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ISLAMIC FINANCIAL DEVELOPMENT AND HUMAN WELFARE: A QUANTITATIVE ANALYSIS OF INDONESIA'S DEVELOPMENT

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ABSTRACT

This study examines the relationship between Islamic financial literacy, financial inclusion, and the Human Development Index (HDI) in Indonesia from 2021 to 2023. Using quantitative analysis with multiple regression methods, the research analyzes secondary data from the Financial Services Authority (OJK) and the Central Statistics Agency (BPS). The findings reveal that Islamic financial institutions have a positive impact on human development, while Islamic financial investment shows a negative correlation. The study identifies several challenges, including limited access to Islamic financial services in remote areas, insufficient understanding of Shariah principles, and inadequate education about Islamic financial products. The research contributes to the growing literature on Islamic finance and development economics by providing empirical evidence of how Islamic financial services can influence human development outcomes. The findings suggest that policymakers should focus on expanding Islamic financial literacy programs and improving access to Shariah-compliant financial services to enhance human development in Indonesia.

Keywords: Islamic Financial Literacy, Financial Inclusion, Human Development Index, Shariah Finance, Development Economics.

1. INTRODUCTION

Human development in Indonesia has become a central agenda in national policies, reflecting the government's commitment to comprehensively improve society's quality of life. The Human Development Index (HDI) serves as a primary indicator measuring this progress, encompassing education, health, and per capita income aspects. In 2022, Indonesia's HDI reached 72.29, marking stable growth from previous years (Statistics Indonesia, 2022). This improvement reflects outcomes from various programs and policies focused on enhancing access to and quality of basic services (Statistics Indonesia, 2022). However, behind these figures lie numerous challenges requiring attention to ensure all societal segments benefit from this development (World Bank, 2018).

Financial literacy and inclusion emerge as crucial aspects requiring attention. Financial literacy refers to the public's ability to understand financial products and services and make appropriate financial decisions (OECD, 2020). Meanwhile, financial inclusion relates to public access to various financial products and services (Otoritas Jasa Keuangan, 2022). Both aspects are vital in supporting societal economic welfare and fostering inclusive economic growth (Ajustina & Nisa, 2024).In Indonesia, financial literacy and inclusion have become central focuses of government programs, particularly in expanding access to safe and affordable financial services across all segments of society (OECD, 2020).

However, in Indonesia's context as a Muslim-majority nation, Islamic financial literacy and inclusion have not received adequate attention. Islamic finance holds significant potential to support sustainable human development, particularly through its principles based on justice, balance, and transparency. According to the Islamic Financial Services Board (IFSB) report in 2021, Indonesia represents one of the world's largest Islamic finance markets, with Islamic financial assets reaching USD 102.7 billion by the end of 2020 (IFSB, 2021). This growth encompasses Islamic banking, Islamic insurance, and Islamic capital markets. Despite this substantial potential and development in the Islamic finance industry, Islamic financial literacy levels among Indonesian society remain notably low

The data from OJK in 2020 reveals that only 9.14% of Indonesia's adult population possesses basic understanding of Islamic financial products, significantly below the global average of 33% (Financial Services Authority, 2022). This low literacy level creates various significant implications for Islamic financial inclusion in Indonesia. Additionally, OJK notes that merely 12.12% of Indonesia's adult population has access to Islamic banking services, compared to 49% with access to conventional banking services (World Bank, 2018). These low Islamic financial inclusion figures indicate that most Indonesians have not optimally utilized Islamic financial products and services, potentially hampering this sector's contribution to Indonesia's human development.

Research by Sutaryono et al. (2020) identifies several primary barriers to enhancing Islamic financial inclusion in Indonesia, including limited public understanding of Shariah principles and restricted access to Islamic financial products and services, particularly in remote areas. This condition is exacerbated by inadequate education regarding Islamic financial products' benefits and operations. Consequently, despite high demand for Shariah-compliant financial products, many people remain hesitant to use them due to insufficient information and understanding.

Furthermore, existing literature remains limited in exploring relationships between Islamic financial literacy and inclusion with the Human Development Index (HDI). Previous research predominantly highlights general financial literacy and inclusion impacts on economic growth or financial stability, without specifically addressing how Islamic finance can contribute to improving society's quality of life (Nuraini et al., 2024). In Muslim-majority nations like Indonesia, comprehensive understanding of Islamic finance and broad access to Shariah-compliant financial products can play crucial roles in promoting more inclusive and sustainable human development (Ajustina & Nisa 2024).

This research aims to bridge existing literature gaps by conducting an in-depth analysis of the relationship between Islamic financial literacy, inclusion, and HDI in Indonesia. Through exploring this relationship, we expect to discover strong empirical evidence regarding how Islamic financial literacy and inclusion positively impact human development in Indonesia. Additionally, this research's results should meaningfully contribute to formulating more inclusive and Shariah-based public policies, ultimately supporting government efforts to enhance Indonesia's HDI.

With this comprehensive approach, this study not only enhances our understanding of Islamic finance's role in human development but also helps identify effective strategies to increase Islamic financial literacy and inclusion across all societal segments.

2. LITERATURE REVIEW

2.1. Financial Literacy in Islamic Finance

Research on financial literacy highlights its critical role in fostering informed decision-making and increasing financial participation. Financial literacy specifically related to Islamic finance focuses on individuals' understanding of Sharia-compliant financial principles such as the prohibition of riba (usury) and gharar (uncertainty). Hassana and Aliyub (2018) emphasize that enhanced Islamic financial literacy directly correlates with increased usage of Islamic financial products. However, Indonesia faces challenges in this area, with only 9.14% of its population demonstrating basic knowledge of Islamic finance products (OJK, 2022).

In comparison with conventional finance, Islamic financial literacy lags significantly, which poses a barrier to broader financial inclusion. Studies by Pratama and Nisa (2024) suggest that improving literacy not only enhances access to financial services but also protects consumers from unethical practices by ensuring they understand the principles behind financial products. However, despite these observations, more work is required to understand how literacy impacts specific developmental outcomes, such as human capital development.

2.2. Financial Inclusion in Islamic Finance

Financial inclusion in the context of Islamic finance refers to ensuring access to financial services that comply with Islamic principles. The Islamic financial system is particularly relevant in Indonesia, where over 85% of the population identifies as Muslim. Despite its significant potential, financial inclusion rates for Islamic finance remain low. Only 12.12% of the population accesses Islamic banking services, compared to 49% for conventional banking (OJK, 2022).

Studies by Sutaryono et al. (2020) reveal that barriers such as limited access to Islamic financial institutions in rural areas and a lack of diverse product offerings contribute to this low inclusion rate. Moreover, cultural factors, including varying interpretations of Sharia compliance across regions, further complicate efforts to standardize and expand services (Arta et al., 2024). While the Indonesian government has launched initiatives like the Komite Nasional Ekonomi dan Keuangan Syariah (KNEKS), more targeted policies are needed to bridge these gaps.

2.3. Intersection of Financial Literacy, Inclusion, and Human Development

The Human Development Index (HDI) captures a country's progress in health, education, and income, serving as a key indicator of human capital development. Financial literacy and inclusion are increasingly recognized as significant contributors to HDI, as they enable individuals to make better economic decisions, access resources, and improve their quality of life (Andaningsih et al., 2022).

Specifically, in Islamic finance, the role of literacy and inclusion in driving HDI remains underexplored. Islamic finance principles inherently emphasize social equity and sustainable development, making it uniquely positioned to impact HDI positively (KNEKS, 2024). For instance, initiatives such as microfinance based on Sharia principles, including qard al-hasan and mudarabah, have demonstrated success in improving income stability among marginalized communities (Arafah et al., 2023).

However, gaps remain in understanding how Islamic financial literacy influences HDI components such as education and healthcare access. Yusuf et al. (2022) argue that while financial inclusion has a general positive impact on HDI, the distinct mechanisms through which Islamic financial inclusion operates require further investigation.

2.4. Research Gaps and Future Directions

Existing literature establishes the foundational role of financial literacy and inclusion in economic development but often fails to explore their combined impact on human capital development, particularly within the framework of Islamic finance. Studies frequently focus on conventional finance, leaving a gap in understanding the unique contributions of Islamic financial principles (Nuraini et al., 2024).

Moreover, regional disparities in literacy and inclusion rates highlight the need for more localized studies. Many rural areas in Indonesia remain underserved by both conventional and Islamic financial systems, exacerbating inequalities. Future research should also investigate the role of technology, such as Islamic financial technology (FinTech), in addressing these disparities (Bank Indonesia, 2022).

3. METHODOLOGY

3.1. Research Design

This research adopts a quantitative approach, focusing on the relationship between Islamic financial literacy, financial inclusion, and the Human Development Index (HDI) in Indonesia. The study utilizes secondary data collected from reliable sources such as the Financial Services Authority (OJK) and the Central Statistics Agency (BPS) to analyze the impact of the independent variables (Islamic financial literacy and inclusion) on the dependent variable (HDI). The quantitative design is chosen for its ability to provide empirical evidence and measure causal relationships.

3.2. Sample

The sample consists of secondary data collected purposively from reliable sources:

a. Islamic financial literacy and inclusion data: Obtained from the OJK's National Survey on Financial Literacy and Inclusion (SNLIK).
b. Human Development Index (HDI) data: Extracted from the Central Statistics Agency (BPS) annual reports for the years 2021–2023.

The data covers all provinces in Indonesia, ensuring a comprehensive analysis of regional variations in financial literacy, inclusion, and HDI performance.

3.3. Data Collection

The study uses secondary data as its primary source:

1. Islamic Financial Literacy (X_1): Data reflects the percentage of the population with basic knowledge of Islamic financial products.
2. Islamic Financial Inclusion (X_2): Data represents the percentage of individuals accessing Islamic financial services.
3. Human Development Index (Y): Data measures the composite index of education, health, and income levels.

The collected data is organized into a panel dataset, facilitating longitudinal analysis of trends and relationships.

3.4. Data Analysis

The analysis employs multiple linear regression to evaluate the relationship between the independent variables (X_1, X_2) and the dependent variable (Y). The regression equation is expressed as:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where:

Y : Human Development Index (HDI)

α : Constant (intercept)

β_1: Coefficient of Islamic Financial Literacy (X_1)

β_2: Coefficient of Islamic Financial Inclusion (X_2)

ε : Error term

Steps of Analysis:

1. Descriptive Statistics: To summarize the data distribution for each variable.
2. Assumption Testing: Includes:
   a. Normality Test: Ensures residuals are normally distributed.
   b. Multicollinearity Test: Examines the variance inflation factor (VIF) to detect highly correlated independent variables:

$$VIF = \frac{1}{1 - R^2}$$

A VIF value below 10 indicates no multicollinearity issues.

c. Heteroscedasticity Test: Breusch-Pagan test is used to check if residuals have constant variance:

$$H_0 : \sigma^2 = constant\ vs\ H_1 : \sigma^2 \neq constant$$

d. Autocorrelation Test: Durbin-Watson (DW) test identifies the presence of autocorrelation in residuals:

$$DW = 2(1 - \widehat{\rho})$$

Where $\widehat{\rho}$ is the estimated autocorrelation coefficient.

e. Regression Analysis: To estimate the coefficients β_1 and β_2, indicating the strength and direction of the relationships between variables.

f. Goodness of Fit: Assessed using R^2, which measures the proportion of variation in Y explained by X_1 and X_2:

$$R^2 = \frac{Explained\ Variation}{Total\ Variation}$$

g. Hypothesis Testing:

1. T-test for individual significance of β_1 and β_2:

$$t = \frac{\hat{\beta}}{SE(\beta)}$$

2. F-test for overall model significance:

$$F = \frac{Explained\ Mean\ Square}{Residual\ Mean\ Square}$$

4. RESULTS AND DISCUSSION

4.1. Result

4.1.1. Descriptive Statistics

The descriptive statistics of the dependent and independent variables provide a preliminary understanding of the data used in this study. Table 1 highlights the average performance and variability of the Human Development Index, the number of Islamic financial literacy, and Islamic financial inclusion across Indonesia from 2021 to 2023.

Table 1
Statistical Analysis

Statistic	LN_IPM (Human Development Index)
Mean	4.300971
Standard Deviation	0.007319

Source: Data Processed, 2024.

The mean Human Development Index (HDI) score of 4.30 indicates a stable trend in Indonesia's human development during the analyzed period. This value reflects improvements in education, healthcare, and income distribution. The standard deviation of 0.0073 suggests low variability in HDI across regions, implying relatively consistent development levels nationwide. However, minor disparities may still exist due to differences in regional economic activity, infrastructure, and access to social services. These results highlight the importance of continuous policy interventions to ensure inclusive growth and equitable access to essential services throughout Indonesia.

4.1.2. Multicollinearity Analysis

Before conducting regression analysis, the potential issue of multicollinearity between the independent variables was assessed using a correlation matrix and Variance Inflation Factor (VIF). Table 2 shows the correlation coefficients.

Table 2
Multicollinearity Analysis

Variables	IFL	IFI
Islamic Financial Literacy	1.000	0.660
Islamic Financial Inclusion	0.660	1.000

Source: Data Processed, 2024.

The correlation coefficient between Islamic Financial Literacy and Islamic Financial Literacy is 0.660, which, while positive, remains below the threshold of 0.8, indicating no strong multicollinearity. This is further supported by VIF values, both of which are under 10. The results validate the independence of the variables, ensuring the reliability of the regression model.

4.1.3. Regression Analysis

To determine the relationships between Islamic financial literacy and inclusion and human development, a multiple linear regression analysis was conducted. The regression equation is:

$$HDI = 4.335897 + 0.004087\ 1IFL - 0.0177\ IFI$$

Table 3

Coefficients and Statistical Significance

Variable	Coefficient (β)	Standard Error	t-Statistic	p-Value
Constant	4.3359	0.0112	387.02	<0.001
Islamic Financial Literacy	0.0041	0.0006	7.14	<0.001
Islamic Financial Inclusion	-0.0177	0.0047	-3.80	<0.001

Model Summary

The model explains 69.6% of the variance in HDI (R^2=0.696R), with an adjusted $R^2$of 0.354. The F-statistic of 2.036 ($p < 0.001$) confirms the overall significance of the model. These results indicate that the independent variables jointly explain a substantial portion of the variation in HDI across Indonesian.

4.1.4. Interpretation of Findings

The regression analysis reveals distinct relationships between the independent variables and HDI.

1. Islamic Financial Literacy:

   The coefficient for IFL is positive and statistically significant (β = 0.0041, p < 0.001). This indicates that an increase in the number of Islamic financial institutions correlates with an improvement in HDI. For every 1% increase in IFL, there is a corresponding 0.0041% increase in HDI, holding all other factors constant. This finding supports the notion that the accessibility and availability of Islamic financial institutions play a critical role in enhancing education, health services, and income opportunities, particularly in regions with strong demand for Sharia-compliant services.

   These results align with prior studies emphasizing the importance of financial institutions in promoting inclusive economic development (Sutaryono et al., 2020). However, the relatively small magnitude of the coefficient suggests that other supporting factors, such as public awareness and government policies, are needed to maximize the impact of Islamic financial institutions on human development.

2. Islamic Financial Inclusion:

   The coefficient for IFI is negative and statistically significant ($\beta = -0.0177$, $p < 0.001$), indicating that an increase in Islamic financial investment correlates with a decrease in HDI. This counterintuitive result may be attributed to inefficiencies in the allocation of Islamic financial investments, such as their concentration in specific sectors or regions that fail to address broader developmental needs. For example, investments may prioritize large-scale projects over grassroots initiatives, limiting their impact on improving education, healthcare, and income equality.

   The negative relationship also underscores the importance of designing investment frameworks that align more closely with HDI components. Enhanced transparency, equitable distribution, and targeted investments in underserved communities could mitigate this negative effect and amplify the developmental benefits of Islamic finance.

4.1.5. Assumption Testing

To ensure the validity of the regression results, diagnostic tests were performed:

a. Normality: The Jarque-Bera test confirmed that residuals are normally distributed ($p > 0.05$).
b. Homoscedasticity: The Breusch-Pagan test indicated homoscedasticity ($p = 0.4055$), verifying that the residual variance is constant.
c. Autocorrelation: The Durbin-Watson statistic of 2.039 confirmed no significant autocorrelation in the residuals.

These tests validate the robustness of the regression model and its suitability for interpreting the relationships between the variables.

4.2. Discussion

The findings of this study provide valuable insights into the relationship between Islamic financial literacy, financial inclusion, and human development in Indonesia. The positive relationship between Islamic financial literacy and the Human Development Index (HDI) aligns with existing literature, such as the work of Hassana and Aliyub (2018), which highlights how enhanced understanding of Islamic financial products promotes better financial decision-making and usage. Increased literacy enables individuals to make informed financial choices that align with their values, thereby contributing to improvements in education, healthcare, and income as key components of HDI. However, the relatively small magnitude of the effect suggests that while literacy is an essential factor, its impact is mediated by complementary policies and institutional support.

Conversely, the negative correlation observed between Islamic financial inclusion and HDI is both surprising and revealing. While previous studies have underscored the potential of Islamic finance to foster inclusive development (KNEKS, 2024; Arafah et al., 2023), this study suggests inefficiencies in the current implementation of Islamic financial services in Indonesia. One plausible explanation lies in the allocation of investments. Islamic financial institutions may be channelling resources disproportionately toward large-scale commercial projects that do not directly benefit underserved or rural populations. As a result, these investments fail to address the immediate developmental needs of communities, such as access to quality education and healthcare.

Furthermore, the regional disparity in financial inclusion rates exacerbates this issue. Data from the Financial Services Authority (OJK, 2022) highlights significant gaps in access to Islamic financial services between urban and rural areas. This imbalance limits the potential of Islamic financial inclusion to contribute equitably to HDI improvements. Research by Sutaryono et al. (2020) corroborates this observation, identifying geographical constraints, limited product diversity, and insufficient awareness as critical barriers to financial inclusion in Indonesia.

These findings underscore the urgent need for targeted policy interventions to enhance the efficacy of Islamic financial systems. First, improving public awareness through localized financial literacy campaigns is imperative. Such initiatives should focus on educating individuals not only about the principles of Shariah finance but also about how to access and effectively utilize Islamic financial products. Community-based programs can be particularly effective in reaching populations in remote and underserved areas.

Second, there is a pressing need to re-evaluate investment strategies within the Islamic finance sector. Policymakers and financial institutions should prioritize projects with direct developmental impacts, such as infrastructure for education and healthcare, rather than focusing solely on large-scale commercial endeavors. Moreover, incorporating principles of equity and social justice core tenets of Islamic finance into investment decisions can help address inequalities and ensure that the benefits of financial inclusion are distributed more broadly.

The negative correlation between Islamic financial inclusion and HDI also invites further investigation into the governance and operational efficiency of Islamic financial institutions. For instance, are the current product offerings adequately tailored to the needs of diverse demographic groups? Do these institutions have mechanisms to ensure that their investments align with national development goals? Addressing these questions requires collaboration between regulators, financial institutions, and academic researchers.

Finally, this study highlights the importance of technological innovations, such as Islamic financial technology (FinTech), in bridging the gaps in financial inclusion. Digital platforms can play a pivotal role in extending the reach of Islamic financial services to underserved regions, reducing operational costs, and improving accessibility. Countries like Malaysia have demonstrated the success of such initiatives, offering valuable lessons for Indonesia.

5. CONCLUSION

This study highlights the potential of Islamic financial literacy and inclusion to enhance human development in Indonesia, as measured by the Human Development Index (HDI). While Islamic financial literacy positively influences HDI by promoting informed decision-making and economic participation, the negative correlation between financial inclusion and HDI underscores inefficiencies in resource allocation and accessibility. These findings call for targeted efforts to improve literacy, equitable investment strategies, and technological innovations to bridge regional disparities. By addressing these challenges, Islamic finance can serve as a powerful tool for fostering inclusive and sustainable development in Indonesia.

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