the coefficient value of variable X1 is negative at -0.0023. This means even though the coefficient of X1 is negative, it still does not affect Y (Economic Growth).

c. Variable X2 (Total Assets)

From the t-test results The panel data regression equation indicates that variable X2 (Total Assets) has no effect on variable Y (Economic Growth), with a likelihood value of $0.9736 > 0.05$, the coefficient value of variable X2 is positive at 0.0007. This means

even though the coefficient of X2 is positive, it still does not affect Y (Economic Growth).

d. Variable X3 (Capitalization)

From the t-test results with a probability value of $0.0010 < 0.05$, it shows that variable X3 (Capitalization) affects Y (Economic Growth), and from the panel data regression equation, the coefficient value of variable X3 is positive at 0.0580. This means that when there is an increase of 1% in variable X3 (Capitalization), it will affect the increase of Y (Economic Growth) by 0.0580.

e. Variable X4 (Earning)

From the t-test results with a probability value of $0.0000 < 0.05$, it shows that variable X4 (Earning) affects Y (Economic Growth). From the panel data regression equation, the coefficient value of variable X4 is negative at -0.0031. This means when there is an increase of 1% in variable X4 (Earning), it will affect the decrease of Y (Economic Growth) by -0.0031.

f. Variable X5 (Inflation)

With a probability value of $0.0000 < 0.05$, the t-test results indicate that variable X5 (inflation) influences variable Y (economic growth). Using the regression equation for panel data, the coefficient value of variable X5 is negative at -0.1410. This means when there is an increase of 1% in variable X5 (Inflation), it will affect the decrease of Y (Economic Growth) by 0.1410.

g. Variable X6 (SBSI)

From the t-test results with a probability value of $0.0000 < 0.05$, it shows that variable X6 (SBSI) affects Y (Economic Growth). From the panel data regression equation, the coefficient value of variable X6 is negative at -0.0341. This means when there is an increase of 1% in variable X6 (SBSI), it will affect the decrease of Y (Economic Growth) by 0.0341.

2. Hypothesis Testing Model 2

Model 2 testing is the effect of GDP (Y) on Poverty (Z1) with Fixed Effect. The linear regression equation is:

Model II

$$Z1 = \beta_0 + \beta_7 Y + \epsilon_t$$

Explanation:

$\beta_0 \dots n$ = Constant Equation 1 to n

β_7 = Constant Y

$\epsilon_t \dots N$ = Standard Error equation 1 to n

Y = Gross Domestic Product

Z1 = Poverty

Table 4.24

Dependent Variable: Z1				
Method: Least Squares				
Date: 10/23/24 Time: 09:20				
Sample: 1 10				
Included observations: 10				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	35.59531	1.989336	17.89306	0.0000
Y	-8.38E-10	1.90E-10	-4.410850	0.0023
R-squared	0.708620	Mean dependent var	26.87200	
Adjusted R-squared	0.672198	S.D. dependent var	1.186955	
S.E. of regression	0.679579	Akaike info criterion	2.242171	
Sum squared resid	3.694623	Schwarz criterion	2.302688	
Log likelihood	-9.210853	Hannan-Quinn criter.	2.175784	
F-statistic	19.45559	Durbin-Watson stat	1.085766	
Prob(F-statistic)	0.002254			

$$Z1 = 35.5953 - 8.38E-10Y$$

The intercept (constant) value for variable Z1 is 35.5953. This means that if economic growth (Y) is zero, the estimated poverty level (Z1) is 35.5953. The coefficient for Economic Growth (Y) is -8.38E-10. This indicates that every increase of 1 unit in economic growth will cause a decrease in Poverty by 8.38E-10 (0.000000000838) units. The negative coefficient signifies a negative relationship between economic growth and poverty, which means that, in the observed data context, an increase in economic growth is accompanied by a decrease in poverty.

3. Hypothesis Testing Model 2

The test for Model 2 is the influence of GDP (Y) on Poverty (Z1) using Fixed Effect. The linear regression equation is:

Model III

$$Z2 = \beta_0 + \beta_8Y + \epsilon_t$$

Explanation:

$\beta_0 \dots n$ = Constant from Equation 1 to n
 β_8 = Coefficient of Y
 $\epsilon_t \dots N$ = Standard error from Equation 1 to n
Y = Gross Domestic Product
Z2 = Human Development Index

Table 4.25

Dependent Variable: Z2					
Method: Least Squares					
Date: 10/23/24 Time: 09:44					
Sample: 1 10					
Included observations: 10					
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
C	58.45272	0.346295	168.7945	0.0000	
Y	1.24E-09	3.31E-11	37.44541	0.0000	
R-squared	0.994327	Mean dependent var	71.34400		
Adjusted R-squared	0.993618	S.D. dependent var	1.480782		
S.E. of regression	0.118298	Akaike info criterion	-1.254359		
Sum squared resid	0.111956	Schwarz criterion	-1.193841		
Log likelihood	8.271793	Hannan-Quinn criter.	-1.320746		
F-statistic	1402.158	Durbin-Watson stat	1.533634		
Prob(F-statistic)	0.000000				

$$Z2 = 58.4527 + 1.24E-09Y$$

The intercept (constant) is **58.4527**. This means that if economic growth (Y) is zero, the estimated HDI (Human Development Index) value is **58.4527**. The coefficient of Economic Growth (Y) as an independent variable is **1.24E-09**. This indicates that every increase of 1 unit in The HDI will rise by 1.24E-09 (0.00000000124) units as a result of economic expansion. This positive coefficient suggests that economic growth and HDI have a positive association, which could mean that, given the data, economic expansion is accompanied by a rise in HDI.

The research model shows results that both align with and deviate from its expectations and the structural change theory that underpins its thinking.

a. Theoretical Plausibility

The research model can produce results that are consistent with expectations and the theory as its foundation. The feasibility test of the theoretical plausibility model can be presented in the following table:

Relationship between Variables	Pre-Estimation	Post-Estimation	Description
Effect of Total Financing (X1), Total Assets (X2), Capital (X3), Earnings (X4), Inflation (X5), SBIS (X6)	X1 Positive (+)	X1 Positive (+)	Not in line
	X2 Positive (+)	X2 Positive (+)	In line
	X3 Positive (+)	X3 Positive (+)	In line
	X4 Positive (+)	X4 Positive (−)	Not in line
	X5 Positive (+)	X5 Positive (−)	Not in line
	X6 Positive (+)	X6 Positive (−)	Not in line
Effect of GDP (Y) on Poverty (Z1)	Y Negative (−)	Y Negative (−)	In line
Effect of GDP (Y) on HDI (Z2)	Y Positive (+)	Y Positive (+)	In line

Source: Data Processing

Based on the table above, it can be explained that the theoretical plausibility test shows that in both the pre-estimation and post-estimation models, some variables align with expectations while others do not.

b. Accuracy of the Estimate of the Parameters

The research model produces an accurate feasibility test for future estimation purposes if each variable has a p-value $\leq \alpha$ 0.05.

Model 1: The influence of Total Financing (X1), Total Assets (X2), Capital (X3), Earnings (X4), Inflation (X5), and SBIS (X6) on Economic Growth (Y) in Indonesia.

The study yields accurate, unbiased, and significant estimators of the regression coefficients. However, not all analytical assumptions are fulfilled. The statistical error probabilities in Model 1 are as follows:

1. Total Financing p-value = $0.5683 > \alpha = 0.05$
2. Total Assets p-value = $0.9736 > \alpha = 0.05$
3. Capital p-value = $0.0010 < \alpha = 0.05$
4. Earnings p-value = $0.0000 < \alpha = 0.05$
5. Inflation p-value = $0.0000 < \alpha = 0.05$
6. SBIS p-value = $0.0000 < \alpha = 0.05$

Model 2: The influence of GDP on Poverty in Indonesia. The study results in a strong estimator of the regression coefficient, where GDP p-value = $0.0023 \leq \alpha = 0.05$.

Model 3: The influence of GDP on the Human Development Index (HDI) in Indonesia. The study results in a strong estimator of the regression coefficient, where GDP p-value = $0.0000 \leq \alpha = 0.05$.

c. Explanatory Ability

The explanatory ability test results show that the research model is highly capable of elucidating the connections between the studied variables. The Standard Error (SE) value reflects how far the estimated coefficient β may deviate from the actual value. The smaller the SE, the more stable the regression coefficient estimation, indicating that the variable is more relevant in explaining the dependent variable.

Table: Standard Error Comparison for Each Variable

Variable	Coefficient (B)	Std. Error (SE)	Value	Comparison	Conclusion
Total Financing - GDP	-0.00230	0.00403	-0.00115	SE > $\frac{1}{2}\beta$	Less Good
Total Assets - GDP	0.00073	0.02206	0.00037	SE > $\frac{1}{2}\beta$	Less Good
Capital - GDP	0.05803	0.01718	0.02901	SE < $\frac{1}{2}\beta$	Good
Earnings - GDP	-0.00312	0.00072	-0.00156	SE < $\frac{1}{2}\beta$	Good
Inflation - GDP	-0.14104	0.01568	-0.07052	SE < $\frac{1}{2}\beta$	Good
SBIS - GDP	-0.03413	0.00362	-0.01707	SE < $\frac{1}{2}\beta$	Good
GDP - Poverty	-8.38E-10	1.90E-10	4.19E-10	SE < $\frac{1}{2}\beta$	Good
GDP - HDI	1.24E-09	3.31E-11	6.2E-10	SE < $\frac{1}{2}\beta$	Good

Source: Data

Processing

Based on the table above, it can be explained that the *explanatory ability test* shows the standard error for partial effects. In Model 1, Capital, Earnings, Inflation, and SBIS have values smaller than $\frac{1}{2}\beta$, while Financing and Assets have values greater than $\frac{1}{2}\beta$. Likewise, the standard error for partial effects in Model 2 and Model 3 are found to be smaller than $\frac{1}{2}\beta$. This indicates that variables with $SE < \frac{1}{2}\beta$ demonstrate good explanatory ability, meaning the regression coefficient has a relatively strong influence compared to the estimation error.

d. Forecasting Ability

If a model has a high coefficient of determination, which indicates that it can predict the behavior of the dependent variable, it is deemed tested, as follows:

1. Model 1: The influence of total Financing, total Assets, Capital, Earnings, Inflation, and SBIS on GDP has an adjusted R-squared coefficient of determination of 83.96% $> \alpha = 50\%$.
2. Model 2: The influence of GDP on Poverty has a coefficient of determination (Adjusted R-squared) of 67.21% $> \alpha = 50\%$.
3. Model 3: The adjusted R-squared, or coefficient of determination, for the correlation between GDP and the HDI is 99.36% $> \alpha = 50\%$.

It is evident from the aforementioned three models that each has Adjusted R-squared values higher than 50%. This suggests that the models have a high predictive capacity for elucidating the variance in the dependent variables in relation to their independent variables.

DISCUSSION

The Effect of Capital on GDP

The research findings cited above indicate that Islamic banks' capital has a favorable and statistically significant effect on Indonesia's GDP at the 5% confidence level, with a probability of 0.0010, which is less than 0.005. Thus, capital has a positive and considerable impact on GDP, as evidenced by the rejection of H_0 and acceptance of H_a .

The capital variable's coefficient value is 0.058025, meaning that GDP will rise by 0.058025 units if capital rises by 1% while all other variables stay the same. The probability of 0.001 and the positive coefficient value verify that capital affects Indonesia's GDP.

The Effect of Earnings on GDP

According to the research findings, the earnings of Islamic banks have a statistically significant impact on Indonesia's GDP at the 5% confidence level, with a probability of 0.0000, which is less than 0.005. As a result, H_0 is denied while H_a is approved, suggesting that earnings significantly impact GDP.

The negative coefficient for the earnings variable is -0.003119, meaning that if earnings increase by 1% while other variables remain constant, GDP will decrease by 0.003119 units. The probability value of 0.000 confirms that earnings influence GDP in Indonesia.

The Effect of Inflation on GDP

The findings indicate that inflation has a statistically significant impact on Indonesia's GDP at the 5% confidence level, with a probability of 0.0000, which is less than 0.005. As a result, H_0 is disproved and H_a is approved, suggesting that inflation significantly affects GDP. Since the inflation variable has a negative coefficient of -0.141035, an increase in inflation by 1% while other variables remain constant, GDP will decrease by 0.141035 units. The probability value of 0.000 confirms that inflation influences GDP in Indonesia.

The Effect of SBIS on GDP

The results show that with a probability of 0.0000, which is less than 0.005, SBIS (Bank Indonesia Sharia Certificates) have a statistically significant effect at the 5% confidence level on GDP in Indonesia. As a result, H_0 is denied while H_a is approved, suggesting that SBIS significantly affects GDP.

The negative coefficient for the SBIS variable is -0.034132, meaning that if SBIS increases by 1% while other variables remain constant, GDP will decrease by 0.034132 units. The probability value of 0.000 confirms that SBIS influences GDP in Indonesia.

The Effect of GDP on Poverty

Dependent Variable: Z1
Method: Least Squares
Date: 10/23/24 Time: 09:20
Sample: 1 10
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	35.59531	1.989336	17.89306	0.0000
Y	-8.38E-10	1.90E-10	-4.410850	0.0023

The research results above show that with a probability of 0.0023, which is less than 0.005, GDP has a statistically significant impact on poverty in Indonesia at the 5% confidence level; so, H_0 is disproved and H_a is approved, suggesting that GDP significantly affects poverty.

The negative coefficient for the GDP variable is -8.38E-10, meaning that if GDP increases by 1%, while other variables remain constant, poverty will decrease by 8.38E-10

(or 0.000000000838 units). With a probability value of 0.0023, it is confirmed that GDP has an effect on poverty in Indonesia.

Dependent Variable: Z2				
Method: Least Squares				
Date: 10/23/24 Time: 09:44				
Sample: 1 10				
Included observations: 10				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	58.45272	0.346295	168.7945	0.0000
Y	1.24E-09	3.31E-11	37.44541	0.0000

The Effect of GDP on the Human Development Index (HDI)

According to the aforementioned research findings, GDP has a statistically significant impact on Indonesia's Human Development Index (HDI) at the 5% confidence level, with a probability of 0.0000, or less than 0.005. As a result, H_0 is denied and H_a is approved, suggesting that GDP significantly influences HDI.

The positive coefficient for the GDP variable is 1.24E-09, which means that if GDP increases by 1%, while other variables remain constant, HDI will increase by 1.24E-09 (or 0.00000000124 units). With a probability value of 0.0000, GDP is confirmed to have an effect on HDI in Indonesia.

CONCLUSION

The results of this study's data analysis allow for the following deductions to be made:

1. Indonesia's GDP is positively and significantly impacted by the capital of Islamic banks. This means that increased capital contributes to driving national economic growth.
2. Earnings (profits) of Islamic banks also have a significant effect on GDP, but the direction is negative. This indicates that an increase in earnings is followed by a decline in GDP, which may suggest suboptimal efficiency in how Islamic banks channel profits into the real economy.

3. Inflation has a negative and significant effect on GDP. This means that higher inflation tends to reduce economic growth, consistent with macroeconomic theory that high inflation can suppress purchasing power and investment.
4. SBIS (Bank Indonesia Sharia Certificates) also have a negative and significant effect on GDP. This may occur because increasing SBIS tends to absorb banking funds that should be allocated to productive sectors, thereby slowing economic growth.
5. GDP has a negative and significant effect on poverty levels in Indonesia. In other words, as GDP increases, poverty tends to decrease, showing that economic growth plays a role in poverty alleviation.
6. The Human Development Index (HDI) is positively and significantly impacted by GDP as well.

This indicates that as economic progress occurs, people's quality of life improves as well, as evidenced by a greater HDI.

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