Human Development Index from the Islamic Perspective: Roles of Taxation, *Zakah*, and Health and Education Expenditures

(*Indeks Pembangunan Manusia dari Perspektif Islam: Peranan Percukaian, Zakat dan Perbelanjaan Kesihatan dan Pendidikan*)

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ABSTRACT

This study analyzes the relationship between taxation, zakah, and health and education expenditure, and the Islamic Human Development Index (I-HDI). It further examines the relationship between these factors and the Human Development Index (HDI). We calculate I-HDI based on maqāṣid al-sharī'ah theory by combining material and non-material aspects and then compare it with HDI. The indicators used in the I-HDI calculation are based on the objectives that reflect a comprehensive human development. Employing the dynamic panel regression two-step Generalized Method of Moments on data from 34 provinces in Indonesia, this study finds a significant difference between the results of the HDI and I-HDI analyses. This study reveals that economic growth, health expenditure, and zakah improve HDI and I-HDI. Although educational expenditure improves I-HDI, it also has a negative effect on HDI. This research suggests that when formulating budget policies, the government should focus not only on material elements but also on non-material elements that are reflected in the I-HDI model.

Keywords: Islamic human development; taxation; health expenditure; education expenditure; zakah; human development index

ABSTRAK

Kajian ini menganalisis hubungan antara percukaian, zakat, dan perbelanjaan kesihatan dan pendidikan, dan Indeks Pembangunan Insan Islam (I-HDI). Ia seterusnya mengkaji hubungan antara faktor-faktor ini dengan Indeks Pembangunan Manusia (HDI). Kami mengira I-HDI berdasarkan teori maqāṣid al-sharī'ah dengan menggabungkan aspek material dan bukan material dan kemudian membandingkannya dengan HDI. Petunjuk yang digunakan dalam pengiraan I-HDI adalah berdasarkan objektif yang mencerminkan pembangunan insan yang menyeluruh. Menggunakan kaedah regresi panel dinamik dua langkah terhadap data dari 34 wilayah di Indonesia, kajian ini mendapati perbezaan yang signifikan antara keputusan analisis HDI dan I-HDI. Kajian ini mendedahkan bahawa pertumbuhan ekonomi, perbelanjaan kesihatan, dan zakat meningkatkan HDI dan I-HDI. Walaupun perbelanjaan pendidikan meningkatkan I-HDI, ia juga mempunyai kesan negatif terhadap HDI. Kajian ini mencadangkan bahawa semasa menggubal dasar belanjawan, kerajaan harus memberi tumpuan bukan sahaja kepada elemen material tetapi juga elemen bukan material yang dicerminkan dalam model I-HDI.

Kata kunci: Pembangunan insan Islam; percukaian; perbelanjaan kesihatan; perbelanjaan pendidikan; zakat; indeks pembangunan manusia

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INTRODUCTION

Development is a multifaceted process that considers shifts in all aspects of society, culture, and governance. Economic development refers to efforts to shift the standard of living in an economy from one based on modest growth and low wages to one based on innovation and high wages. Human development aims to enhance people's living conditions, that is, the ability to obtain a healthier, educated, and prosperous quality of life. One indicator of human development can be measured by the increasing number of companies, higher levels of education, and ever-developing technology. The Human

Development Index (HDI) is a concept that explains the condition of each resident based on the results of human development achievements, as measured by three basic approach dimensions: average age or longevity, level of health, knowledge or level of education, and a decent standard of living (Rahim et al. 2022). According to Anto (2020), the development of human welfare levels in Indonesia uses HDI, which only measures material well-being and ignores the non-material side; therefore, HDI cannot be a comprehensive measure of human development. Therefore, many studies have criticized HDI in terms of its theory and conceptual applications. The Islamic Human Development Index (I-HDI) measures the achievement of the level of human welfare so that basic human needs are met to be able to live happily in this world and the hereafter, namely, achieving happiness.

According to Imam Al-Syatibi, the basic *maslahah* for human life consists of five elements: religion, soul, intellect, lineage, and property. These five dimensions are basic human needs; if these needs cannot be met or are unbalanced, human welfare will not be achieved perfectly (Hasbi 2021). The I-HDI can be used as a measuring tool for Islamic human development, especially in countries where the majority of the population is Muslim, such as Indonesia. The emergence of the I-HDI concept can determine whether the Islamic religion influences a country's human development and economic growth. Based on this theory, the richer a country, the higher the welfare of its people, and the easier the realization of human development. The United Nations Development Program (UNDP) bases the three dimensions of human development on the concept of human capabilities. The UNDP recognizes that the HDI is not a perfect indicator of progress toward a better life for everyone. The HDI is an evolving index of human development, and moreover, it cannot perfectly capture human development. Therefore, many studies have criticized its concepts and indicators for finding more complex concepts and dimensions to provide an overview of human development (Jin et al. 2020). The UNDP realizes that the HDI has shortcomings in measuring human development. Sengayi et al. (2020) proposed a modified HDI model by increasing the dimensions of work and political freedom. Human development is explained in this study by three factors: the human ability to choose a quality of life, career opportunities, and ability to earn a high income. The purpose of this index is to complement the deficiencies of the HDI indicator to be a modified measure or concept that is more representative of human development.

TABLE 1. History of the Human Development Index (HDI)

Year	Human Development Index
1990	• Component Index = (maximum-actual)/(maximum-minimum) • HDI = 1 - an average of component indices • Ranked from worst (#1) to best (#130) • Maximum and minimum for the current year • Education Index = adult literacy only • Income Index = $\log_{10}$(PPP GDP/capita); with the average poverty line for nine OECD countries as maximum
1991	• Ranked from best (#1) to worst (#160) • Education Index = adult literacy and mean years of school enrollment • Income Index = Atkinson formula = $y^* + 2(GDP - y^*)^{\frac{1}{2}} + 3(GDP - 2y^*)^{\frac{1}{3}} + \ldots$; threshold y^* is the average poverty line for nine OECD countries
1994	• Component Index = (actual-min)/(max-min) • HDI = average of component indices • Fixed maximum and minimum (LE: 25/85 yrs; LIT: 0%/100%; ENR: 0%/100%; Y: $200/$40,000)
1995	• Education Index = adult literacy and combined gross school enrollment • Income minimum changed to $100
1999	• Income Index = natural log (PPP GDP/capita) up to $40,000

Source: United Nations Development Programme (UNDP), 1990 - 2000

According to the UNDP, economic growth impacts a country's ability to promote sustainable human development (Viana 2022). Human resource expansion is a key contributor to economic growth. The Gross Domestic Product (GDP) is a measure of economic activity. In economic terms, GDP is the sum of all the profits made by a country's businesses. Almost all countries measure economic growth using GDP to determine the conditions of human development using the national structure. Human development goals can be achieved by improving population health. Health is defined as the physical, mental, social, and spiritual maintenance of everyone for active participation in community activities. As health is the main factor for people's welfare, it must be the main concern of the government, as the provider of public services. The government can guarantee people's right to health by providing fair, equitable, adequate, affordable, and high-quality health services. This is highly dependent on fiscal health policies (Mounsey et al. 2020). Jedidia et al. (2021) stated that there is a positive relationship between human development and *zakah*. In this context, when the distribution of *zakah* is maximized, it can improve human development. *Zakah* is an alternative instrument for human development; currently used in several countries, such as Pakistan and Bangladesh, but is ignored by development organizations, even though it has an enormous potential to improve the quality of human resources.

In general, the concept of *maqāṣid al-sharīʿah* aims to protect religion, soul, mind, lineage, and wealth and preserve a healthy environment (Al-Ghazali 1993). The purpose of this research is to analyze and examine the relationship between macroeconomics and *zakah* on the HDI and I-HDI using the *maqāṣid al-sharīʿah* theory approach. The researchers then tested and compared the results of the HDI and I-HDI calculations. Indonesia, with 34 provinces, was chosen as the object

of this study for several reasons. First, Indonesia has the largest number of Muslims in the world. Second, of the 34 provinces that were the object of the research, there was a significant disparity in welfare caused by the country's vast area; therefore, development was not evenly distributed.

LITERATURE REVIEW

HUMAN DEVELOPMENT INDEX

HDI uses various fundamental aspects of the quality of life to measure human development. HDI is calculated based on data that can describe the three components; it is equivalent to the geometric mean of the three normalized indices. First, life expectancy assesses the length of life in years an average person who has reached age x, given society's current death rate. Life expectancy is one measure used to assess the government's performance in enhancing the health and well-being of the population. Two types of data were used to measure life expectancy: children born alive (ALH) and children still alive (AMH). Factors that can affect life expectancy include food patterns, living environment, and good nutrition. The healthiest indicators were those related to life expectancy at birth. Second, the educational dimension was measured using the average number of years a person spends in school after turning 25 as well as the estimated number of years a child spends in school. Finally, gross national income per person is used to measure the standard of living (Larasati et al. 2021).

HDI generates great interest in policy making and academic circles worldwide. The index was originally compiled by prominent Pakistani economist Mahbub Ulhaq in collaboration with Amartya Sen and other scholars in response to their dissatisfaction with GDP as the standard measure of development (Doran & Kinchin 2020).

FIGURE 1. Indicators and dimensions of the Human Development Index
Source: United Nations Development Programme (UNDP) 2016

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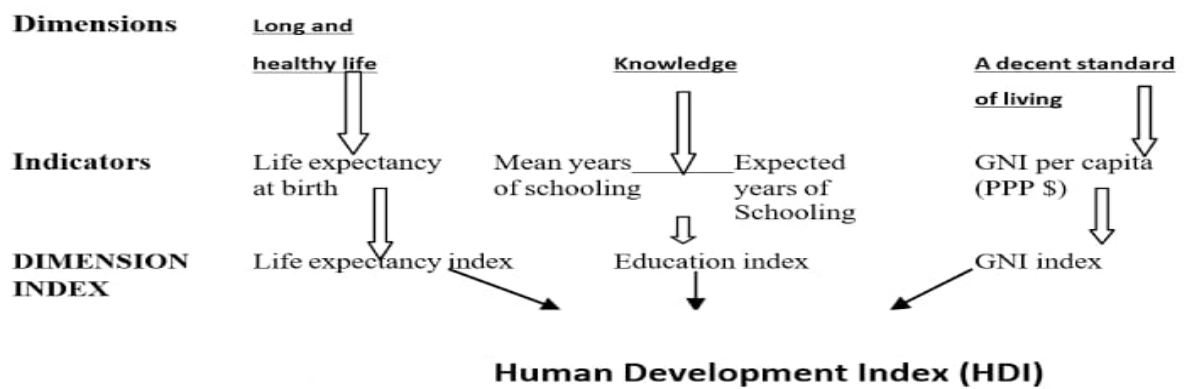
ISLAMIC HUMAN DEVELOPMENT INDEX

I-HDI is a conceptual framework that can be used to create a measurable index for all dimensions of human development achievement according to *maqāṣid al-Sharīʿah*. The results of the research by Rama and Yusuf (2020) on I-HDI explain that HDI cannot capture the religious and ethical perspectives of socioeconomic development in Islamic countries. Islamic countries have various cultures and values that cannot be fully accommodated by the HDI measurements. The I-HDI as a holistic and comprehensive human development index is adopted from the five dimensions of *maqāṣid al-sharīʿah*. Both material and spiritual progress are valued in Islamic thought. Islam affirms the significance of both physical and immaterial factors–morality and ethics–for well-rounded individuals. According to Ikhwan et al. (2020), life and property security, personal freedom, access to high-quality education, marriage and parenthood, childcare, social cohesion, and low crime rates are widely acknowledged as essential components of long-term prosperity. Islamic concepts value both material and immaterial (ethical) progress. Islam acknowledges the importance of the physical and spiritual aspects of morality, ethics, and faith. Ikhwan et al. (2020) view human life as divided into two stages: temporary life is life while in the world, and the afterlife is permanent and eternal life. Therefore, we can define human contentment as a function of both early and later life prosperity using the symbol (W).
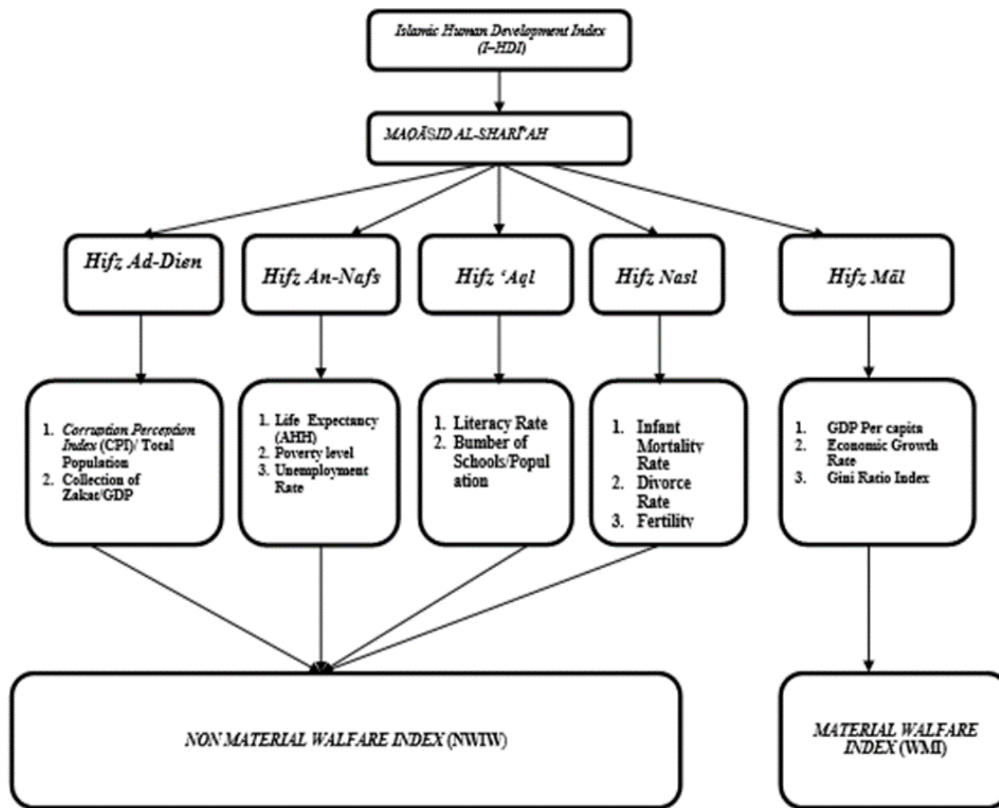
FIGURE 2. Conceptual model of islamic human development index

Maqāṣid al-sharīʿah is an instrument used to determine the conformity of the way of life of Muslims with the values of Islamic law, which cover all aspects of life, consisting of social, political, economic, spiritual, environmental, and universal human arrangement aspects. On the one hand, *maqāṣid al-sharīʿah* connects the spirit and philosophy of sharia, while on the other hand, it is connected with the social, economic, historical, political, and environmental context of the society in general. It also serves as a tool to measure the conformity of changes to the universal goals, principles, and values of *shariah* (Sueb et al. 2022). According to Akmal et al. (2021), *maqāṣid al-sharīʿah* is a bridge that can connect text and context, goals and means, goals and methodology, and Islamic law and Islamic goals universally as a means for actualization. The theory of *maqāṣid al-sharīʿah* has developed gradually over several centuries, as documented in books on *usul fiqh* and Islamic legal theory. Imam Syafi'i as the originator of the science of *ushul fiqh* discusses the purpose of *sharīʿah* orders such as *zakah*, *waqf*, and the importance of maintaining the five needs that are characteristic of the science of *maqāṣid al-sharīʿah*.

Worship benefits can be experienced in this world and the hereafter *(ma'qul)*, whereas there are wisdom, benefits, and rewards of worship that can only be reaped in the hereafter *(gayr ma'qul al-ma'na)*. The five *maqāṣid al-sharī'ah* concepts are not final formulations. Islamic scholars always conduct new interpretations and reconstructions while adapting the timeless principles of *maqāṣid al-shari'ah*. The main objective of *maqashid al-shari'ah* is to realize the benefit of mankind, both in this world and the hereafter, which is the mission of Islam, *rahmatan li al-Alamin* (Ishak 2020). The framework model used in this study is depicted in Figure 5. The model was developed to test the variables of economic growth, fiscal policy, and *zakah* in the comparison of HDI and I-HDI. The *maqāṣid al-sharīʿah* approach was used to create the concept of Islamic human development from two aspects of welfare: material and non-material. Material wellbeing indicators include the need for assets and environmental needs. Non-material welfare indicators include the continuity of education, continuity of lineage, and maintaining religion (Anto 2013). The formula for I-HDI is based on material welfare (MWI) and non-material welfare (NMW), which can be calculated using the following equation:

$$WH = f (MW, NW) \qquad (2.3)$$
$$MW = f (PO, DE) \qquad (2.4)$$
$$NW = f (IEV) \qquad (2.5)$$
$$IEV = (LE, EFSR, R) \qquad (2.6)$$

where:
WH= Holistic Welfare

MW = Material Welfare
NW = Non-Material Welfare
PO = Property Ownership
DE = Distributional Equity
IEV = Islamic Environment and Values
LE = Life Expectancy
E = Education
F = Family and Social Relationship
R = Religiosity

Based on formula no 2.3, it can be seen that holistic welfare (WH) in Islam comprises material welfare (MW) and non-material welfare (NW). Material welfare, based on formula 2.4, can be influenced by individual property ownership (PO) and distribution of opinions (DE). Meanwhile, non-material welfare based on Formula no 2.5, is influenced by Islamic values (IEV) consisting of health (LE), education (E), family or heredity (FSR), and religion (R), as seen in formula no 2.6.

TAXATION, *ZAKAH*, AND HEALTH AND EDUCATION EXPENDITURES

According to Chowdhury et al. (2020), five important factors must be considered not only individually but collectively to achieve prosperity. First, training and job vacancies are provided. Second, fair wage schemes for employees should be ensured. Third, affordable insurance for work-related accidents and other benefits should be arranged. Fourth, individuals with mental and physical problems should be assisted to enable them enjoy a normal life. Fifth, collecting *zakah, infaq*, and *sadaqah* funds through laws, tax regulations, and other regulations. The State Expenditure Budget (APBN) and district/city Regional Revenue and Expenditure Budget (APBD) documents outline the amount of funds the government will spend each year. Fiscal policies seek to promote economic growth by maintaining price and output stability. Government steps that increase or decrease tax levies are referred to as fiscal policies. Changes in the amount and composition of taxes and government spending affect aggregate demand factors, including the level of economic activity, patterns of distribution of resources, and distribution of income (Hlasny et al. 2022).

Health budget allocation is the value of government expenditure in meeting all forms of physical needs of the community. If the state determines the policies used to buy goods and services in the health sector, then state spending reflects the costs incurred by the government in carrying out the specified program. States have a priority policy for allocating state spending; thus, the resulting outputs also differ. State spending allocation to the healthcare sector has a causal relationship with human development (Miranda et al. 2023).

The health sector is concerned with the physical well-being of human beings, as well as their mental well-being, which enables them to engage in productive activities. A country's education sector forms the basis for creating a better life. The education sector is a fundamental factor in shaping quality human capabilities that enable implementing a financial commitment to education through policies that encourage increased productivity. The state is responsible for realizing the improvement of the human condition through better educational opportunities and resources. Government spending on education is a tangible way of improving human resource development (Dzigbede 2020).

ZAKAH INSTITUTION

The arrangements established to ensure that the intended outcomes for stakeholders are defined and achieved constitute one of the definitions of governance. With *zakah* organizations, governance is the system that ensures *zakah* is collected and distributed fairly and responsibly. Only a few academic studies have addressed the topic of governance within the framework of *zakah* institutions and its relation to other factors. One study explored the connection between leadership and productivity in Indonesia's *zakah* and established that *zakah* institutions benefit from good management practices. The found a positive correlation between governance and productivity (Samar 2021).

The management of ZISWAF in Indonesia is currently regulated by the *zakah* management law and is carried out by BAZNAS and LAZ through the Amil *Zakah* Organization (LAZ) and the Muslim community. Human development is closely related to *zakah* on the Islamic side. In this context, the distribution of *zakah* must be maximized. *Zakah* is currently an alternative means of human development. In Islam, individual wealth is also considered collectively and must be given and distributed fairly to ensure greater wealth distribution and meeting the needs of people who are below the poverty line. The Islamic microfinance model offers two integrated institutional models: *zakah*, *infaq,* and alms and Islamic microfinance institutions. Integrated institutions can use combined funding sources from *zakah*, *infaq*, and alms funds as well as commercial funding sources. Using a pool of funding sources, each institution can provide commercial and social services for the poor, who have low- and middle-level incomes. Commercial microfinance services offer a variety of financial services, such as savings products, funding schemes, and fee-based financial products to economically poor middle-income individuals. The hope is that commercial financing can enable them to increase their income to a higher level (Arwani 2020).

In Islam, *zakah* funds are used to provide social security. Instruments of social security in Islam include *zakah*, which is a funding tradition, are simultaneously used as instruments of poverty eradication. Islamic social security financing schemes, apart from *zakah*, can be considered from other Muslim assets such as endowments, *infaq*, alms, *ghanimah*, *fa'i*,

kharaj, land rent, and *mal mustafad* (useful assets). The use of *zakah* for constructive purposes is more significant because its benefits are enjoyed indefinitely, thereby effective in reducing poverty. If the basic needs of the *ummah* are addressed, *zakah* funds can be used by productive businesses in dealing with poor families and improve the quality of the *ummah* economy (Raies, 2020).

METHODOLOGY

To determine the relationship between I-HDI, HDI, macroeconomics, and *zakah*. This study uses a panel regression model. Panel regression is one of the most effective techniques that provides more informative data, less collinearity between variables, and more degrees of freedom and efficiency. This study uses company data disclosed in annual reports published between 2016 and 2022. Data were obtained from the BPS, Ministry of Finance, BI, and BAZNAS website. GMM is used to estimate the model and is one of the most flexible and dynamic methods that provides consistent results in the presence of different endogenous sources.

The system generalized method of moment (SYS-GMM), proposed by Banerjee et al. (2020) addresses possible endogeneity, which is important in panel data regression. Specifically, we opt for the more efficient two-step SYS-GMM over the one-step version. The former metric is employed to identify second-order autocorrelation, whereas the latter is utilized to verify the reliability of the instrumental variables. The estimation model used in this study adopts the research model conducted by (Blundell & Bond, 2000). The regression model in this study is as follows:

$$\text{I-HDI}_{it} = \beta_0 + \beta_1 \text{ L.I-HDI}_{it} + \beta_2 \text{ PDRB}_{it} + \beta_3 \text{ EDUC}_{it} + \beta_4 \text{ HEALTH}_{it} + \beta_5 \text{ ZAKAH}_{it} + \beta6 \text{ DMG}_{it} + e_{it} \quad (1)$$

$$\text{HDI}_{it} = \beta_0 + \beta_1 \text{ L.HDI}_{it} + \beta_2 \text{ PDRB}_{it} + \beta_3 \text{ EDUC}_{it} + \beta_4 \text{ HEALTH}_{it} + \beta_5 \text{ ZAKAH}_{it} + \beta6 \text{ DMG}_{it} + e_{it} \quad (2)$$

where I-HDI = using the *maqāṣid al-sharīʿah* size
HDI = adopted from UNDP measurements
PDRB = GDP per capita growth percentage
EDUC = APBN education spending budget
HEALTH = APBN health spending budget
Zakah = *muzakki zakah* funds, BAZNAS
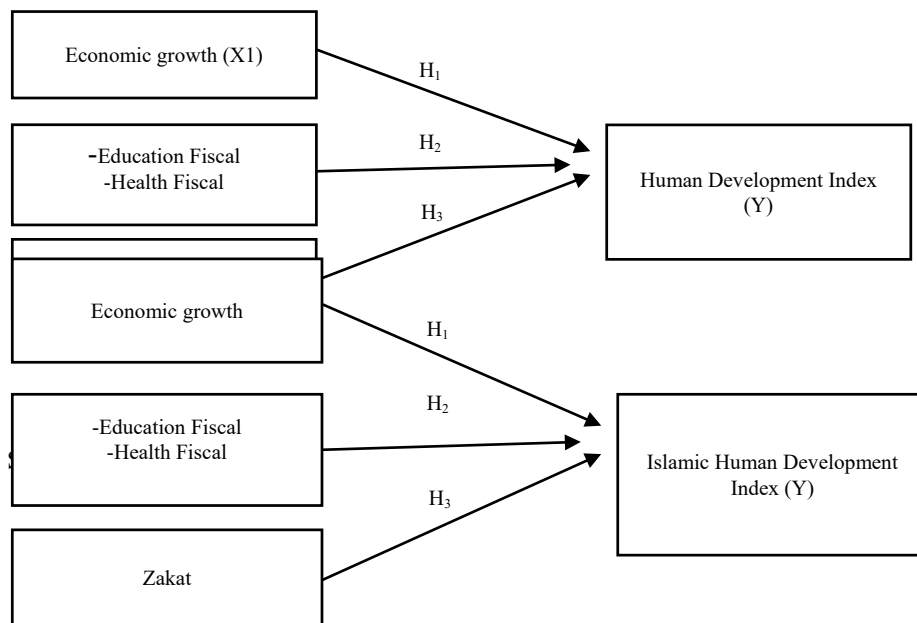DMG = demography as a control variable using a measure of the number of productive population.

FIGURE 3. Research conceptual framework

RESULTS AND DISCUSSION

RESULTS AND COMPARISON OF HDI AND I-HDI

Table 2 compares the HDI published by BPS (Central Statistics Agency) for 2018–2021 with the I-HDI scores and rankings for each province in Indonesia. It is generally accepted that the I-HDI and HDI ratings are significantly different. The provinces of DKI Jakarta, West Java, East Java, and North Sumatra have the highest I-HDIs from 2016 to 2021. Central and western areas were most likely to have an intermediate I-HDI.

TABLE 2. Results of comparison of HDI-HDI scores

Provence	I-HDI		HDI	
	Index	Rank	Index	Rank
DKI Jakarta	96	1	81.11	1
West Java	88	2	72.45	9
East Java	86	3	72.14	12
North Sumatra	83	4	72.00	13
South Sumatra	72	5	70.24	21
Central Java	67	6	72.16	11
South Sulawesi	66	7	70.24	22
DI. Yogyakarta	65	8	80.22	2
Jambi	65	9	71.63	17
East Kalimantan	61	10	76.88	3
Aceh	61	11	72.18	10
Riau	59	12	72.94	6
North Sulawesi	56	13	72.00	14
Lampung	56	14	69.90	23
West Sumatra	56	15	72.65	8
Southeast Sulawesi	53	16	69.79	24
Bengkulu	52	17	71.64	16
South Kalimantan	52	18	71.28	18
Bali	51	19	75.69	5
West Sulawesi	51	20	66.36	31
Central Sulawesi	51	21	69.79	25
West Kalimantan	50	22	67.90	30
Gorontalo	50	23	69.00	27
North Kalimantan	50	24	71.19	19
West Nusa Tenggara	48	25	68.65	29
Banten	47	26	72.72	7
Island Riau	47	27	75.79	4
Central Kalimantan	46	28	71.05	20
Island Bangka Belitung	44	29	71.69	15
East Nusa Tenggara	43	30	65.28	32
Maluku	41	31	69.71	26
West Papua	41	32	65.26	34
North Maluku	39	33	68.76	28
Papua	21	34	60.62	33

Source: Calculated by author

Observations from 2016 to 2021 DKI Jakarta, East Java, North Sumatra, and West Java are the two provinces that have the highest results in the calculation of the Islamic Human Development Index. The high or low index is not dominated by regions in the western or central regions of Indonesia. Especially for the middle ranking, almost all the western and central regions are included in the middle I-HDI rating. The high and low Islamic Human Development Index is formed from the function of the Material Welfare Index (NW) and the Non-Material Welfare Index (NMW). As for the Indonesian province that has the highest I-HDI rating, there are four provinces, namely DKI Jakarta, West Java, East Java, and North Sumatra, which are significantly ranked at very high I-HDI compared to the results of the HDI calculation.

According to the data, this is because the intellectual dimension plays such a large role in the I-overall HDI rating in all four provinces. The ranking of provinces with very low I-HDI scores is influenced by performance scores in the dimensions of religion and natural wealth and human resources. Interestingly, the position of DKI. Jakarta and West Java remained stable at the top positions in both the HDI and I-HDI indices. The findings of this study confirm that these provinces excel in every dimension. In the context of religious behavior, it shows that the lower level of crime and corruption is DKI. Jakarta also shows higher performance than other provinces. Indices of life expectancy at birth and death in DKI Province. Both poverty and unemployment are low in Jakarta. What is now known as DKI Province. Divorce rates are lower and family stability is higher in Jakarta. West Java, meanwhile, did better in terms of protecting its residents' ability to work and advance in their chosen professions. Compared to other provinces in Indonesia, West Java residents enjoy a higher life expectancy. Province DKI Jakarta is a city that has superior infrastructure, such as health and social services. The HDI rankings for Jakarta and West Java are higher than those of the rest of Indonesia due to their superior performance in the areas of education, health, and income. Several provinces in Indonesia, including Papua, Maluku, Central Sulawesi, and Banten, have low scores on the I-measures HDI of the value of religion, soul, mind, lineage/family, and wealth.

	PP Level		PP First Difference	
	Cons.	Cons. & Trend	Cons.	Cons. & Trend
HDI	-1.7335	-1.6231	-2.5349	-2.5917
	(0.0415)	(0.0523)	(0.0056)	(0.0048)
I-HDI	-4.0383	-5.4238	-5.1866	-7.6525
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
PDRB	-2.4661	-5.7837	-2.1549	-9.0934
	(0.0068)	(0.0000)	(0.0156)	(0.0000)
EDUC	-4.4594	-8.5518	-4.9436	-10.0792
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
HEALTH	-1.2914	0.7935	-1.3472	0.6589
	(0.0983)	(0.7862)	(0.0890)	(0.7450)
ZAKAT	-2.1373	-2.7725	-2.3121	-4.7064
	(0.0163)	(0.0028)	(0.0104)	(0.0000)
DMG	-6.3660	0.4337	-8.1358	-0.9144
	(0.0000)	(0.6677)	(0.0000)	(0.1803)

This table displays the results of the unit root test for stationarity of the data at the level and first difference. The statistical value is the inverse normal (Z) value and the value in brackets is the p-value. The statistical value printed in bold indicates that the data is stationary at the 5% level. The person between the study's variables is displayed in the results of the correlation matrix test. At the 5% level, there is a positive correlation between the HDI and the I-HDI, which measures the same thing from an Islamic perspective. Thus, showing that these two measures capture the same information even though their constructions are very different. Then, EDUC, which measures funding for education, has no statistically significant relationship with I-HDI. However, the values of the dependent-independent variables' and other independent variables' coefficients are below 0.80. This disproves the existence of a multicollinearity relationship in the data used here.

TABLE 4. Estimation of regression HDI and I-HDI

	I-HDI$_{it}$	HDI$_{it}$
L.I-HDI$_{it}$	1.424***	
	(0.132)	
L.HDI$_{it}$		1.004***
		(0.052)
PDRB$_{it}$	0.324	0.143***
	(0.281)	(0.037)
EDUC$_{it}$	0.610**	-0.021*
	(0.294)	(0.011)
HEALTH$_{it}$	1.493	0.211***
	(1.051)	(0.069)
ZAKAT$_{it}$	-0.632**	-0.004
	(0.244)	(0.011)
DMG$_{it}$	-0.169	0.002
	(0.186)	(0.022)
C	-58.383	-5.592
	(35.501)	(5.563)
AR1	-2.383	-2.413
AR2	1.845	0.955
Sargan statistic	3.367	3.649
Hansen statistic	1.923	3.970
AR1 *P-value*	0.017	0.016
AR2 *P-value*	0.065	0.340
Sargan *P-value*	0.948	0.819
Hansen *P-value*	0.993	0.783

This table displays the estimation results of equations (1) and (2) using the GMM system. The independent variables are economic growth as a proxy for GRDP, the natural log of the health budget (HEALTH), the natural log of the education budget (EDUC), and the natural log of the amount of zakat collected (ZAKAT). The PDRB variable is winsorized to clean data from outliers. The control variable is demographic level (DMG). Superscripts ***, **, and * show statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

TABLE 5. Robustness test results

	(1) I-HDI$_{it}$	(2) I-HDI$_{it}$
I-HDI$_{it}$	0.562***	1.041***
	(0.120)	(0.022)
PDRB$_{it}$	1.932**	0.179
	(0.916)	(0.131)
EDUC$_{it}$	-0.168	0.241**
	(0.548)	(0.103)
HEALTH$_{it}$	9.350**	1.735***
	(3.464)	(0.316)
ZAKAT$_{it}$	0.611*	-0.138
	(0.322)	(0.102)
DMG$_{it}$	0.120	0.145*
	(0.193)	(0.078)
C	-255.919**	-60.326***
	(97.279)	(13.086)
Obs.	79	91
N Prov.	27	33
AR1 stat.	-2.145	-2.172
AR1 p-value	0.032	0.030
AR2 stat.	0.047	1.446
AR2 p-value	0.962	0.148
Sargan stat.	2.356	27.688
Sargan p-value	0.671	0.273
Hansen stat.	1.215	21.386
Hansen p-value	0.876	0.616

This table presents the regression results based on a sample with two models namely (1) 1-HDI and (2) HDI Superscript ***, **, and * show statistical significance at the level of 0.01, 0.05, and 0 respectively, 10.

In this section, the study describes the results of the robustness test on all variables by adding control variables. This test aims to find out and strengthen the research results. This research divides the sample based on the Gross Regional Domestic Product (GRDP) level. The category of a province with a high GRDP is a province with a GRDP value above the median for each province each year, and vice versa for a low GRDP. Table 4.9 in equation (1) shows the coefficient value of the relationship between GRDP and I-HDI is positive and statistically significant for provinces with high GRDP levels. This shows that the influence of GRDP is higher in increasing the Islamic human development index when the province has high economic growth. The same conclusion is also shown on the effect of the health fiscal policy variable on the Islamic human development index. Where the effect is higher for provinces with high GRDP levels.

DISCUSSION

Based on the results of the statistical test of the first hypothesis, economic growth has a positive effect on HDI and I-HDI; thus, hypotheses H1a and H1b can be accepted. The results of this study are supported by Hakim et al. (2021) research, which argues that economic growth can positively influence the level of human development. Likewise, economic growth can positively influence I-HDI in terms of the *al-maal* or wealth index. Possibly, the increase in people's per capita income means that development in an area will increase. The higher the national or regional income, the greater the new production capacity that will absorb labor. High income is reflected in high per-capita income and relatively low unemployment. This condition encourages an equal distribution of per-capita income and increases the human development index. The results of this study are supported by research results by Caravaggio (2020), who showed that an increase in per capita output growth is one of the characteristics of modern economic growth. Increased economic growth in a country can result in changes to consumption patterns in fulfilling people's needs; therefore, high economic growth can provide welfare to the community and increase people's purchasing power.

The statistical test results show that government expenditure in the health sector has a positive and significant effect on the HDI and I-HDI. Thus, hypotheses H2a and H2b were supported. This finding is in line with research conducted by Koyimah et al. (2020), who stated that government spending in the health sector had a positive effect on human development in general. The results of this study are supported by research by Chen et al. (2020) that posited that government spending on health has a positive correlation to human development and is part of the implementation of *maqāṣid al-sharīʿah*, namely the soul and heredity indexes. The life index indicator is measured using life expectancy data because it relates to the importance of maintaining mental health for survival; therefore, there is a close relationship between the life index and the health budget. Meanwhile, the heredity index relates to the importance of maintaining a good generation of quality and quantity.

The 2021 Indonesian Health Profile publication report found that the condition of the health budget could occur due to the factor of increasing health spending that was still not on target, and the amount of the budget was still below 5% of GDP. This means that expenditure allocation for the health function is not a statutory mandate of at least 5% of GDP. In addition,

Indonesia's population continues to increase yearly; however, this condition is not comparable with the amount of spending allocated to the health function, thus more costs are required (Basrowi et al. 2021). According to Mounsey et al. (2020), the government needs to implement specific policies on direct spending as a form of investment in evenly providing facilities to the community, especially in the public services sector, such as the construction of hospital buildings, road repairs, and infrastructure development. The government's role is to determine the health budget, such as the provision of public health service facilities in general. Infrastructure spending advances human development and enables easier access of economic activities to increase people's purchasing power and per capita income of the state (Adegboye et.al. 2022).

Based on the statistical hypothesis test results, government spending in the education sector hurts HDI and has a positive effect on I-HDI. Thus, hypotheses H3a and H3b are accepted and rejected, respectively. The results of this study support the findings of Amir et al. (2022) that government spending in the education sector is the dominant factor determining the increase and progress of human development. This condition can be interpreted that the government's target of budget allocation for human development is not maximally carried out to increase human development in Indonesia. Nawawi et al. (2021) explained that there was no influence on the education budget because the allocation was 20% of the state budget and was not properly realized for education. However, the education budget is predominantly allocated for employee salaries and official government travel expenses. Thus, the annual expenditure budget for education has had no significant influence on human development. The statistical test results of the *zakah* show a positive and significant effect on HDI and I-HDI. Thus, hypotheses H4a and H4b are accepted.

The results of this study are in line with the research by Karuni (2020), where *zakah* is required as a distribution function for channeling funds directly from the assets belonging to the rich to realize human development. *Zakah* has a great potential and statistical value. According to the Islamic economic theory, one of the main factors in the Islamic financial system that can be used for social financing is the distribution of *zakah*. The research results are in line with the attitude toward paying *zakah*. *Zakah* is a religious order that must be obeyed by every Muslim where necessary. Faith influences level of compliance. However, if the payment of *zakah* is required through a formal institution that collects *zakah*, as implemented in several Islamic countries, then *zakah* compliance is now compliant with a formal institution that collects *zakah*. Therefore, the management of *zakah* institutions, collection efficiency, and other factors related to the services provided by *zakah* institutions affect the level of *zakah* compliance. This theory is based on the taxpayer compliance model, which adds several important factors that affect compliance with *zakah* payments (Ashraf & Rauf 2020).

CONCLUSION

The results of the I-HDI calculations based on *maqāṣid al-sharīʿah* were used as a benchmark for achieving overall human development from the material and non-material aspects. The indicators used in the calculation of I-HDI are relevant and in line with the *maqāṣid al-syarīʿah* objectives, enabling an overview of human development results. There are significant differences and large disparities between the results of the HDI and I-HDI calculations, which can be seen from the differences in rating scores in each province of Indonesia. The results of the hypothesis testing show that economic growth, fiscal health policy, and *zakah* have statistically significant effects on HDI and I-HDI. Fiscal education policy has a positive and significant effect on I-HDI, and vice versa; moreover, fiscal education policy affects HDI. This occurred because the government did not optimally implement the targets and strategies for absorbing the education budget. This study updates the indicators used to measure human development achievements, thus contributing to the existing literature. I-HDI is a new concept used to measure Islamic-based human development using the *maqāṣid al-sharīʿah* approach. The policy implication of the findings of this research is that the government can take advantage of the involvement of non-governmental organizations to optimize funding for human development, especially in the health and education sectors, such as the ZISWAF fund, LAZ, and BASNAZ, and maximize its function. A limitation of this study is the unavailability of complete data for the *zakah* variables. Some *zakah* annual reports do not contain the required information. Future research could extend this research by examining the impact of *zakah* on the welfare of *mustahik* in a wider scope, including Islamic countries.

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