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To What Extent Does Waqf Advance Sustainable Economic Growth? Evidence From Indonesia

Nor Nabilla Muhammad[1], Anniza Citra Prajasari[2], Izra Berakon[3]

UIN Sunan Kalijaga[1,2], Sakarya University[3]
nabilacahya71@gmail.com, anniza.prajasari@uin-suka.ac.id, izra.berakon@ogr.sakarya.edu.tr

Abstract

This study aims to examine the potential factors of Waqf Productiveness in advancing the Islamic economy and supporting the achievement of the SDGs through sustainable and impactful economic development in Indonesia. Researchers highlight three gaps including theoretical, empirical, and methodological gaps, which further encourage researchers to formulate novelties on the role of economic empowerment of the ummah in driving sustainable economic growth. The urgency of conducting a quantitative analysis to identify the key factors of sustainable economic growth through Waqf is emphasized, considering that most previous studies on Waqf issues have been dominated by perception-based analysis. Moreover, this study employs the Panel Data Analysis from 33 provinces in Indonesia for the 2020–2023 period. Robustness test was employed to support strong results. The results show that the National Waqf Index (NWI) and MSMEs can enhance sustainable economic growth both in HDI and EG. Additionally, digital literacy and financial inclusion variables were found to be predictors of sustainable economic growth, rather than moderators. Further, this research contributes to increasing the potential of Waqf within the broader Islamic economic in supporting policy strategy sustainable, long-term economic resilience, and social welfare particularly in Indonesia.

***Keywords**: Waqf; Sustainability; Economic Growth; Economic Development.*

Introduction

Indonesia is the country with the largest Muslim population in the world. By 2025, Indonesia is projected to have 242.7 million Muslims out of a total population of 275 million, representing 88.25% of the Indonesian population, contributing 12.27% of the world's Muslim population. Pakistan follows, with a Muslim population contribution of 12.17%. India, the third-largest Muslim population contributor, is 10.11% (World Population Review, 2025). Indonesia's demographic bonus presents a significant opportunity to develop an Islamic economy focused on improving the welfare of its people.

Considering the number of Muslim population and one of the countries with the largest number of Islamic financial institutions in the world, the National Committee for Islamic Economics and Finance is present as a catalyst for Islamic finance in order to accelerate, intensify, develop, expand, and improve the development of Islamic economics and finance to strengthen good economic conditions nationally. In other words, KNEKS

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positions Indonesia as one of the main players and hubs of the world's Islamic economy in line with the launch of the Indonesian Islamic Economic Masterplan in May 2019. The vision of the masterplan is to realize "an independent, prosperous and civilized Indonesia by becoming a leading center for the world's Islamic economy" with the main target achievements being increasing the scale of Islamic economic and financial businesses, increasing positions in the Global Islamic Economy Index, increasing economic independence, and increasing the welfare index of the Indonesian people (Ministry of National Development Planning, 2018).

However, Indonesia's progress toward achieving its vision of becoming a leading hub for the global Islamic economy remains constrained by uneven development outcomes across its regions. The Human Development Index (HDI) continues to reflect structural disparities. In 2024, Indonesia's national HDI stood at 75.09 percent, placing the country in the "high human development" category, yet the interprovincial gap remains stark. Provinces such as DKI Jakarta, Yogyakarta, and Bali consistently score above 80, while eastern provinces, including Papua, West Papua, and East Nusa Tenggara, remain below 65 (BPS, 2024). This divergence indicates that improvements in education, health, and living standards have not been distributed evenly across regions, limiting Indonesia's ability to achieve inclusive and sustainable growth.

This condition is further emphasized by Indonesia's Williamson Index, which measures regional economic inequality. Over the past decade, Indonesia's Williamson Index has remained relatively high, generally within the range of 0.5–0.7, reflecting persistent spatial disparities in regional economic performance (Kuncoro, 1997; Tambunan & Sikumbang, 2011). Western Indonesia, particularly Java and Sumatra, dominates national economic activity, while eastern regions contribute a significantly smaller share. A higher Williamson Index signals that monetary expansion has not been accompanied by proportional improvements at the provincial level, thereby posing a structural obstacle to the acceleration of equitable development.

These empirical conditions underscore the urgency of identifying socio-economic instruments capable of reducing interregional disparities while simultaneously improving human development. One of the strategic instruments that aligns with these objectives is Islamic social finance, particularly waqf, alongside MSME empowerment and domestic investment. Strengthening these instruments is essential to support sustainable and balanced economic growth across Indonesia's diverse regions.

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To achieve this vision, key strategies are needed, including strengthening the halal value chain, boosting Sharia finance, empowering Micro, Small and Medium Enterprises (MSMEs), and enhancing the digital economy (Ministry of National Development Planning, 2018). Therefore, researchers conducted an exploratory study to determine whether this strategy can be considered a socio-economic strategy by optimizing the role of Sharia social finance, such as waqf, MSMEs, and direct regional investment, in increasing sustainable economic growth, emphasizing both economic and social aspects. In this regard, the role and involvement of all stakeholders is essential for collaboration and the formation of a sound ecosystem to formulate a sustainable economic growth strategy (Nanang Setiawan et al., 2025).

Waqf stands out as a form of social finance with significant potential for development. Waqf plays a crucial role in enhancing economic and social development and contributes to supporting the development of the education, health, and poverty alleviation sectors, particularly in Malaysia, Turkey, and the Gulf countries (Mohsin & Muneeza, 2020; Nanang Setiawan et al., 2025). Nevertheless, waqf productivity and performance need to be reviewed to determine whether they are truly capable of supporting sustainable economic growth in Indonesia. Furthermore, achieving high levels of waqf productivity and performance requires support from digitalization and robust financial inclusiveness to achieve optimal economic growth.

Researchers formulated sustainable economic growth as the result of synergy between the performance of waqf (as part of social finance), MSMEs (as a pillar of the regional economy), and regional direct investment (as a catalyst for regional development) using three dimensions: long and healthy life, knowledge, and a decent standard of living. Long healthy life can be measured using life expectancy at birth, which can then be calculated using the life expectancy index. Knowledge is measured by expected years of schooling and mean years of schooling, which are then measured using the education index. And a decent standard of living is measured using Gross National Income (GNI) per capita, which is then measured using the GNI index (United Nations Development Programme, 2025). Moreover, researchers use Economic Growth measurements as a key to the economic and financial performance of a region as has been done by Afzal et al. (2025) and Tran & Tran (2025). Thus, researchers use the term "sustainable" with consideration of socio-economic issues, which can then create sustainability at regional, national, and global levels. Furthermore, previous research has also proven to use the variable of sustainable economic growth, integrating Maqashid Syariah with SDGs practices, which can then increase inclusiveness and sustainable economic growth (Afzal et al., 2025).

This study highlights three research gaps, which researchers then use as standards for formulating new research. These three gaps are theoretical, empirical, and methodological gaps. Although social finance has developed quite well in Indonesia, researchers recognize that waqf theory is still under development and has now shifted to strategic and productive areas, with the hope that social finance can bridge and provide benefits both nationally and regionally. Social financial assets, such as waqf, if managed and distributed productively, can provide benefits to regions in Indonesia (Mutmainah et al., 2025). Thus, researchers try

to conduct exploratory studies that the creation of a social financial ecosystem, MSMEs, and domestic investment can contribute to regional economic growth to encourage the achievement of SDGs.

Empirically, researchers have declared that social finance such as waqf has a very strategic role in supporting various sectors such as social and financial (Mohamed & Akande, 2025; Nanang Setiawan et al., 2025; Ramdani et al., 2024). Moreover, Arief et al. (2021) demonstrates the enormous potential for waqf development, accompanied by increased waqf literacy in various regions, which is used to build places of worship, Islamic boarding schools, and other religious institutions. However, this opinion certainly requires empirical, quantitative testing, a practice rarely used by researchers on social finance issues, particularly waqf.

Methodologically, previous researchers have raised the issue of the role of Waqf in supporting sustainable development, such as Mohamed & Akande (2025). He emphasized the importance of strategies that can increase the wider utilization of waqf which can then achieve sustainable development. The same research was also conducted by Ali & Shear (2025) using bibliometric methods, emphasizing that Islamic finance can support economic growth. Furthermore, he emphasized that the Islamic finance instruments in question are only sukuk, zakat, and profit-and-loss sharing contracts. Thus, the researcher uses the issue of waqf as a social finance instrument that can potentially catalyze sustainable economic growth. Similar research was also conducted by Ramdani Ramdani et al. (2025) using a systematic literature review method, crowdfunding as a financing mechanism can encourage the achievement of the SDGs. Likewise, Asni et al. (2025) Using a qualitative study, data is collected through a literature review by raising the issue of sustainable zakat through microcredit financing in Malaysia. Shofiatin et al. (2025) and Himmawan et al. (2025) also used a literature review study on waqf studies. Thus, the researcher highlights that some previous researchers used the systematic literature review method to conduct analyses related to social financial instruments. Furthermore, while social financial issues have been frequently discussed in research, some researchers also largely used primary data by adopting structural equation modeling-partial least squares (SEM-PLS) methods (Ashraf et al., 2025; Daud & Wahid, 2025; Muhammad & Al-Shaghdari, 2025; Nanang Setiawan et al., 2025; Panakaje et al., 2025; Rusanti & Anwar, 2025; Sanusi et al., 2025). Thus, researchers realized the need to explore the potential of using quantitative methods with a secondary data approach. This will attempt to link social finance variables with MSME involvement and domestic investment as key drivers of regional economic growth across all provinces in Indonesia.

This research contributes to theoretical aspects showing that researchers involve several predictor variables that can provide improvements in human development and economic growth which researchers then call sustainable economic growth such as optimizing the performance of waqf, MSMEs, and domestic investment activities in every province in Indonesia. Researchers propose a model of these three variables as an independent local economic acceleration to increase sustainable economic growth. By involving social finance such as waqf, researchers are very optimistic that given the

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enormous potential of waqf in Indonesia, so that waqf performance becomes the focus of researchers in building a research model that is then integrated with other variables such as MSMEs and domestic investment as drivers of local economic growth. Furthermore, researchers also consider financial inclusion and digital literacy in order to see their strategic role in driving the acceleration of local economic growth towards sustainable economic growth.

Practically, this research contributes to stakeholders by enhancing waqf performance, empowering MSMEs, and fostering domestic investment, supported by strong and inclusive digital literacy, which, in turn, can drive sustainable and equitable economic growth in the face of national and global uncertainty. This means that the acceleration and independence of each province need to be massively enhanced and contribute significantly to the development of sustainable economic growth. Local governments can also create a cohesive ecosystem that involves waqf, MSMEs, and regional investment working together to drive sustainable economic growth and create a more just and resilient society in the future. Furthermore, this study can practically serve as a driver in assisting local government strategic policies by encouraging openness, collaboration, and supporting the creation of regulations between waqf institutions, MSMEs, and domestic investors to create a resilient and equitable regional economy. Furthermore, the government can also consider utilizing digital-based literacy to strengthen the contribution of waqf to sustainable economic growth. Furthermore, to encourage improved waqf performance, the government can leverage digitalization by launching digital literacy and financial inclusiveness programs, such as training programs for digital asset management. Thus, with this role, it is hoped that the performance of waqf will not only have a social impact but also act as a catalyst for sustainable, fair and equitable economic growth.

Literature Review

1. Waqf Performance

Waqf is an Islamic philanthropic instrument in which assets are donated for social or religious purposes. Waqf funds or properties are managed by a trustee called a Nazir, who then distributes the proceeds to support various activities and socio-economic development in a region (Nanang Setiawan et al., 2025; Sukmana, 2020). Meanwhile, waqf performance refers to the effectiveness of waqf institutions in managing, utilizing, and distributing waqf assets fairly and evenly (Zeni et al., 2021). Waqf performance can be measured using the National Waqf Index, which can be calculated across five dimensions: Finance, Performance, Public Affairs, Community Relations, and Islamic Aspects. Each dimension is measured using several indicators, as described in Table 1.

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Table 1. Dimensions and Indicators of National Waqf Index

Table 1.
Dimensions and Indicators of National Waqf Index

Dimensions	Indicators
Finance	Audited Financial Statements; Cash Outflows Sorted by Category; List of Waqfs; Organizational Structure; Information and Activities of the Sharia Supervisory Board; Daily Management Journal.
Performance	Investment Income (Net Profit per Average Total Assets); Comments from Beneficiaries; Program Effectiveness and Impact Evaluation; Employee Capacity Building Program; Employee Regulations and Code of Ethics; Good Governance Information; Performance Indicators.
Public	Waqf Benefits Information for Beneficiaries; Information on Fund Allocation for Social Empowerment; Environmental Report; Responses to Comments/Recommendations; Program and Activity Descriptions
Public Relation	Provision of Contact and Access; Online Waqf Participation; News and Organization Updates; Frequently Asked Questions.
Islamic Aspects	Sharia Compliance; Regulatory Compliance.

Source: (Badan Wakaf Indonesia, 2022)

2. Sustainable Economy

A sustainable economy is a model of economic development designed to enhance social welfare by emphasizing justice and long-term viability (Moral et al., 2024). This concept has been recognized as an essential indicator for improving economic systems in various countries. From a developmental perspective, sustainability is defined as an entity's ability to endure over a long period, holistically considering environmental, social, and economic aspects (Keser et al., 2025). Various theories, including resource-based theories as well as institutional and cultural heritage theories, have examined the issue of sustainable economic development within a framework of justice (Moral et al., 2024). Keser et al. (2025) uses the growth rate as a metric to measure sustainable economic growth. In this context, the strength of the economic base and the level of societal well-being are crucial, long-term dimensions in implementing a sustainable system. Given these issues, this research aims to classify the definition of a sustainable economy through two primary approaches: the economic approach, which focuses on resource development, and the social approach, which emphasizes societal well-being including education, health, and decent standard of living. This classification aligns with the view of Dutta et al. (2025), who argues that the implementation of a sustainable economy can contribute to sustainability mechanisms in both the economic and social spheres.

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3. Waqf Performance, Digital Literacy, Financial Inclusion, and Sustainable Economic Growth

Waqf is an Islamic philanthropic institution, most of which consider waqf a means of reducing poverty and fostering community empowerment. This institution is used or intended to help meet the needs of the poor (Karimah et al., 2023). Habibi (2024) explained in a study that waqf has a significant contribution to driving sustainable economic growth. Furthermore, waqf can also support the implementation of regional and government policies by providing support in education, health, and knowledge development (Lestari et al., 2023). Similarly, Rifai (2024) explained that the positive potential of waqf can encourage sustainable financial resources and simultaneously foster social responsibility. In this context, Roslan & Muhamad (2024) research posits that waqf possesses the capacity to catalyze sustainable socioeconomic development.

Furthermore, researchers also highlight the importance of digital financial literacy to strengthen waqf performance towards sustainable economic growth. Habibi (2024) explains that the development of digitalization and innovation can improve wealth redistribution in socio-economic aspects. Furthermore, financial inclusion plays a crucial role in strengthening the influence of waqf performance on sustainable economic growth. In this regard, improving financial services and access to finance in the use and management of waqf can encourage sustainable economic growth by providing capital financing sources such as loans, investments, and strengthening financial security systems (Elmahgop et al., 2025). Additionally, financial inclusion can contribute to the development and participation of the formal economy, which can then lead to sustainable economic development (Ul-durar et al., 2025).

Based on these findings, the researchers propose the following hypothesis:

Hypothesis 1: Waqf performance has a significant positive effect on Sustainable Economic Growth in Indonesia

Hypotheses 1a: Waqf performance has a significant positive effect on Human Development Index in Indonesia

Hypotheses 1b: Waqf performance has a significant positive effect on Economic Growth in Indonesia

Hypotheses 2: Digital Literacy strengthens the positive effect of Waqf Performance on Sustainable Economic Growth in Indonesia

Hypotheses 2a: Digital Literacy strengthens the positive effect of Waqf Performance on Human Development Index in Indonesia

Hypotheses 2b: Digital Literacy strengthens the positive influence of Waqf Performance on Economic Growth in Indonesia

Hypotheses 3: Financial Inclusion strengthens the positive influence of Waqf Performance on Sustainable Economic Growth in Indonesia

Hypotheses 3a: Financial Inclusion strengthens the positive influence of Waqf Performance on Human Development Index in Indonesia

Hypotheses 3b: Financial Inclusion strengthens the positive influence of Waqf Performance on Economic Growth in Indonesia.

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4. MSMEs and Sustainable Economic Growth

Micro, Small, and Medium Enterprises (MSMEs), as defined by Law Number 20 of 2008 in Indonesia, are small-scale businesses or entities owned by individuals or business groups that productively hold a specific amount of assets and/or annual income. This sector plays a vital role as a driver of economic growth (Dutta et al., 2025). Evidence of this is seen in the fact that MSMEs contribute 60.5% of the Gross Domestic Product (GDP) and, perhaps most notably, account for 96.9% of the total national labor force (Prasetya, 2023). Furthermore, MSMEs contribute to the stability of the Indonesian economy, particularly during periods of instability (Fadillah & Rachmat, 2025). This sector also promotes community welfare and provides strong economic opportunities, thereby improving individuals' quality of life (Agus Santoso et al., 2025). Research by (Singh et al., 2025) emphasizes that MSMEs, when supported by adequate resources, individual financial literacy, and robust technological and innovative capabilities, can significantly drive growth in developing nations.

These findings lead the researcher to propose the following hypothesis:

Hypotheses 4: The number of MSMEs has a significant positive effect on Sustainable Economic Growth in Indonesia

Hypotheses 4a: The number of MSMEs has a significant positive effect on Human Development Index in Indonesia

Hypotheses 4b: The number of MSMEs has a significant positive effect on Economic Growth in Indonesia.

5. Direct Domestic Investment and Sustainable Economic Growth

Domestic investment is defined as capital sourced from individuals, companies, or the public sector (Abdulle et al., 2025). This investment plays a pivotal role in driving economic development by helping to reduce poverty rates, increase productivity, and improve key macroeconomic indicators (Bakari & Weriemmi, 2024). Research by (Pratama et al., 2024) further highlights the importance of domestic investment. Both domestic and foreign investment can effectively lower poverty rates. Additionally, (Bakari & Weriemmi, 2024) underscore the essential role of domestic capital in fostering economic growth within Arab nations. Similarly, (Oliveira & Santos, 2024) note that foreign investment when channeled into regional development can contribute to long-term sustainable growth. An interesting case study from Indonesia demonstrates the broader societal benefits of domestic investment. Furthermore, (Gaffar et al., 2023) found that domestic investment not only increases long-term economic growth but also directly improves community welfare, as reflected in the Human Development Index of East Kalimantan Province. In essence, domestic investment serves as a cornerstone of national economic strategy, driving both growth and social progress.

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Based on these findings, the following hypothesis are proposed:

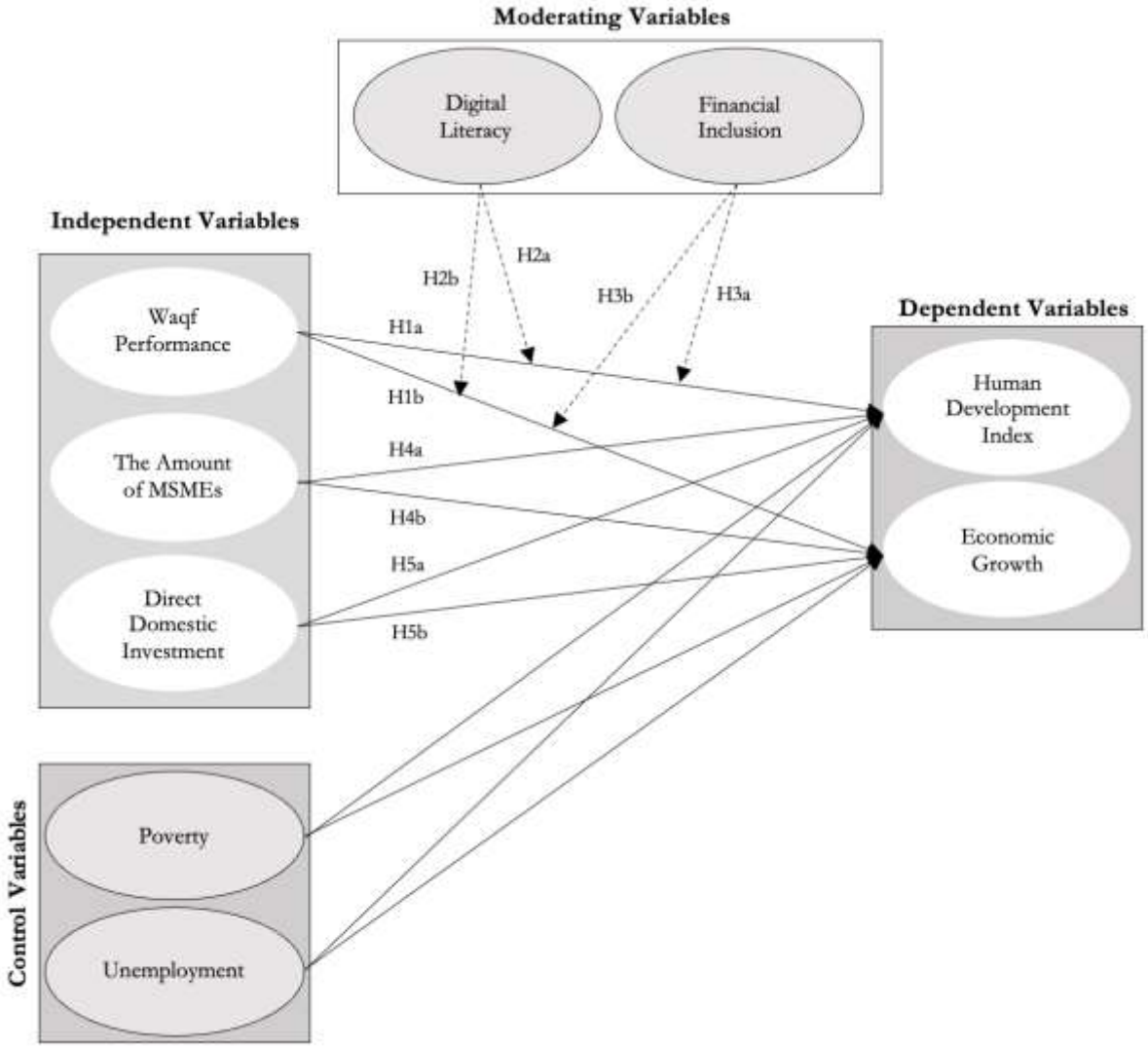
Hypotheses 5: Direct Domestic Investment has a significant positive effect on Sustainable Economic Growth in Indonesia

Hypotheses 5a: Direct Domestic Investment has a significant positive effect on Human Development Index in Indonesia

Hypotheses 5b: Direct Domestic Investment has a significant positive effect on Economic Growth in Indonesia.

The conceptual framework in the research model is as follows:

Figure 1.
Research Conceptual Framework



Source: Authors (2026)

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Research Methods

To analyze how waqf performance, domestic investment, digital financial literacy, and financial inclusion contribute to sustainable economic growth in Indonesia. This study uses a quantitative approach based on panel data. Additionally, the observations of this study are 132 from 33 provinces in Indonesia in 2020-2023 periods. More specifically, this study uses six variables, namely the Human Development Index (HDI) and Economic Growth (EG) as the dependent variables that represent the sustainable economic growth, then the National Waqf Index (NWI), the number of MSMEs, and Domestic Direct Investment (DDI) as independent variables, and Digital Literacy (DL) and Financial Inclusion (FI) as moderating variables to test whether both strengthen their influence on HDI and EG.
The data for this research were obtained from official national sources. HDI, EG, DDI, DL, FI, and MSMEs data were collected from the publications of Statistics Indonesia (www.bps.go.id), while NWI data were accessed from the Indonesian Waqf Board (www.bwi.go.id). The use of panel data enhances the degree of freedom, provides greater variability, and reduces estimation bias (Baltagi, 2008). The operationalization of variables is described as follows in Table 2.

Table 2.
Variables and Measurements

Variable	Operational Definition	Measurement	Formula	Data Source
Human Development Index (HDI)	Human Development Index of Indonesia, reflecting long term achievements in three basic dimensions: longevity & health, knowledge, and a decent standard of living.	Index (0–100)	$HDI = \frac{HI + EI + SI}{3}$ While: HI= Health Index EI= Education Index SI= Standard of Living Index	BPS
Economic Growth (EG)	Gross Regional Domestic Product (GRDP) Growth Rate.	Gross Regional Domestic Product Growth Rate at Constant 2010 Prices by Province (Percent)	GRDP Growth Rate = $\frac{GRDP_t - GRDP_{t-1}}{GRDP_{t-1}} x\ 100\%$	BPS
National Waqf Index (NWI)	Composite index measuring the development of waqf in Indonesia, covering regulation,	Annual index score	$IWN = \sum W_i\ x\ Indicator_i$	BWI

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Variable	Operational Definition	Measurement	Formula	Data Source
	institutional capacity, and utilization aspects.		(Composite of regulation, institution, and utilization dimensions)	
Micro Small Medium Enterprises Growth (MSMEs)	Growth of Micro Small Medium Enterprises.	Number of MSMEs	$MSMEs = Natural\ Log\ of\ Total\ MSMEs$	BPS
Domestic Direct Investment (DDI)	Domestic direct investment at the provincial level.	Value of investment (Rp billion)	$\log DDI = Natural \log\ of\ DDI\ per\ year$	BPS
Digital Literacy (DL)	The level of people's ability to access, understand, and use digital technology in everyday life.	Percentage of Internet usage by household	$DL = (Household\ Internet\ access\ in\ 3\ month)/(total\ households)$	BPS
Financial Inclusion (FI)	The level of public accessibility to formal financial services.	Access to banking product	$FI = Natural\ lof\ of\ Total\ Bank\ Account$	BPS
NWI × DL (M1)	Interaction between NWI and Digital literacy as a moderating variable.	Product of NWI and DL scores	$M1 = NWI\ x\ DL$	Constructed by researchers
NWI × FI (M2)	Interaction between NWI and financial inclusion as a moderating variable.	Product of NWI and FI scores	$M2 = NWI\ x\ FI$	Constructed by researchers

Source: Authors (2026)

For further information, the interaction variables (M1 and M2) are constructed through mean-centering to reduce multicollinearity (Aiken, 1991). Following the construction of all variables, the econometric specification is developed to assess the proposed relationships empirically. Accordingly, the panel regression model is expressed as follows:

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$$HDI_{it}; EG_{it} = \alpha + \beta_1 NWI_{it} + \beta_2 logMSMEs_{it} + \beta_3 logDDI_{it} + \beta_4 DL_{it} + \beta_5 logFI_{it} + \beta_6 M1_{it} + \beta_7 M2_{it} + \mu_i + \varepsilon_{it}$$

While:

i = Province; t = year
μ_i = Province fixed effect
ε_{it} = Idiosyncratic error
$\beta_{1,2,..7}$ = Regression coefficient
HDI_{it} = Human development index of the *i* province, year *t*
EG_{it} = Economic growth of the *i* province, year *t*
NWI_{it} = National waqf index of the *i* province, year *t*
$logMSMEs_{it}$ = Natural log of total MSMEs of the *i* province, year *t*
$logDDI_{it}$ = Natural log of domestic direct investment of the *i* province, year *t*
DL_{it} = Digital literacy of the *i* province, year *t*
$logFI_{it}$ = Natural log of financial inclusion of the *i* province, year *t*
$M1_{it}$ = Interaction between NWI and DL as a moderating variable of the *i* province, year *t*
$M2_{it}$ = Interaction between NWI and FI as a moderating variable of the *i* province, year *t*

The estimation technique applied is the Fixed Effect Model (FEM) with robust Variance–Covariance Estimation (VCE) to address heteroskedasticity. FEM was chosen because it controls for unobserved heterogeneity across provinces that are time-invariant, yielding more consistent estimates compared to pooled OLS (Wooldridge, 2010). Several diagnostic tests were conducted to ensure the model's validity. First, the Chow test was applied to determine whether pooled OLS or FEM is more appropriate (Gujarati, 2009a). Second, the Hausman test was conducted to compare FEM with the Random Effect Model (REM) and confirm estimator consistency (Hausman, 2015).

Additionally, multicollinearity was examined using the Variance Inflation Factor (VIF), followed by tests for heteroskedasticity. Corrected standard errors were used to enhance the reliability of the estimation results. As an additional validation step, this study also performed robustness tests by incorporating two additional control variables, such as Poverty Rate (POV) and Unemployment Rate (UNM), into the baseline model. This study includes poverty rate and unemployment rate as control variables because both represent fundamental socio-economic conditions that strongly influence economic growth and shape the baseline environment in which waqf operates. Poverty rate captures welfare deprivation, household resource constraints, and consumption capacity. Higher poverty levels are associated with weaker productivity and constrained economic participation, which can distort the measured impact of waqf on growth if not controlled for (Todaro & Smith, 2009; World Bank, 2022). Controlling for poverty, therefore, prevents omitted-variable bias arising from heterogeneous welfare conditions across regions.

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The unemployment rate is also included because employment absorption is one of the most consistent predictors of macroeconomic performance. Unemployment affects household income, aggregate demand, and economic stability, making it a standard baseline control in growth regressions and social-finance impact studies (Blanchard, 2013; Mankiw, 2019). Empirical evidence shows that unemployment fluctuations influence both short-run and long-run growth trajectories, which necessitates its inclusion to isolate the independent effect of waqf. Alternative socio-economic controls, such as education index, health index, or urbanization, were not included because these indicators correlate strongly with poverty and unemployment, raising the risk of multicollinearity (Gujarati, 2009b). Additionally, these variables act as upstream determinants of poverty and unemployment themselves; their inclusion would introduce conceptual redundancy and reduce model parsimony. Therefore, using poverty rate and unemployment rate provides a theoretically grounded and empirically stable specification that ensures the robustness of the estimated relationship between waqf and sustainable economic growth.

Through this comprehensive methodological design, the study aims to provide strong empirical evidence regarding the role of NWI, MSMEs, domestic investment in enhancing sustainable economic growth measured by human development and economic growth as well digital literacy and financial inclusion in strengthening the three independent variables on sustainable economic growth in Indonesia.

Result and Discussion

Result

1. Descriptive Statistics and Correlation

This study employed two fundamental statistical methods, descriptive statistics and correlation analysis, to examine the data prior to performing a regression test. The outcomes of this preliminary analysis are detailed in Table 3. The descriptive analysis utilized the mean value of each variable to summarize the data's central tendency. Additionally, the correlation analysis revealed the absence of a strong relationship between the variables, with all correlation coefficients registering below the 0.8 threshold (Wooldridge, 2003). This finding suggests a lack of significant multicollinearity, a crucial prerequisite for a robust regression model. The researchers also performed a Breusch-Pagan or Cook-Weisberg test to check for heteroscedasticity. The test p-value of 0.0908 for HDI and 0.8757 for EG, which is well above the conventional significance level of 0.05. This result indicates that the null hypothesis of constant error variance, or homoscedasticity. Therefore, the research model is free from heteroscedasticity issues, ensuring that the regression estimates are both efficient and valid.

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Table 3.
Results of Descriptive Statistics and Correlation

Variables	Obs	Mean	HDI	EG	NWI	MSMEs	DDI	DL	FI	UNM	POV
Human Development Index (HDI)	132	72.069	1.0000								
Economic Growth (EG)	132	3.41	-0.0415	1.0000							
National Waqf Index (NWI)	132	0.206	0.2755	0.1587	1.0000						
Micro/Small/Medium Enterprises (MSMEs)	132	122082.73	0.0404	-0.0902	0.0647	1.0000					
Direct Domestic Investment (DDI)	132	17943.83	0.0407	-0.0682	0.0582	0.3691	1.0000				
Digital Literacy (DL)	132	83.142	0.6583	0.2655	0.4753	-0.0332	-0.0934	1.0000			
Financial Inclusion (FI)	118	14920739	0.4542	-0.0185	0.1896	0.1463	-0.0189	0.3301	1.0000		
Unemployment (UNM)	132	5.337	0.3358	-0.3113	0.0272	0.2278	-0.1689	0.1230	0.3726	1.0000	
Poverty (POV)	132	9.891	-0.5239	-0.0006	-0.0221	0.0578	0.2274	-0.5108	-0.2004	-0.3283	1.0000

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2. Regression Analysis Results

The researchers conducted panel data regression analysis by testing the national waqf index, MSMEs, and direct domestic investment on sustainable economic growth in 33 provinces in Indonesia as described in Table 4. Researchers classified the regression results based on 12 models, including models 1, 3, 5, 7, 9, and 11 are the results of regression analysis on the HDI variable, while models 2, 4, 6, 8, 10, and 12 are regression analyses specifically for the EG variable. Furthermore, in models 1 and 2, only independent factor models were used, namely the national waqf index, MSMEs, and DDI on sustainable economic growth. While in models 3 and 4, researchers added a control variable, namely poverty. In models 5 and 6, researchers added a control variable measured by unemployment. In models 7 and 8, researchers added two previous control variables, namely poverty and unemployment. In models 9 and 10, researchers included digital literacy and financial inclusion variables, each measured in the HDI and EG variables. Finally, in models 11 and 12, the researchers added digital literacy and financial inclusion variables as moderator variables.

The results of the study indicate that the national waqf index has a positive effect on the HDI and EG. This is evidenced by the NWI value below 0.001 in models 1, 2, 3, 4, 5, 7, and 8, meaning they have a positive and very strong influence on sustainable economic growth. While model 6 indicates a p-value below 0.05, model 9 is significant at below 0.01. Second, the results of the study indicate that MSMEs have a positive effect on the HDI and EG. However, this result is inconsistent when applied to the dependent variable EG. Furthermore, the DDI variable shows that this variable consistently does not affect either the HDI or EG, meaning DDI does not affect sustainable economic growth. Furthermore, models 9 and 10 show that digital literacy plays a very important role in increasing the human development index and economic growth in 33 provinces in Indonesia. Interestingly, when researchers included digital literacy and financial inclusion as moderating variables, the results showed that these two variables were proven to be incapable of supporting the research hypothesis. Therefore, the results of the moderation model could not be proven. Nevertheless, the results of financial inclusion show a positive influence on sustainable economic growth. However, digital literacy only serves as a predictor variable for the human development index in Indonesia.

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Table 4.
Regression Analysis Results

	(1) HDI	(2) EG	(3) HDI	(4) EG	(5) HDI	(6) EG	(7) HDI	(8) EG	(9) HDI	(10) EG	(11) HDI	(12) EG
IWN	3.205***	11.12***	2.772***	12.47***	1.827***	2.805**	1.564***	4.436***	0.666*	-0.977	-7.273*	-46.90*
	(8.88)	(8.43)	(6.90)	(7.79)	(5.50)	(2.22)	(4.78)	(3.15)	(1.78)	(-0.43)	(-1.74)	(-1.71)
log_MSMEs	1.197***	5.070**	1.117***	5.319***	0.601**	1.472	0.569**	1.672	0.566**	-0.161	0.514*	-0.498
	(3.92)	(2.68)	(3.87)	(2.78)	(2.09)	(0.98)	(2.18)	(1.12)	(2.08)	(-0.10)	(2.03)	(-0.33)
log_DDI	-0.00673	-0.457	0.0156	-0.527	-0.0156	-0.511	0.00180	-0.618	0.00339	-0.367	0.00669	-0.354
	(-0.07)	(-0.69)	(0.17)	(-0.78)	(-0.23)	(-1.13)	(0.03)	(-1.32)	(0.06)	(-0.68)	(0.12)	(-0.66)
POV			0.404***	-1.259			0.307***	-1.904***				
			(3.32)	(-1.48)			(3.77)	(-2.97)				
UNM					-0.478***	-2.882***	-0.455***	-3.024***				
					(-6.08)	(-6.98)	(-6.06)	(-6.73)				
DL									0.0507***	0.334***	0.0517***	0.357***
									(4.82)	(4.72)	(4.53)	(3.60)
log_FI									0.193***	0.642	0.116***	0.0777
									(3.39)	(1.60)	(2.96)	(0.18)
M1											0.0154	-0.0174
											(0.24)	(-0.05)
M2											0.416**	3.003***
											(2.07)	(2.86)
_cons	58.34***	-50.23**	55.11***	-40.15**	67.80***	6.803	64.89***	24.87*	58.74***	-28.60*	60.41***	-18.20
	(17.01)	(-2.46)	(16.72)	(-2.17)	(20.73)	(0.46)	(20.30)	(1.76)	(19.70)	(-1.81)	(19.84)	(-1.13)
Obs.	132	132	132	132	132	132	132	132	118	118	118	118
R2	0.490	0.230	0.540	0.248	0.692	0.496	0.720	0.536	0.791	0.564	0.806	0.592

t statistics in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$
Notes: HDI: Human Development Index; EG: Economic Growth; NWI: National Waqf Index; Log_MSMEs: Log Micro/Small/Medium Enterprises; Log_DDI: Log Direct Domestic Investment; POV: Poverty; UNM: Unemployment; DL: Digital Literacy; Log_FI: Log Financial Inclusion

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3. Robustness Test

To validate these findings, the researchers conducted a robustness test by examining the lagged effect of the National Waqf Index (NWI) on sustainable economic growth, using the Human Development Index (HDI) and Economic Growth (EG) as indicators. The results presented in Table 5 are broadly consistent with the main findings. The lagged NWI shows a positive and significant effect on the HDI but a negative and significant effect on economic growth. This seemingly contradictory pattern aligns with the theoretical characteristics of waqf-based social spending, where allocations are primarily directed toward education, health, and welfare-enhancing activities rather than directly productive sectors (Çizakça, 2011; Rosman et al., 2022; Sadeq, 2002). Such allocations yield immediate improvements in human development but often require a longer gestation period before translating into measurable economic output. Development theory also suggests that social investments improve welfare first and only contribute to economic growth after sufficient human capital accumulation has taken place. Thus, the negative short-run coefficient does not contradict the waqf theory. It reflects a temporal lag in the welfare growth transmission mechanism (Todaro & Smith, 2009).

The MSME variable also shows a positive and significant impact on the HDI but has no significant effect on the EG. This result is consistent with empirical evidence that MSMEs in developing economies are dominated by micro-scale, low-capital, low-productivity activities that primarily serve as income stabilizers rather than engines of high-output growth (OECD, 2019; Tambunan, 2009). MSMEs effectively absorb labor, reduce household vulnerability, and enhance livelihood security but lack the technological capacity and scale required to influence provincial-level GDP growth (Beck & Demirguc-Kunt, 2006).

Domestic direct investment (DDI) remains statistically insignificant in both models. This reflects well-documented structural issues in Indonesia, where domestic investment is often concentrated in sectors with limited spillover effects or clustered in already developed provinces, restricting its ability to generate broad-based growth(Hill et al., 2008; Kuncoro, 1997). Empirical studies also highlight persistent regulatory inefficiencies and infrastructure gaps that weaken the transmission from investment to aggregate output (World Bank, 2025).

Finally, digital literacy and financial inclusion continue to show positive and significant effects on both HDI and EG. This is in line with global evidence that digital capabilities and financial access serve as systemic enablers of development, increasing educational access, financial resilience, entrepreneurial activity, and market participation (Demirgüç-Kunt et al., 2022; Suri & Jack, 2016). These findings reaffirm the role of digital and financial infrastructure as catalysts for inclusive economic growth. Taken together, the robustness test results illustrate that waqf and MSMEs deliver rapid welfare improvements, while their influence on economic output materializes only after sufficient scale, institutional strengthening, and capacity-building occur.

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Table 5.
Robustness Test Results

Variables	(1) HDI	(2) EG
Lag1_National Waqf Index	1.066*** (3.14)	-6.698*** (-3.55)
Log_ Micro/Small/Medium Enterprises (MSMEs)	0.558** (2.29)	-0.00556 (-0.00)
Log_Direct Domestic Investment	0.00822 (0.16)	-0.372 (-0.76)
Digital Literacy	0.0641*** (5.25)	0.260*** (2.88)
Log_Financial Inclusion	0.196*** (3.59)	0.768* (1.89)
_cons	57.54*** (19.64)	-24.79 (-1.52)
Obs.	117	117
R^2	0.816	0.618

t statistics in parentheses
** p < 0.1, ** p < 0.05, *** p < 0.01*

Discussion

The authors were unable to include all of Indonesia's provinces due to data limitations. Specifically, the availability of the National Waqf Index (NWI) variable was a constraint during the research period. Consequently, five provinces were excluded from the analysis. The study's findings are thus based on data from 33 provinces, including Aceh, North Sumatra, West Sumatra, Riau, Jambi, South Sumatra, Bengkulu, Lampung, the Belitung Islands, the Riau Islands, Jakarta, West Java, Central Java, Yogyakarta, East Java, Banten, Bali, West Nusa Tenggara, East Nusa Tenggara, West Kalimantan, Central Kalimantan, South Kalimantan, East Kalimantan, North Kalimantan, North Sulawesi, Central Sulawesi, South Sulawesi, Southeast Sulawesi, Gorontalo, West Sulawesi, Maluku, North Maluku, and West Papua.

However, waqf performance in 33 Indonesian provinces has improved annually. The 10 provinces with the highest average waqf performance over a four-year period are Aceh (0.4135), Bali (0.3077), DKI Jakarta (0.3017), Banten (0.2845), East Kalimantan (0.2797), East Java (0.2777), West Sumatra (0.2567), Central Java (0.2532), Lampung (0.2505), and Riau Islands (0.2395). Conversely, the provinces with the lowest average waqf performance are West Sulawesi (0.1205), North Sulawesi (0.1342), and East Nusa Tenggara (0.1365). While each province has shown improvement, these findings suggest that local governments need to develop more effective strategies to maximize waqf's potential as a social fund that can significantly contribute to sustainable economic growth.

The performance of waqf has been proven to significantly influence sustainable economic growth. This study found the interesting result that waqf not only positively impacts social issues, but also has a positive effect on economic value, represented by regional economic growth in Indonesia. Given Indonesia's large Muslim population, the study's results indicate significant potential for developing and improving waqf performance as a driver of sustainable economic growth. Accordingly, the appropriate processing and distribution of waqf can promote the welfare of local communities, which

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in turn can drive economic growth and improve quality of life, particularly in education, health, and well-being. This aligns with the finding of Ma & Sukmana (2025) that the concept of waqf as an Islamic philanthropic institution has objectives that are in line with the Sustainable Development Goals (SDGs) which emphasize long-term social and economic benefits. Hai et al., 2021; Mubarok & Kurnia (2025) also stated that integrating the Sustainable Development Goals (SDGs), waqf, and Maqasid Sharia can lead to the creation of prosperity and social justice, in addition to alleviating poverty.

Waqf has emerged as a strategic solution for global issues by supporting community development in areas such as education, health, and poverty alleviation, and it can serve as a form of intuition-based funding (Amin, 2025). Furthermore, waqf has developed and integrated with modern financial and economic systems, which expands its potential for further development (Ma & Sukmana, 2025). This indirectly indicates that waqf has considerable potential on a global scale. This social finance industry reflects the steady growth of endowment funds and provides insights derived from religious heritage (Amin, 2025). Additionally, Vasantha et al. (2025) investments based on waqf can increase the financing of public infrastructure in micro-networks, which can, in turn, encourage improved waqf performance.

Digital Literacy (DL) and Financial Inclusion (FI) act as direct predictor variables for sustainable economic growth consistently by HDI, rather than as moderating variables. This result is consistent with the robustness tests, which provide evidence that lagged waqf performance and MSMEs can enhance sustainable growth, particularly for the HDI. Therefore, digital literacy and financial inclusion are key drivers of sustainable economic growth. This finding is also consistent with the research of Tulcanaza-Prieto et al. (2025), which states that digital literacy does not moderate the relationship between financial inclusion and financial well-being, partly due to the uneven distribution of digital literacy across provinces in Indonesia.

Digital literacy and financial inclusion were found to directly enhance public access to economic services, thereby creating a more efficient and dynamic ecosystem that drives economic growth. This is consistent with research by Becha et al. (2025), which concluded that digital finance has a significant impact on regional development and economic growth. Additionally, financial inclusion has also been proven to drive increased economic growth. Research by Amaliah et al. (2024) confirms that financial inclusion has a positive effect on economic growth, as measured by GDP. Therefore, the initiation of digital financial inclusion is considered essential for achieving sustainability. This finding is further reinforced by Pandey et al. (2022), which identifies financial literacy and digitalization as key drivers of sustainable growth in North India.

Furthermore, the study highlights that MSMEs contribute to sustainable economic growth. However, this finding is inconsistent when applied to Economic Growth (EG), suggesting that while MSMEs can promote social well-being, their relationship with economic growth is considered too weak to be used as a direct indicator. This is because the relationship is likely controlled by other factors, such as poverty or unemployment rates. According toNurhana et al. (2024), village governments can play a crucial role in supporting

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the development of MSMEs. This support is vital given that limited capital often hinders regional economic growth. Furthermore, MSMEs have been proven to enhance community welfare through their contributions to healthcare, education, income generation, and digitalization. As stated by Sinaga & Sitorus (2023), MSMEs are no longer just drivers of regional economic growth but also key contributors to improving the overall quality of life.

Interestingly, domestic investment has no significant relationship or influence on sustainable economic growth. This finding is consistent across both the human development index (HDI) and regional economic growth metrics. This lack of influence is likely due to the uneven distribution of investment across provinces, which prevents it from maximally contributing to sustainable economic growth in Indonesia. Moreover, not all domestic investment has a direct impact on increasing the HDI and economic growth, as it may be concentrated in sectors that do not fully integrate with the broader regional economy. (Bakari, 2018) found that domestic investment has a negative impact on long-term economic growth. This demonstrates that domestic investment does, in essence, increase the sources of economic growth. However, under different conditions and circumstances within a country, this can be related to several issues related to management and development strategy planning, as well as mistargeted investment, which can lead to a decline in sustainable growth.

Conclusion

This study aims to identify the key factors that can drive sustainable economic growth in Indonesia. The findings demonstrate that the National Waqf Index (NWI) and MSMEs effectively drive sustainable economic growth, which is measured by the Human Development Index (HDI) and Economic Growth (EG). Conversely, domestic investment does not have a significant influence on sustainable economic growth. The study utilizes panel data analysis and robustness testing to support its conclusions. Furthermore, digital literacy is identified as crucial predictors of sustainable economic growth. In contrast, financial inclusion shows an effect solely on the HDI. This research highlights the productive role of waqf within the Islamic economy and its contribution to achieving the Sustainable Development Goals (SDGs) by strengthening the economic empowerment of the people. The results provide a valuable contribution to policy strategies that support long-term economic resilience and social welfare in Indonesia.

However, the researchers acknowledge several limitations in this study. First, the measurement of sustainable economic growth was confined to socioeconomic indicators, without including environmental factors that can represent sustainability issues. Furthermore, the research sample was limited to 33 provinces. Consequently, future researchers are encouraged to include all Indonesian provinces to address social finance issues, such as waqf in fostering sustainable economic growth. The researchers also highlighted limitations in obtaining waqf data, suggesting that future studies should aim to include a broader range of waqf-related variables through a secondary data approach. While this study used a panel data method, it is recommended that future research employ more complex methods to yield more robust results. Additionally, a multigroup analysis model

could be used to compare sustainable economic growth between provinces in Java and outside of Java.

References

Abdulle, A. S., Jama, M. A., & Mohamed, M. (2025). Exploring the impact of domestic investment on economic growth in Somalia : an empirical analysis from ARDL bound testing approach. Cogent Economics & Finance, 13(1). https://doi.org/10.1080/23322039.2025.2499017

Afzal, M. A., Rahman, S. U., Kamran, H. W., Iqbal, Y., & Rasheed, M. (2025). Driving green factor productivity in OECD economies : the effect of fintech , sectoral foreign investment , environmental funding and regulatory power. Kybernetes, September. https://doi.org/10.1108/K-11-2024-3045

Agus Santoso, Trie Hierdawati, Ermaini Ermaini, & Rian Dani. (2025). MSMEs' Contribution in Encouraging the Improvement of Community Welfare. International Journal of Economics and Management Sciences, 2(1), 161–172. https://doi.org/10.61132/ijems.v2i1.434

Aiken, L. S. (1991). Multiple regression: Testing and interpreting interactions. sage.

Ali, N., & Shear, F. (2025). Islamic finance: catalyst or contributor to economic growth? A bibliometric analysis of Scopus-indexed articles. Journal of Islamic Accounting and Business Research. https://doi.org/http://dx.doi.org/10.1108/JIABR-11-2023-0378

Amaliah, I., Ali, Q., Sudrajad, O. Y., Rusgianto, S., Nu'man, H., & Aspiranti, T. (2024). Does digital financial inclusion forecast sustainable economic growth ? Evidence from an emerging economy. Journal of Open Innovation: Technology, Market, and Complexity, 10(2), 100262. https://doi.org/10.1016/j.joitmc.2024.100262

Amin, H. (2025). Digital-based cash waqf behavioural scale : a maqasid approach. Management & Sustainability: An Arab Review. https://doi.org/10.1108/MSAR-03-2025-0081

Arief, S., Mahfudz, A. A., Fasa, M. I., Wibisono, V. F., & Afifah, A. N. (2021). Increasing the Productivity of Waqf Land in Indonesia: Issues and Solutions. ZISWAF: Jurnal Zakat Dan Wakaf, 10(2), 139–154.

Ashraf, M. A., Joarder, M. H. R., & Amir, T. (2025). Borrowers' intention to participate in Islamic small entrepreneurship. Journal of Islamic Accounting and Business Research, September. https://doi.org/10.1108/JIABR-07-2024-0242

Asni, F., Yusli, Y., & Zulkifli, M. I. (2025). Empowering asnaf entrepreneurs: a sustainable zakat framework through microcredit financing – qard hasan in Malaysia. Journal of Islamic Accounting and Business Research. https://doi.org/http://dx.doi.org/10.1108/JIABR-11-2024-0442

Badan Wakaf Indonesia. (2022). Analisis Kinerja Pengelolaan Wakaf Nasional 2022. In Badan Wakaf Indonesia (Issue 15018).

Bakari, S. (2018). The Impact of Domestic Investment on Economic Growth: New Policy Analysis from Algeria. Buletin of Economic Theory and Analysis, 3(1), 35–51. https://doi.org/10.25229/beta.337367

Bakari, S., & Weriemmi, M. El. (2024). Causality Between Domestic Investment and Economic Growth in Arab Countries. Journal Of Maliksussaleh Public Economics, 07(April), 37–47.

Baltagi, B. H. (2008). Econometric analysis of panel data. John Wiley & Sons.

Becha, H., Kalai, M., Houidi, S., & Helali, K. (2025). Digital financial inclusion , environmental sustainability and regional economic growth in China : insights from a panel threshold model. Journal of Economic Structures, 14(4). https://doi.org/10.1186/s40008-025-00347-4

Beck, T., & Demirguc-Kunt, A. (2006). Small and medium-size enterprises: Access to finance as a growth constraint. Journal of Banking & Finance, 30(11), 2931–2943.

Blanchard, O. (2013). Macroeconomics. New Jersey: Pearson Education, Inc.

BPS. (2024). Indeks Pembangunan Manusia. https://www.bps.go.id/assets/publication/2025/05/15/dd9a3ce7dfae1c733e46338f/indeks-pembangunan-manusia-2024.html

Çizakça, M. (2011). Islamic capitalism and finance: Origins, evolution and the future. Edward Elgar Publishing.

Daud, M. S. M., & Wahid, H. (2025). Assessing the role of zakat institutions in the socio-economic sustainability of the poor and destitute in Malaysia. International Journal of Sociology and Social Policy. https://doi.org/https://doi.org/10.1108/IJSSP-01-2025-0036

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19. World Bank Publications.

Dutta, D., Srivastava, P., Zabin Memon, N., & Vedak, C. (2025). Inclusive and sustainable economic growth for MSME firms: examining the impact of sustainable HRM practices on women's well-being. International Journal of Manpower, 46(4), 697–714. https://doi.org/10.1108/IJM-12-2023-0750

Elmahgop, F., Alsulami, F., Gasmelsied, M., Mohammed, A., Abdel-gadir, S., & Elhassan, T. (2025). The Socio-Economic Impacts of Waqf Investment Funds as a Model for Sustainable Financing in Saudi Arabia. Sustainability.

Fadillah, R. N., & Rachmat, A. (2025). The Role of Social Media in Increasing Msme Income: a Case Study in Sumpang Binangae Village, Barru Regency. Meraja Journal, 8(1), 26–35.

Gaffar, E. N. H., Ujianto, H., & Andjarwati, T. (2023). The Effect Of Domestic Investment, Foreign Investment And Government Spending On Economic Growth, Labor Absorption And Community Welfare In East Kalimantan Province. The Seybold Report, 18(3), 1626–1638. https://doi.org/10.17605/OSF.IO/YD3E2

Gujarati, D. N. (2009a). Basic econometrics. McGraw-Hill.
Gujarati, D. N. (2009b). Gujarati, DN, & Porter, DC (2009). Basic Econometrics. New York: McGraw-Hill/Irwin.
Habibi, R. (2024). The Role of Zakat and Waqf in Encouraging Sustainable Economic Growth. Journal of Islamic Economy, 1(2), 8–16.
Hai, A., Kassim, S., & Mohtesham, M. M. J. (2021). An Innovative Sukuk-Waqf for Islamic Microfinance Institutions : Integrating Maqasid Al-Shariah , SDGs and Waqf. Tazkia Islamic Finance and Business Review, 15(1), 19–39.
Hausman, J. (2015). Specification tests in econometrics. Applied Econometrics, 38(2), 112–134.
Hill, H., Resosudarmo, B. P., & Vidyattama, Y. (2008). Indonesia's changing economic geography. Bulletin of Indonesian Economic Studies, 44(3), 407–435.
Himmawan, M. F., Ninglasari, S. Y., & Mirzal, H. (2025). A systematic literature review on waqf governance: stakeholder analysis. International Journal of Ethics and Systems. https://doi.org/http://dx.doi.org/10.1108/IJOES-03-2025-0137
Karimah, D. A., Pamuncak, M. B., & Mubin, M. K. (2023). The Role of Waqf in Supporting Sustainable Development Goals: Linking theory and its practices. International Journal of Islamic Studies, 35(2). https://doi.org/10.23917/suhuf.v35i2.23018
Keser, A., Cutcu, I., Tiwari, S., Eren, M. V., Askar, S. S., & Abouhawwash, M. (2025). How does terrorism hollow out the sustainable economic growth in Big Ten Countries? International Journal of Emerging Markets, 20(3), 1148–1169. https://doi.org/10.1108/IJOEM-03-2023-0384
Kuncoro, M. (1997). Ekonomi pembangunan: teori, masalah, dan kebijakan. (No Title).
Lestari, Y. D., Sukmana, R., Beik, I. S., & Sholihin, M. (2023). The development of national waqf index in Indonesia : A fuzzy AHP approach. Heliyon, 9(5), e15783. https://doi.org/10.1016/j.heliyon.2023.e15783
Ma, Y., & Sukmana, R. (2025). Takeaways from Islamic social finance and sustainable development goals discourse : review and bibliometric analysis on future directions for Zakat , Waqf and Islamic microfinance. Journal of Islamic Accounting and Business Research. https://doi.org/10.1108/JIABR-06-2024-0227
Mankiw, N. G. (2019). Macroeconomics (10th ed.). Worth Publishers.
Ministry of National Development Planning. (2018). Masterplan Ekonomi Syariah Indonesia 2019-2024.
Mohamed, A., & Akande, A. E. (2025). Waqf-led buildings and green infrastructure role in environmental sustainability: understanding critical gaps in current research landscape. Management & Sustainability: An Arab Review. https://doi.org/https://doi.org/10.1108/MSAR-09-2024-0152
Mohsin, M. I. A., & Muneeza, A. (2020). The institution of waqf : an innovation financial tool for socio-economic development. Pearson Malaysia Sdn Bhd.
Moral, I. H., Rahman, M. M., Rahman, M. S., Chowdhury, M. S., & Rahaman, M. S. (2024). Breaking barriers and empowering marginal women entrepreneurs in Bangladesh for sustainable economic growth: a narrative inquiry. Social Enterprise Journal, 20(4), 585–610. https://doi.org/10.1108/SEJ-04-2023-0050

Mubarok, F. K., & Kurnia, A. S. (2025). The relevance of the implementation of Maqashid Shariah and sustainable development goals in Islamic microfinance institutions. Qualitative Research in Financial Markets. https://doi.org/10.1108/QRFM-01-2024-0008

Muhammad, T., & Al-Shaghdari, F. (2025). Waqf microfinance as an alternative and sustainable government empowerment tool towards women in Northern Nigeria: a perceptional analysis. Journal of Business and Socio-Economic Development. https://doi.org/https://doi.org/10.1108/JBSED-11-2024-0124

Mutmainah, L., Nurwahidin, & Huda, N. (2025). Optimizing productive waqf for halal tourism development. Journal of Islamic Accounting and Business Research. https://doi.org/10.1108/JIABR-02-2023-0062

Nanang Setiawan, Aulia, I. F., Muria, R. M., & Hamdani, L. (2025). Fraud risk management and performance of Indonesian waqf institutions: exploring the mediating role of good waqf governance. Management & Sustainability: An Arab Review. https://doi.org/https://doi.org/10.1108/MSAR-12-2024-0252

Nurhana, N., Halim, A., & A, J. D. S. (2024). The Role of SME in Improving Community Welfare : Study from Lara Village , Karossa Sub-District , Central Mamuju Regency , Indonesia. Social Science and Education, 4(2), 227–234.

OECD. (2019). OECD SME and Entrepreneurship.

Oliveira, C., & Santos, R. (2024). Examining the Role of Foreign Direct Investment (FDI) in Sustainable Development. International Journal of Economics, Commerce, and Management, 1(1), 7.

Panakaje, N., Parvin, S. M. R., U.M., B., Nashifa, F., Sheikh, N., Irfana, S., Nihal, M., & Aneesh A, A. K. (2025). Islamic principles for Jamaat collaboration and sustainable business: how organizational learning and financial capacity shape environmental outcomes. Journal of Islamic Accounting and Business Research. https://doi.org/10.1108/JIABR-02-2025-0111

Pandey, A., Kiran, R., & Sharma, R. K. (2022). Investigating the Impact of Financial Inclusion Drivers , Financial Literacy and Financial Initiatives in Fostering Sustainable Growth in North India. Sustainability.

Prasetya, A. (2023). Mengenal Program Pembinaan UMKM Kemenkeu Satu Tahun 2023. Kementerian Keuangan Direktorat Jenderal Kekayaan Negara. https://www.djkn.kemenkeu.go.id/kpknl-medan/baca-artikel/15879/Mengenal-Program-Pembinaan-UMKM-Kemenkeu-Satu-Tahun-2023.html#:~:text=Peran UMKM dalam perekonomian,Bangga Buatan Indonesia (BBI).

Pratama, R. D., Lubis, I., & Sari, R. L. (2024). Analysis Of The Influence Of Domestic Investment, Foreign Direct Investment, Population, Crime Rate, And Unemployment Rate On Economic. Eduvest – Journal of Universal Studies, 4(5), 4251–4268.

Ramdani, R., Widiastuti, T., & Mawardi, I. (2024). Implementation of Islamic values in waqf governance: a systematic literature review. Journal of Islamic Marketing, 15(8), 1925–1941. https://doi.org/10.1108/JIMA-03-2023-0079

https://journal.trunojoyo.ac.id/dinar/index ISSN: 2460-9889 (Print)
DOI: https://doi.org/10.21107/dinar.v8i2.9954 ISSN: 2580-3565 (Online)

Ramdani Ramdani, Yasin, A., Rohmaningtyas, N., Anwar, Moch. K., & Ismail, A. G. (2025). Crowdfunding on sustainable development goals: a systematic literature review. International Journal of Ethics and Systems. https://doi.org/http://dx.doi.org/10.1108/IJOES-12-2024-0397

Rifai, A. W. (2024). Optimizing Productive Waqf : Driving the Growth of Small and Medium Enterprises in Padang. Al Urwah: Sharia Economics Journal, 2(02), 83–97.

Roslan, N. R. I. M., & Muhamad, N. H. N. (2024). Waqf Reporting Standardization : Towards a Comprehensive Governance Framework. International Journal of Academic Research in Business & Social Science, 14(1), 3072–3080. https://doi.org/10.6007/IJARBSS/v14-i1/20610

Rosman, R., Redzuan, N. H., Mokhtar, N. Z. N., Ali, E. R. A. E., & Mohammed, M. O. (2022). Islamic social finance and sustainable development goals: issues and challenges. Journal of Islamic Finance, 11(2), 56–67.

Rusanti, E., & Anwar, Moh. M. (2025). Unlocking Zakat compliance: extending the theory of planned behavior with trust in Zakat institutions as a moderator. Journal of Islamic Accounting and Business Research. https://doi.org/http://dx.doi.org/10.1108/JIABR-11-2024-0455

Sadeq, A. M. (2002). Waqf, perpetual charity and poverty alleviation. International Journal of Social Economics, 29(1/2), 135–151.

Sanusi, S., Saedon, R., Muhammad, A. D., Zaki, H. O., & Ghazali, A. W. (2025). Cash waqf engagement among Malaysian millennials: the digitization of generosity. International Journal of Islamic and Middle Eastern Finance and Management, 18(4), 857–875. https://doi.org/10.1108/IMEFM-03-2024-0148

Shofiatin, N., Supriani, I., Al-Kilani, A. R., & Widiyanti, D. R. (2025). Analysis of waqf studies: a hybrid review. International Journal of Ethics and Systems. https://doi.org/http://dx.doi.org/10.1108/IJOES-11-2024-0378

Sinaga, A. A. P., & Sitorus, S. A. (2023). Economics , Management and Sustainability The role of micro , small and medium enterprises (MSMEs) towards community welfare in Medan City. Economics, Management and Sustainability, 8(2), 44–52. https://doi.org/10.14254/jems.2023.8-2.4

Singh, R., Kumar, K., Khan, S., & Sharma, A. (2025). An Empirical Examination of Factors Influencing Adoption of Innovation for Sustainable Economy: Evidence From MSMEs' Perspective. In Innovation Ecosystems and Sustainable Technologies: Enhancing Competitiveness and Sustainability. https://doi.org/https://doi-org.ezproxy.ugm.ac.id/10.1108/978-1-83662-368-720251013

Sukmana, R. (2020). Critical assessment of Islamic endowment funds (Waqf) literature: lesson for government and future directions. Heliyon, 6(10). https://doi.org/https://doi.org/10.1016/j.heliyon.2020.e05074

Suri, T., & Jack, W. (2016). The long-run poverty and gender impacts of mobile money. Science, 354(6317), 1288–1292.

Tambunan, T. T. H. (2009). SMEs in Asian developing countries. Springer.

Tambunan, T. T. H., & Sikumbang, R. (2011). Perekonomian Indonesia: kajian teoretis dan analisis empiris. Ghalia Indonesia.

Todaro, M. P., & Smith, S. C. (2009). Economic development. Pearson education.

Tran, K. T., & Tran, M. N. (2025). Does government effectiveness reduce the carbon-emitting effect of urbanization? A worldwide study. Management of Environmental Quality, September, 1–20. https://doi.org/10.1108/MEQ-10-2024-0450

Tulcanaza-Prieto, A. B., Cortez-Ordoñez, A., Rivera, J., & Lee, C. W. (2025). Is Digital Literacy a Moderator Variable in the Relationship Between Financial Literacy , Financial Inclusion , and Financial Well-Being in the Ecuadorian Context ? Sustainability, 1–26.

Ul-durar, S., Iqbal, M., Naveed, S., & Massacci, A. (2025). Research in International Business and Finance Sustainable financial inclusion through social progress and regularity quality interaction – Implication for least developed countries. Research in International Business and Finance, 76(February), 102811. https://doi.org/10.1016/j.ribaf.2025.102811

United Nations Development Programme. (2025). Human Development Index (HDI). HDRO Newsletter. https://hdr.undp.org/data-center/human-development-index#/indicies/HDI

Vasantha, N. R., Bossman, A., & Iqbal, N. (2025). Empowering energy access : the influence of Islamic banking and Fintech on sustainable energy in MENA. International Journal of Islamic and Middle Eastern Finance and Management. https://doi.org/10.1108/IMEFM-01-2025-0019

Wooldridge, J. M. (2003). Cluster-Sample Methods in Applied Econometrics. American Economic Review, 93(2), 133–138. https://doi.org/10.1257/000282803321946930

Wooldridge, J. M. (2010). Econometric analysis of cross section and panel data. MIT press.

World Bank. (2022). Poverty and Shared Prosperity 2022. https://www.worldbank.org/en/publication/poverty-and-shared-prosperity

World Bank. (2025). Indonesia Economic Prospects (IEP). World Bank Group.

World Population Review. (2025). Muslim Population by Country 2025. https://worldpopulationreview.com/country-rankings/muslim-population-by-country

Zeni, N. A. M., Kadir, M. R. A., & Sapuan, N. M. (2021). The Role of Governance in Analysing Waqf Performance. Sustainable Finance, Digitalization and the Role of Technology, 283–303. https://doi.org/https://doi.org/10.1007/978-3-031-08084-5_23