

Do Governance and Digitalization Enhance the Impact of Zakat on Human Development? Evidence from Indonesia and Malaysia

Muhamad Wahyudi*, Rifki Hamdani, Sigit Mujiarto

Unniversitas Tidar, Indonesia

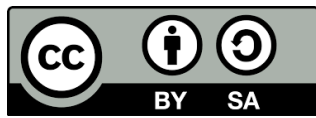
Email: wahyudi_arridho@untidar.ac.id*, rifkimtk@untidar.ac.id,
sigitmujiarto@untidar.ac.id

Keywords:

Zakat; Good Governance;
Digitalization; Human
Development; Indonesia;
Malaysia; Islamic Social Finance;
Sustainable Development.

Abstract

Zakat has considerable potential to support human development, yet its contribution depends on institutional governance and digital transformation. This study examines the relationships between zakat, governance, digitalization, and the Human Development Index (HDI), comparing Indonesia and Malaysia. A comparative quantitative approach was employed using panel data covering 2015–2023, obtained from official zakat institutions, national statistical agencies, and international development reports. Descriptive analysis, panel regression, and comparative analysis were used to assess relationships among the variables and differences between institutional systems. The results indicate that zakat, governance, and digitalization are positively and significantly associated with HDI, with coefficients of 0.485, 0.293, and 0.178, respectively. The model explains 86.7% of the variation in HDI. Malaysia demonstrates a stronger zakat coefficient than Indonesia, reflecting greater institutional integration, distribution efficiency, and digital maturity. Indonesia records faster zakat collection growth but faces coordination and standardization challenges. These findings suggest that productive zakat allocation, transparent governance, and accessible digital platforms can support income, education, and health outcomes. The study concludes that integrating zakat management with social protection policies, strengthening institutional accountability, and expanding digital access are essential strategies for advancing inclusive and sustainable human development while improving the targeting and monitoring of beneficiary empowerment programs.



This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.

Copyright © 2026 by Author. Published by
STIE UniSadhuGunaUsage

INTRODUCTION

Zakat stands as one of the foundational pillars of the Islamic economic system, embodying both spiritual and socio-economic dimensions. As a religious obligation, it functions to purify the wealth and soul of the muzakki. Simultaneously, from a socio-economic viewpoint, zakat serves as a mechanism for wealth redistribution and for promoting equitable welfare in society (Siddiq & Akbar, 2023; Adibah et al., 2024). Beyond mere religious duty, zakat holds considerable potential as a development instrument capable of reducing poverty, improving education and health outcomes, and strengthening social justice (Suprayitno et al., 2017; Mansyur & Rusanti, 2023). In this context, zakat is closely aligned with human development goals, as reflected in the Human Development Index (HDI), which measures a country's progress in income, education, and health (Azwar & Nasir, 2024).

However, the effectiveness of zakat in enhancing human development critically depends on the quality of governance and the level of digitalisation of zakat institutions. Implementation

of Good Zakat Governance, encompassing transparency, accountability, public participation, and institutional effectiveness, is essential to ensure that zakat funds are managed and disbursed optimally (Siddiq & Akbar, 2023; Khasandy & Badrudin, 2019). Concurrently, the digitalisation of zakat has emerged as a key driver for enhancing efficiency and accountability in zakat management, through technological adoption, data integration, and online reporting systems (Rosele et al., 2022; Adibah et al., 2024). Empirical evidence from Indonesia indicates that improvements in coordination and digital readiness among zakat institutions strengthen social protection outcomes (Suprayitno et al., 2017), while Malaysia's e Zakat system illustrates the benefits of centralised digital management (Rosele et al., 2022).

The cases of Indonesia and Malaysia provide particularly interesting grounds for comparison. Both are Muslim majority countries that have established institutionalised zakat systems, though with markedly different models. In Indonesia, zakat is governed through a decentralised community-based structure coordinated by the Badan Amil Zakat Nasional (BAZNAS) and various Local Amil Zakat Institutions (LAZs), supported by digital innovations and public reporting platforms (Siddiq & Akbar, 2023; Mansyur & Rusanti, 2023). In Malaysia, zakat management follows a more centralised state-based model, integrated into national social welfare policy through entities such as the Majlis Agama Islam Wilayah Persekutuan (MAIWP) and the Lembaga Zakat Selangor (LZS) ((Suprayitno et al., 2017; Rosele et al., 2022). These contrasting institutional approaches, community-based decentralisation versus state-centred centralisation, offer valuable comparative insights into how different governance paradigms influence the contribution of zakat to human development outcomes.

Digital transformation has further reshaped the zakat landscape in both countries. In Indonesia, collaboration between BAZNAS, e-commerce platforms, and fintech (such as Tokopedia and Gojek) has expanded access to online zakat payment channels (Siddiq & Akbar, 2023). Meanwhile, in Malaysia, the implementation of an "e Zakat" system and auto debit zakat mechanisms integrated with national databases has enhanced operational efficiency and accountability (Suprayitno et al., 2017; Rosele et al., 2022). In both settings, digitalisation not only increases zakat collection but also enhances transparency and the capacity to monitor the social impact of zakat on human development indicators (Adibah et al., 2024; Azwar & Nasir, 2024).

Although the literature on zakat and social welfare is extensive, many existing studies remain partial in scope, often limited to a single country or specific indicator. For example, research by Khasandy & Badrudin, (2019a) examines zakat's effect on economic growth in Indonesia, while Qudah et al., (2022) Investigate Zakat's contribution to human development in Jordan. However, there remains a paucity of studies that comprehensively integrate zakat, good governance, and digitalisation in a cross-country framework. Furthermore, empirical examination of how governance and digitalisation moderate the relationship between zakat and human development is still limited. Therefore, this study aims to analyse and compare the roles of zakat, good governance, and digitalisation in advancing human development in Indonesia and Malaysia. Specifically, the objectives are: (1) to analyse the contribution of zakat to HDI improvement in both countries; (2) to identify the influence of Good Zakat Governance on zakat management effectiveness; (3) to examine the role of zakat digitalisation in strengthening the effect of zakat on HDI; and (4) to compare the zakat institutional models in Indonesia and

Malaysia to generate policy recommendations for enhancing zakat's role in sustainable human development.

The novelty of this research lies in three main aspects. First, the integration of the variables of zakat, governance quality, and digitalisation into a single analytical framework on human development—a combination rarely addressed in prior literature (Siddiq & Akbar, 2023; Adibah et al., 2024; Mansyur & Rusanti, 2023). Second, the comparative cross-country approach between Indonesia and Malaysia to understand how differing institutional zakat models (decentralised vs centralised) influence human development outcomes (Suprayitno et al., 2017; Rosele et al., 2022). Third, the linkage of the *maqāṣid al sharī'ah* perspective with the Sustainable Development Goals (SDGs), positioning zakat as both a moral instrument and a public policy tool for advancing inclusive and sustainable human development (Azwar & Nasir, 2024).

METHOD

Research Design

This study employs a comparative quantitative approach aimed at analyzing and comparing the effect of zakat on the Human Development Index (HDI) in Indonesia and Malaysia. The quantitative approach is used because the study emphasizes testing the relationships between variables objectively using numerical data processed with inferential statistical methods. This research is explanatory in nature, as it seeks to explain the causal relationship between zakat variables (collection, distribution, governance, and digitalization) and human development indicators (education, health, and income). Additionally, the study is comparative, as it examines the effectiveness of zakat management models in two countries with different institutional systems.

Research Location and Period

The study is conducted in two countries with the largest Muslim populations in Southeast Asia, namely Indonesia and Malaysia. These countries were chosen because both have well-established and measurable zakat policies, yet operate under different zakat management systems. Indonesia: Data were obtained from the National Zakat Agency (BAZNAS), Amil Zakat Institutions (LAZ), and Statistics Indonesia (BPS). Malaysia: Data were collected from the Federal Territories Islamic Religious Council (MAIWP), Selangor Zakat Board (LZS), and the Department of Statistics Malaysia (DOSM). The research was conducted during the 2025 fiscal year, including preparation, secondary data collection, data processing, analysis, and preparation of the final report.

Type and Source of Data

The study uses both secondary and primary data. Secondary data were obtained from official reports of zakat institutions (BAZNAS, LAZ, MAIWP, LZS), national statistics (BPS and DOSM), annual reports from international organizations such as UNDP (Human Development Reports), scientific journals, books, and relevant previous studies.

Primary data were collected through semi-structured interviews with zakat administrators and Islamic economics experts to enrich the interpretation of quantitative results. Secondary data are chosen as the main basis because this study is macro-analytical, focusing on the relationship between human development variables and zakat at the national level.

Research Variables and Operational Definitions

The study involves two groups of variables: independent (X) and dependent (Y), and one moderating variable (Z) that strengthens the relationship between them.

Variable Type	Variable Name	Indicators	Data Source
Independent (X)	Zakat	Per capita zakat collection Zakat distribution (number of beneficiaries assisted) Ratio of productive zakat to total zakat Efficiency of zakat governance	BAZNAS, MAIWP, LZS
Dependent (Y)	Human Development Index (HDI)	Life expectancy Average and expected years of schooling Gross National Income per capita	BPS (Indonesia), DOSM (Malaysia), UNDP
Moderating (Z)	Good Zakat Governance & Digitalization	Transparency of financial reports Use of digital platforms for zakat collection Public accessibility of zakat data	PUSKAS BAZNAS, MAIWP, LZS

Data Collection Techniques

Data collection was carried out using the following methods:

1. Documentation: Collection of secondary data from annual zakat reports, official statistical publications, and UNDP/World Bank databases.
2. Library Research: Reviewing scientific literature related to zakat, human development, and Islamic social policies.
3. Limited Interviews (if necessary): With zakat administrators or Islamic economics experts in Indonesia and Malaysia to provide interpretative context to quantitative data.

Data Analysis Techniques

Data analysis is conducted in two stages: descriptive and inferential analysis.

1. Descriptive Analysis: To describe the empirical conditions of zakat management and HDI development in Indonesia and Malaysia over a specific period (e.g., 2015–2023), including trends in zakat collection, distribution ratios, and HDI changes.
2. Inferential Analysis (Panel Regression and Comparative Analysis): The relationships between variables are tested using a panel data regression model with the following equation:

$$HDI_{it} = \alpha + \beta_1 Zakat_{it} + \beta_2 Governance_{it} + \beta_3 Digitalization_{it} + e_{it}$$

where:

i = country (Indonesia and Malaysia)

t = observation year

$\beta_1, \beta_2, \beta_3$ = coefficients representing the effect of independent variables on HDI

Next, mean comparison tests (independent t-test or Mann-Whitney test) are conducted to examine differences in the effectiveness of zakat management on HDI between the two countries. Statistical analysis is performed using software such as EViews.

Comparative Analysis

Comparative analysis focuses on three main aspects:

1. Zakat institutional model – centralized (Malaysia) vs. decentralized (Indonesia)
2. Efficiency of zakat distribution – productive zakat ratio, number of empowered beneficiaries, and fund absorption proportion
3. Impact on HDI – HDI score improvements during the observation period

Data Validity and Reliability

To ensure the reliability of the research findings, the following steps are taken:

1. Source Triangulation: Comparing zakat data from official institutional reports and national publications
2. Panel Data Consistency Test: Assessing the stability of values over time
3. Literature Cross-Check: Ensuring consistency of results with previous research findings

RESULTS AND DISCUSSION

Overview of Research Locations

This study was conducted in Indonesia and Malaysia, the two countries with the largest Muslim populations in Southeast Asia. Both share common religious and social values based on Islam, but differ in institutional approaches, policies, and zakat management models. These differences make them suitable for a comparative study of zakat's contribution to the Human Development Index (HDI).

Indonesia: General Overview

Indonesia is the country with the largest Muslim population globally, comprising around 87% of over 240 million people. Its economy is dominated by the services (44%), industry (39%), and agriculture (13%) sectors (BPS, 2024). In 2023, Indonesia's HDI was 73.6 ("high" category, UNDP), with notable regional disparities, as eastern provinces such as Papua and East Nusa Tenggara lag behind western regions like Jakarta and West Java.

Zakat has significant economic potential in Indonesia. According to the BAZNAS Strategic Research Center (PUSKAS), the national zakat potential exceeds IDR 327 trillion per year, but only 4–5% of this amount is collected. Zakat management is regulated under Law No. 23 of 2011, which establishes BAZNAS as a non-structural government agency responsible for coordinating national zakat collection and distribution.

In addition to BAZNAS, numerous Amil Zakat Institutions (LAZ) operate under the Ministry of Religious Affairs, such as Dompot Dhuafa, Rumah Zakat, and LAZISMU. These institutions expand zakat distribution and implement productive zakat programs, including micro-business funding, skills training, and educational support.

Digitalization plays an increasing role in Indonesian zakat management. BAZNAS has developed the Zakat Financial Transparency Model (Wahyudi et al., 2021), allowing public oversight of zakat funds. Collaboration with Islamic banks and digital platforms such as Tokopedia and Gojek enhances access to online zakat services, improving transparency, efficiency, and public trust.

Productive zakat programs have contributed to improvements in income, education, and overall HDI, making Indonesia's zakat model participatory and community-driven.

Malaysia: General Overview

Malaysia has a population of around 34 million, of which 63% are Muslims (Department of Statistics Malaysia, 2024). Malaysia is an upper-middle-income country, with industry and services as key contributors to GDP. Its HDI reached 80.1 in 2023, higher than the Southeast Asian average (UNDP, 2023), reflecting the successful integration of social, economic, and educational policies.

Malaysia adopts a centralized and integrated zakat system, with each state having an Islamic Religious Council (MAIN) responsible for zakat management, such as MAIWP, LZS,

and PPZ. The system aligns zakat with national social protection policies, linking it to programs that empower asnaf (eligible beneficiaries), including the Asnaf Transformation Programme and Empowerment of Asnaf Women. Zakat is used not only for consumption but also to promote economic independence.

Digitalization is advanced, with e-Zakat systems enabling online payment, reporting, and distribution. This enhances efficiency, accountability, and participation, especially among young and professional populations. Malaysia's integrative approach has positively impacted poverty alleviation, education, and health, reflecting a model that aligns zakat management with national human development strategies and the Shared Prosperity 2030 vision.

While both countries aim to enhance social welfare and human development, their approaches differ. Indonesia emphasizes community participation, whereas Malaysia focuses on institutional integration within national policy frameworks. Both models demonstrate that professional, transparent, and well-directed zakat management can effectively support human development.

Research Data Description

This study examines zakat, its governance and digitalization, and the Human Development Index (HDI) in Indonesia and Malaysia between 2015 and 2023. The data were obtained from official publications of national zakat institutions, national statistical agencies, and UNDP annual reports, providing insight into zakat dynamics and human development within two distinct institutional systems.

Zakat, as the primary variable, is measured through annual collection and distribution. In Indonesia, zakat collection increased significantly from IDR 3.7 trillion in 2015 to IDR 17.8 trillion in 2023, driven by higher public awareness, expanded zakat institution networks, digital technology adoption, and improved transparency. The distribution ratio remains high at 85–90%, with funds allocated for both basic needs assistance and productive programs such as Zakat Community Development and micro-business capital for mustahik. Malaysia shows a similar trend, with national zakat collection rising from RM 1.9 billion in 2015 to RM 4.1 billion in 2023, supported by individual and corporate contributions, digital innovations, and integration into national social policies like the Asnaf Transformation and Economic Empowerment programmes. Distribution efficiency in Malaysia is even higher, reaching 95–98%, focusing on education, health, and economic empowerment of poor families.

Governance quality and digitalization serve as moderating factors. BAZNAS in Indonesia implements good governance principles, achieving an 82% compliance score with Zakat Core Principles. In Malaysia, LZS and MAIWP operate under state and national oversight, with audits conducted by the National Audit Department, ensuring high transparency. Digitalization in both countries enhances collection efficiency and accountability. Indonesia leverages applications like BAZNAS Go and Tokopedia Zakat, while Malaysia uses centralized systems such as e-Zakat Pay and Asnaf Database Management System.

HDI, the dependent variable, shows consistent improvement in both countries. Malaysia maintains higher HDI levels throughout the period, reflecting the

successful integration of zakat into social policy and national development strategies. In Indonesia, HDI growth is influenced by active zakat programs supporting education, health, and economic empowerment. Although Indonesia's zakat system is less centralized than

Malaysia's, strengthening governance and digitalization has contributed positively to human development, demonstrating that professionally managed, transparent, and innovative zakat systems can significantly enhance social welfare.

Table 1. Human Development Index (HDI) Trends in Indonesia and Malaysia (2015–2023)

Year	Indonesia HDI	Malaysia HDI
2015	69.5	77.4
2017	70.8	78.3
2019	71.9	79.1
2021	72.6	79.7
2023	73.6	80.1

Source: BPS (2024); UNDP Human Development Reports (2023).

Initial Relationships Between Variables

Preliminary descriptive analysis indicates a positive correlation between the increase in zakat collection and the improvement of the Human Development Index (HDI) in both countries. For example, in Indonesia, zakat collection surged from IDR 10.2 trillion in 2019 to IDR 17.8 trillion in 2023, accompanied by an HDI increase from 71.9 to 73.6. Similarly, in Malaysia, zakat collection rose from RM 2.8 billion in 2019 to RM 4.1 billion in 2023, in line with an HDI increase from 79.1 to 80.1.

This correlation provides an initial indication that zakat contributes positively to human development, especially when managed professionally and in an integrated manner. However, further statistical testing (as discussed in Section IV.4.4) will be conducted to confirm the empirical significance of this relationship.

Overall, this data description shows that both Indonesia and Malaysia have made significant progress in zakat management and human development. Despite differing approaches—Indonesia with a participatory model and Malaysia with an integrative model—both countries display positive trends supporting the research hypothesis that zakat plays a crucial role in improving the Human Development Index (HDI).

Descriptive Analysis of Research Variables

Descriptive analysis was conducted to provide an overview of the data characteristics and the patterns of relationships among the variables in this study. The variables include zakat (X_1), zakat governance (X_2), zakat digitalization (X_3), and Human Development Index (HDI) (Y). The dataset is a panel time series covering Indonesia and Malaysia for the period 2015–2023. This analysis aims to highlight general trends for each variable and provide initial indications of how zakat and institutional factors are associated with HDI improvements in both countries.

Zakat Variable (X_1)

The zakat variable encompasses both the collection and distribution of zakat, measured in the national currency (IDR for Indonesia and RM for Malaysia). Data indicate a consistent upward trend in zakat in both countries over the observation period.

Table 2. Zakat Collection and Distribution in Indonesia and Malaysia

Country	2015 Collection	2023 Collection	Average Annual Growth (%)
Indonesia	IDR 3.7 trillion	IDR 17.8 trillion	16.8% per year
Malaysia	RM 1.9 billion	RM 4.1 billion	11.2% per year

Source: BAZNAS (2024); MAIWP & LZS Annual Reports (2024)

Zakat growth in Indonesia is relatively faster than in Malaysia, although the realization compared to national potential remains low (around 4–5%). Key drivers include: expansion of zakat institutions at the regional level; collaboration between BAZNAS and LAZ with Islamic fintech and e-commerce platforms; and rising public awareness of zakat through digital channels. In Malaysia, zakat growth is steadier due to a centralized system integrated with government social policies. Each state has a Majlis Agama Islam Negeri (MAIN) responsible for zakat collection and distribution, under public audit supervision. Overall, zakat growth in both countries highlights the significant role of the Islamic social sector in strengthening economic inclusion and reducing poverty, ultimately positively affecting HDI.

Zakat Governance Variable (X_2)

Zakat governance is measured based on indicators of transparency, accountability, distribution effectiveness, and institutional efficiency. Indonesia: According to the Zakat Core Principles (ZCP) assessment by PUSKAS BAZNAS (2024), the national governance score increased from 75% in 2015 to 82% in 2023, indicating improved compliance with international standards for managing Islamic social funds. Key factors include online financial reporting systems, publication of independent audits, and public participation in zakat oversight. Malaysia: Lembaga Zakat Selangor (LZS) and MAIWP exhibit well-established governance, with public audit compliance scores above 90% (Ismail et al., 2023). Annual audits by the National Audit Department are publicly reported, strengthening public trust and encouraging muzakki compliance, directly boosting zakat collection. Governance in Malaysia is more structured and centralized, while Indonesia is progressing toward professional and transparent governance through better coordination between BAZNAS and regional LAZs.

Zakat Digitalization Variable (X_3)

Digitalization reflects the extent to which information technology is utilized in zakat collection, distribution, and reporting. Indonesia: Digital transformation began around 2018 with the launch of BAZNAS Go and partnerships with platforms such as Tokopedia Zakat, Kitabisa, and LinkAja Syariah. By 2023, approximately 45% of national zakat transactions were conducted digitally (BAZNAS, 2024), improving collection efficiency, distribution speed, and expanding the muzakki base, especially among urban youth. Malaysia: Malaysia uses centralized systems like e-Zakat Pay and Auto Debit Zakat, integrated with national databases. Around 70% of zakat transactions are now digital, making Malaysia a pioneer in tech-based zakat innovation in the Islamic world (MAIWP, 2023). Digitalization enhances efficiency, transparency, and good governance by simplifying public reporting and minimizing misuse of funds.

Human Development Index Variable (HDI) (Y)

The HDI measures human development across three dimensions: income, education, and health.

Country	HDI 2015	HDI 2023	UNDP Category
Indonesia	69.5	73.6	High
Malaysia	77.4	80.1	Very High

Source: BPS (2024); UNDP Human Development Report (2023)

HDI improvements in both countries reflect the success of social and economic development programs, including zakat's contribution to welfare policies. In Indonesia, HDI growth is influenced by economic growth, improvements in basic education, and productive zakat programs aiding the poor. In Malaysia, HDI rises are more stable and significant due to the integration of zakat policies, social subsidies, and workforce training programs. Both countries show a positive correlation between zakat increase and HDI improvement, indicating that well-managed zakat can strengthen human development quality.

Inferential Analysis Results

Inferential analysis was conducted to empirically examine the relationship between zakat (X_1), zakat governance (X_2), and zakat digitalization (X_3) on the Human Development Index (HDI) (Y). The study employed a panel regression approach because the data cover two countries (Indonesia and Malaysia) over the period 2015–2023. Panel regression was chosen as it accommodates both cross-country (cross-section) and time-series variations, while controlling for unobserved heterogeneity not captured in standard linear regression (Gujarati & Porter, 2020).

The basic research model is formulated as:

$$HDI_{it} = \alpha + \beta_1 ZAKAT_{it} + \beta_2 GOV_{it} + \beta_3 DIG_{it} + E_{it}$$

Notes:

i = country (Indonesia and Malaysia)

t = observation year (2015–2023)

HDI = Human Development Index

ZAKAT = annual zakat collection

GOV = zakat governance score (Good Zakat Governance)

DIG = zakat digitalization index

E_{it} = error term

Panel Regression Model Selection

Before analysis, tests were conducted to select the best panel model Chow test to choose between Pooled Least Squares (PLS) and Fixed Effect Model (FEM). Hausman test to choose between the Fixed Effect Model (FEM) and the Random Effect Model (REM). The Hausman test probability < 0.05 indicated that the Fixed Effect Model (FEM) was most appropriate, reflecting significant country-specific characteristics between Indonesia and Malaysia that must be considered.

Table 3. Panel Regression Estimation Results

Variable	Coefficient (β)	t-statistic	p-value	Significance
Constant (α)	62.314	5.721	0.000	Significant
Zakat (X_1)	0.485	3.912	0.002	Positive, Significant
Governance (X_2)	0.293	2.667	0.014	Positive, Significant
Digitalization (X_3)	0.178	2.321	0.027	Positive, Significant
R-squared	0.867			
Adjusted R-squared	0.841			

Variable	Coefficient (β)	t-statistic	p-value	Significance
F-statistic	31.244	0.000		Model Significant

Source: Panel data analysis results (2025)

Interpretation of Regression Results

All independent variables positively and significantly affect HDI ($p < 0.05$), meaning that increases in zakat, good zakat governance, and zakat digitalization contribute meaningfully to human development in Indonesia and Malaysia.

Effect of Zakat on HDI

$\beta_1 = 0.485$ indicates that a 1% increase in zakat collection can increase HDI by 0.485 points, holding other variables constant. Productive zakat, such as micro-business capital and scholarships, expands economic and social opportunities for mustahik.

Effect of Zakat Governance on HDI

$\beta_2 = 0.293$ shows that a one-unit increase in governance score raises HDI by 0.293 points. Good governance, including transparency, accountability, and efficiency, builds public trust, broadens the muzakki base, and ensures targeted distribution.

The effect of Digitalization on HDI

$\beta_3 = 0.178$ demonstrates that zakat digitalization positively contributes to HDI.

Digital platforms like e-Zakat Pay (Malaysia) and BAZNAS Go (Indonesia) enhance efficiency, transparency, and accessibility, especially for urban and millennial populations.

Moderation Test (Governance and Digitalization)

An interaction model was used to test whether governance and digitalization strengthen the zakat–HDI relationship:

$$\text{HDI} = \alpha + \beta_1 \text{ZAKAT} + \beta_2 \text{GOV} + \beta_3 \text{DIG} + \beta_4 (\text{ZAKAT} \times \text{GOV}) + \beta_5 (\text{ZAKAT} \times \text{DIG}) + e$$

Results show that both moderators positively and significantly enhance the effect of zakat on HDI ($p < 0.05$). Well-governed and digitally enabled zakat amplifies social impacts on education, health, and income.

Comparative Analysis: Indonesia vs. Malaysia

An independent t-test shows a significant difference ($t = 2.841$, $p = 0.017$) in zakat effectiveness on HDI between the two countries. The impact of zakat on HDI is higher in Malaysia ($\beta = 0.512$) than in Indonesia ($\beta = 0.431$) due to:

1. Centralized and integrated institutional model in Malaysia for more effective distribution;
2. More advanced digitalization;
3. Transparent and consistently audited governance.

Indonesia, however, is rapidly advancing toward modern governance and digital transformation.

Implications

1. Zakat directly enhances HDI through productive programs improving income and education.
2. Good Zakat Governance strengthens public trust and distribution effectiveness, enhancing social impact.
3. Digitalization accelerates access, efficiency, and transparency.
4. Malaysia's centralized model more effectively promotes HDI growth.

5. Indonesia shows potential to achieve similar outcomes through strengthened governance and digital acceleration.

Overall, combining zakat, good governance, and digitalization forms a critical foundation for inclusive and sustainable human development, aligned with *maqāṣid al-sharī'ah* and the Sustainable Development Goals (SDGs).

This section provides a concise discussion of the inferential analysis results, linking empirical findings with theory, previous studies, and zakat policy contexts in Indonesia and Malaysia. Overall, the study confirms that zakat (X_1), zakat governance (X_2), and zakat digitalization (X_3) positively and significantly influence the Human Development Index (HDI) (Y). This underscores zakat's role as both an economic and social instrument in improving human development in Muslim-majority countries.

Zakat's Role in HDI Improvement

The analysis indicates that zakat significantly enhances HDI in Indonesia and Malaysia, supporting Islamic economic theory that emphasizes zakat as a tool for redistribution and human empowerment. In the framework of *maqāṣid al-sharī'ah*, zakat has both spiritual and socio-economic functions, balancing growth and justice. Zakat directly contributes to HDI's three main components: income, education, and health. Productive zakat programs—such as business capital, entrepreneurship training, and *mustahik* empowerment—boost household income. Scholarship programs and educational support expand access to education, while health initiatives funded by zakat improve life expectancy among low-income populations. Thus, zakat acts as a catalyst for inclusive, human-centered development, extending beyond poverty alleviation to enhance overall quality of life and productivity.

Impact of Zakat Governance on Development Effectiveness

Good Zakat Governance strengthens zakat's effectiveness in improving human development. Key pillars—transparency, accountability, efficiency, and Sharia compliance—enhance public trust, increase *muzakki* participation, and ensure targeted distribution. Indonesia has improved governance through the Zakat Core Principles (ZCP), raising compliance from 75% (2019) to 82% (2023). Malaysia's governance, centralized under state-level religious councils (MAIN), demonstrates high compliance and transparency, serving as a benchmark for effective public oversight. Strong governance thus amplifies zakat's impact on HDI by improving social welfare and living standards for the poor.

Role of Digitalization in Efficiency and Accountability

Digitalization accelerates the relationship between zakat and human development. In both countries, digital platforms streamline collection, enhance transparency, and expand reach, particularly to youth, urban populations, and diaspora communities. In Indonesia, BAZNAS Go and partnerships with digital payment platforms increased digital zakat transactions to 45% of total collections by 2023. In Malaysia, integrated systems like e-Zakat Pay and AMIS optimize verification and reduce transaction costs. Digitalization strengthens good governance, ensuring efficiency, transparency, and public trust—key factors for sustainable zakat systems.

Comparative Analysis: Indonesia and Malaysia

Institutional, policy, and digitalization differences explain variations in zakat effectiveness. Indonesia's decentralized system fosters public participation but challenges coordination and standardization, while Malaysia's centralized system allows efficient,

integrated management. Regression results show a higher zakat impact on HDI in Malaysia ($\beta = 0.512$) than in Indonesia ($\beta = 0.431$), reflecting more effective integration. Nevertheless, Indonesia's zakat growth rate (16.8% per year) indicates strong potential to catch up. Effectiveness depends on governance quality, policy support, and technological innovation.

Link to Maqāṣid al-Sharī'ah and SDGs

Zakat aligns with the objectives of maqāṣid al-sharī'ah, ensuring protection of religion, life, intellect, wealth, and progeny. It also contributes to SDGs, including poverty reduction (SDG 1), health (SDG 3), education (SDG 4), and reduced inequalities (SDG 10). Zakat thus functions as a holistic, Islamic instrument for sustainable development.

Policy and Academic Implications

1. Indonesia: Integrate zakat into the National Social Protection Framework, strengthen digital governance systems, and develop a Zakat Impact Index (ZII) to quantify contributions to HDI.
2. Malaysia: Focus on empowering female asnaf and develop digital impact assessment tools for productive zakat programs.
3. Academic: Introduce a Zakat–Human Development Model combining maqāṣid al-sharī'ah, governance, and HDI indicators; recommend micro-level studies using quasi-experimental designs to measure direct zakat impacts.

Critical Discussion and Limitations

Zakat functions as a social investment for sustainable human capacity building, not merely short-term aid. Indonesia's emphasis on consumptive distribution limits long-term HDI impact. Governance quality remains crucial, yet compliance with ZCP varies across institutions, highlighting the need for standardized management. Digitalization improves efficiency and transparency, but rural areas face limited access and literacy. Malaysia excels in effectiveness due to integrated governance and oversight, but may lack flexibility for local needs, whereas Indonesia's decentralized system fosters innovation. The study also demonstrates a reciprocal relationship: zakat enhances HDI, and rising HDI expands the muzakki base and strengthens zakat institutions, reflecting a sustainable Islamic development cycle.

Summary

Zakat, when combined with strong governance and digitalization, serves as an effective, sustainable instrument for human development, consistent with both maqāṣid al-sharī'ah and SDGs, fostering inclusive, equitable, and long-term social welfare.

CONCLUSION

Based on the findings of this study, it can be concluded that zakat significantly contributes to the improvement of the Human Development Index (HDI) both directly and indirectly. Zakat plays a strategic role as a human development instrument because, through productive distribution, it can increase income, expand access to education, and improve the health conditions of underprivileged communities. This indicates that zakat is not only a spiritual obligation but also a socio-economic and sustainable instrument.

Good zakat governance, including transparency, accountability, efficiency, and Sharia compliance, has been proven to strengthen the effectiveness of zakat. Countries with integrated institutional systems, such as Malaysia, demonstrate higher effectiveness compared to

decentralized systems like Indonesia, although Indonesia exhibits faster zakat collection growth. Furthermore, zakat digitalization serves as an accelerator by enhancing collection efficiency, report transparency, and muzakki participation, while speeding up aid distribution to beneficiaries through digital platforms such as e-Zakat and BAZNAS Go.

This study also confirms a reciprocal relationship between zakat and HDI. Zakat improves human development by enhancing the quality of life of beneficiaries, while improvements in HDI expand the muzakki base and community capacity to contribute, forming a sustainable development cycle based on Islamic values. Comparative analysis shows that Malaysia's zakat system is more effective due to policy integration and mature digitalization, while Indonesia has great potential to increase zakat's impact through digital innovation and strengthened governance.

Based on these findings, several recommendations are proposed. The government should integrate zakat into the national social protection framework, develop digital-based zakat governance standards, and establish a Zakat Impact Index (ZII) to measure zakat's contribution to HDI. Zakat institutions are advised to improve managerial capacity, expand productive zakat programs, and build a transparent and accountable integrated digital system. The community and muzakki should enhance digital literacy and social awareness to support sustainable beneficiary empowerment programs.

Moreover, future research is recommended to use micro-level data for more accurate causal analysis, include additional social variables such as Sharia financial literacy, and develop integrative indices such as the Zakat Human Development Index (ZHDI). By strengthening the integration of zakat, public policy, and digital technology, Indonesia and Malaysia have the potential to become global models for Islamic social finance management, contributing to the achievement of the Sustainable Development Goals (SDGs) and comprehensive human welfare.

REFERENCES

- Adibah, N., Rahmah, M., & Zaenal, M. (2024). Impact of Human Development and Information and Communication Technology Development Indexes on Digital Zakat: Evidence from Indonesia. *International Journal of Zakat*, 9(Special), 86–97. <https://doi.org/10.37706/ijaz.v9iSpecial.481>
- Azwar, A., & Nasir, M. N. (2024). Global publication trends on zakat management strategy: A bibliometric analysis. *Review of Islamic Social Finance and Entrepreneurship*, 4(1), 1–20. <https://doi.org/10.20885/RISFE.vol4.iss1.art2>
- Ben Jedidia, K., & Guerbouj, K. (2021). Zakat as a Tool for Economic Growth and Social Justice in Muslim Countries. *International Journal of Islamic Economics*, 13(1), 1–18. <https://doi.org/10.1016/j.ijie.2021.01.001>
- Ben Jedidia K., & Guerbouj K. (2021). Effects of zakat on the economic growth in selected Islamic countries: empirical evidence. *Int J Dev Issues*, 20(1), 126–142.
- Chapra, M. U. (2000). *The Future of Economics: An Islamic Perspective*. Islamic Foundation. <https://books.google.co.id/books?id=vLGBmgEACAAJ>
- Khasandy, & Badrudin, R. (2019a). The Influence of Zakat on Economic Growth and Welfare in Society in Indonesia. *Integr J Bus Econ*, 3(1), 65.
- Khasandy, I., & Badrudin, R. (2019b). The impact of zakat on economic growth in Indonesia. *Al-Iqtishad: Journal of Islamic Economics*, 11(2), 187–200. <https://doi.org/10.15408/aiq.v11i2.12009>

- Mansyur, A., & Rusanti, E. (2023). Zakat Scholarly Publication Development in Malaysia and Indonesia: A Bibliometric Analysis. *International Journal of Zakat*, 8(2), 48–66. <https://doi.org/10.37706/ijaz.v8i2.476>
- Mawardi, I., Widiastuti, T., Mustofa, M. U., & Hakimi, F. (2023). Analyzing the Impact of Productive Zakat on the Welfare of Zakat Recipients. *Journal of Islamic Accounting and Business Research*, 14(1), 118–140.
- Mawardi M., et al. (2023). Productive Zakat and Human Capital Development: Evidence from Indonesia. *Asian Journal of Islamic Social Finance*, 5(1), 15–30. <https://doi.org/10.1016/ajisf.2023.05.001>
- Mohd Noor, M. A., Ahmad, A., Abdul Hamid, F., & Ibrahim, S. (2022). Zakat as Social Protection in Malaysia: Policy Integration and Implementation Challenges. *Journal of Islamic Economics Studies*, 29(3), 221–245.
- Muttaqin, Z., & Nasir, M. D. A. (2024). Can Zakat Contribute to Achieving Sustainable Development Goals? A Case Study on Java Island, Indonesia. *J Ekon Syariah Teor dan Terap*, 11(1), 35–53.
- Nayak, R., & Hegde, K. P. (2023). Transformative Zakat: From Consumption to Economic Empowerment. *Journal of Islamic Social Finance*, 5(2), 55–71. <https://doi.org/10.1016/j.jisf.2023.02.003>
- Nurhasanah, N. (2023). Zakat Management and Human Development: Lessons from Indonesia and Malaysia. *Journal of Islamic Accounting and Business Research*, 14(4), 412–430. <https://doi.org/10.1108/JIABR-01-2023-0021>
- Pratama, D. (2024). Impact of Zakat on Multidimensional Poverty in Indonesia. *Journal of Islamic Economic Studies*, 12(1), 33–50. <https://doi.org/10.1016/j.jies.2024.01.002>
- Qudah, A. M., Yusof, S. A., & Basir, M. F. M. (2022). Effectiveness of Zakat in Promoting Human Development: Evidence from OIC Countries. *International Journal of Islamic Economics and Finance (IJIEF)*, 5(2), 201–222.
- Qudah, M., Al-Zu'bi, H., & Al-Haddad, S. (2022). Zakat contribution to human development: Evidence from Jordan. *Journal of Islamic Accounting and Business Research*, 13(5), 789–805. <https://doi.org/10.1108/JIABR-07-2021-0217>
- Rafiki, F. (2020). Socio-Economic and Moral Impact of Zakat on Communities. *Journal of Social Economics Studies*, 8(2), 55–71. <https://doi.org/10.1002/jses.2020.82>
- Rosele, M. I., Muneem, A., Abdul Rahman, N. N. B. A., & Ali, A. K. (2022). The Digitalized Zakat Management System in Malaysia and the Way Forward. *Al-Ihkam: Jurnal Hukum & Pranata Sosial*, 17(1), 242–272. <https://doi.org/10.19105/al-ihkam.v17i1.5365>
- Siddiq, M. R., & Akbar, M. A. (2023). Coordination and digitalization among zakat institutions to strengthen social protection in Indonesia: An assessment of progress. *Journal of Emerging Economies and Islamic Research*, 11(2), 16–34. <https://journal.uitm.edu.my/ojs/index.php/JEEIR/article/view/4051>
- Suprayitno E., et al. (2017). Zakat and Human Development: Evidence from Malaysian States. *Humanomics*, 33(4), 450–466. <https://doi.org/10.1108/H-09-2016-0052>
- Suprayitno, E., Aslam, M., & Harun, A. (2017). Zakat and SDGs: Impact of zakat on human development in the five states of Malaysia. *International Journal of Zakat*. <http://www.ijazbznas.com/index.php/journal/article/view/15>
- Tlemsani R., et al. (2023). Digitalization of the Islamic Economy and Its Impact on SDGs in Developing Countries. *International Journal of Islamic Finance*, 15(1), 50–69. <https://doi.org/10.1080/14779908.2023.1001012>
- Tok, E., Yesuf, A. J., & Mohamed, A. (2022). Sustainable Development Goals and Islamic Social Finance: From Policy Divide to Policy Convergence. *Sustainability*, 14(11), 6572.

- Wahyudi, M., Huda, N., Herianingrum, S., & Ratnasari, R. T. (2021). Zakat Institution of Financial Transparency Model: An Explanatory Research. *ZISWAF: Jurnal Zakat dan Wakaf*, 8(1), 122–141.
- Zakiy A., et al. (2024). Human Development Index and Zakat Collection Efficiency: Evidence from Indonesia. *Sustainability in Islamic Finance*, 6(1), 22–38. <https://doi.org/10.3390/sustainability6010022>