

Determinants of human development index and Islamic human development index regency/city of Jambi Province 2016 - 2020

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Abstract

The Human Development Index (HDI) is an indicator to measure the success of development in terms of human resources. However, HDI only looks at the physical/material capabilities (Material Welfare/MW). Therefore, to measure the success of economic development by paying attention to the physical/material side and looking at the non-physical/spiritual side (Non-Material Welfare/NW), an Islamic approach is used, namely the Islamic Human Development Index (IHDI). This study compares HDI and IHDI and the determinants that influence them. The results showed that the HDI in Jambi Province was in the medium category and the IHDI in the low category. The national zakat index (ZZN), religiosity index has a positive effect on HDI, and the poverty depth index has a negative effect, while economic growth has no effect. Furthermore, IHDI in the Regency/City of Jambi Province is positively influenced by the NZI, religiosity index, and poverty index, while economic growth has no effect.

Keywords: Human Development Index; Islamic Human Development Index; Religiosity index; Welfare

1. Introduction

Economic development began to become the attention of economists in the early 1950s. Initially, economic development focused on discussions and problems faced by developing and underdeveloped countries. The science that studies economic development is called Development Economics. As a science, development economics discusses the issues of economic growth and development in countries that have not yet developed or are still in development and developed countries in maintaining the level of the economy achieved.

Development economics has gone through three phases [1]. The first phase is classical development economics. This classical phase began when Adam Smith published *The Wealth of Nation* in 1776 [2]. In this classical period, the economy was believed to increase due to an automatic balance due to market mechanisms. The second phase started after the Second World War and when many Third World countries gained their independence. In this second phase, development economics focuses on analyzing problems related to developing countries. In the second phase, attention shifts from classical liberalism to neo-classical economics. The strategy used is that the economy's dependence on markets is reduced, and part of economic activity is handed over to the role of the government. It was due to the failure of the market in overcoming the economy, resulting in the great depression in 1929. John Maynard Keynes was an economist who was instrumental in the second phase with his book *The General Theory of Employment, Interest, and Money* (1936). The point is that the economy cannot be left entirely to the market. The government must be involved through government spending (G) to influence the economy.

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The third phase is where economic development is based on economic development by submitting everything to the market mechanism as in the classical period (market liberalization). It is because many countries that are developing their economies experience distortions. This is due to the government's large role in the economy so that the economy is hampered in developing. The third phase is also considered as the era of the rise of liberalism and neo-classical economics [1]. Based on these facts, the approaches and strategies used in developing a country's economy are inconsistent, and there is no certainty in development programs in developing countries [3].

The goal to be achieved in the development and economic development in the conventional economy, in general, is to improve the community's welfare in a material sense. The strategies used in economic development, in general, can be categorized into seven categories [3], namely; 1) growth strategy, 2) redistribution strategy, 3) basic needs strategy, 4) growth and equity strategy, 5) agriculture and employment strategy, 6) domestic and export market strategy and 7) strategy to improve the quality of human resources. Strategies 1 to 6 prioritize economic growth, while strategy 7 is a strategy that prioritizes investment in human resources.

In Islamic economics, the goal of economic development is to create and achieve *maqashid Sharia* [4], which consists of maintaining religion (*al-dien*), maintaining the soul (*al nafs*), maintaining reason (*al aql*), maintaining offspring (*al-nasl*), and the attainment of wealth (*al-maal*). In essence, economic development focuses on humans (humans). In 1990 UNDP stated that the success of economic development should be measured by the progress of human resources and the environment before considering further indicators such as economic growth. From many facts, no country is successful in economic development without investing substantially and efficiently in education and public health or investing in human resources.

The Human Development Index (HDI) is an indicator that is widely used to measure the success of human resource development [5]. The Human Development Index is built with a three-dimensional approach that covers health as seen from life expectancy (expectation of life), education (education), and a decent life/purchasing power (purchasing power parity). These three dimensions have comprehensive definitions because they relate to many factors. The Human Development Index as an alternative to measuring the level of success of economic development, especially from the humanitarian side, is not fully compatible and complete to measure economic and human development from an Islamic perspective.

In Islam, the basic goal of living by Islamic Sharia, according to Imam Al Ghazali [1], is the fulfillment of the five basic needs of *maqashid Sharia*, which include religion (*deen*), soul (*nafs*), intellectual ('*aql*'), family and offspring (*nasl*).), and property or material (*maal*). To measure the level of human development in a Muslim-majority country and in accordance with the *maqashid Sharia*, it would be more appropriate to use the Islamic Human Development Index (I-HDI). In the I-HDI calculation [6], the dimensions used as measurements include Material Welfare (MW) and Non-Material Welfare (NW).

The results of the I-HDI calculation describe the five dimensions of *maqashid Sharia*. The religious dimension (*ad-dien*) is calculated from the crime rate. The soul dimension (*an-nafs*) is calculated from the life expectancy. Meanwhile, the intellectual dimension (*al-'aql*) is calculated from the literacy rate and the average length of schooling. The hereditary dimension (*an-nasl*) comes from the total birth rate and infant mortality rate.

The dimension of property (*al-maal*) is seen from the ownership of property by individuals and indicators of the income distribution. For indicators of ownership of assets, the data used is adjusted real per capita expenditure. The Gini and poverty depth indices are used for income distribution indicators.

This study aims to measure and analyze HDI and I-HDI in districts and cities in Jambi Province. In addition, it seeks to examine the effect of economic growth, the National Zakat Index (IZN), religiosity index, and poverty depth index on HDI and IHDI in districts/cities and provinces in Jambi Province.

2. Literature Review

2.1. Basic Concepts and Goals of Economic Development

Development must therefore be conceived of as a multidimensional process involving major changes in social structures, popular attitudes, and national institutions, as well as the acceleration of economic growth, the reduction of inequality, and the eradication of poverty" [2]. Furthermore, according to Djojohadikusumo (1994) "Economic development is a transformation process which with time is marked by structural changes, namely changes in the basis of economic activity as well as in the framework of the economic structure of the community concerned" [7].

Kuznets (1969) defines economic development as the same as growth, "In fact, the usual definition of economic growth is a sustained increase in the nation's total and per capita product and most often accommodated by significant a sustained and rises in population" [8]. The core goals of economic development are self-sufficiency, self-respect, and freedom [2]. The three core developments are directly related to essential human needs [3],[9]. "Sufficiency" is not only for food but includes all things that are basic needs such as housing, health, education, and security.

Islam is a religion of *rahmatan lil'allamin* which means a religion that gives mercy to the universe's contents. Therefore, development based on Islamic law, God willing, can realize prosperity (*falah*) for all creatures in this universe. *Falah* in question is the welfare achieved, including material, spiritual, both individually and socially in this world and in the hereafter [4]. Economic development in the Islamic perspective is material development and involves spiritual, moral and moral development, and must be integrated [10]. Nevertheless, economic development in Islam can still accept various other development concepts, as long as they do not conflict with Islamic *aqidah* and *Sharia*.

The achievement of *falah* is the main goal in Islam, which includes fulfilling physical and spiritual/spiritual needs. Economic development that harmonizes physical and spiritual needs is by the goals of *Sharia* (*maqasid syari'ah*) [1]. Economic development according to Islam can be defined as an effort to realize a comfortable, peaceful, and prosperous life both in this world and in the hereafter for all mankind, namely a life that can meet the spiritual and physical needs of humans, both individually and socially in the world, as well as in the afterlife.

The basic concept of Islamic economic development is based on the Qur'an Surah Ar-Raad verse 11 which means: Verily Allah does not change the condition of a people until they change the situation that is in themselves. And if Allah wills evil for a people, then no one can refuse it; and there is no protector for them but Him." This means if a nation wants to be more advanced both in economy and civilization, they must make improvements and build their economy continuously according to Islamic *Sharia*. Allah will not change their condition for the better, as long as they do not change the causes of their decline.

Choudhury (1998) suggests five main principles in Islamic economics, including in economic development, which includes [11]; 1) Tawhid, as the oneness of Allah SWT. God is the only ultimate goal of human life and death. 2) Work and Productivity (W), Allah has obligated the command to work since the prophet Adam AS until the prophet Muhammad SAW as stated in the Qur'an Surah Jumu'ah verse 10, which means: "When the prayer has been performed, then scatter you on earth; and seek the bounty of Allah and remember Allah much so that you may be successful." 3) Cooperation (C), namely "joint efforts between individuals or community groups to achieve common goals" [12]. 4) Ownership (O) implies that this universe's sole owner is Allah SWT. Humans are only given the mandate to manage it. However, individual ownership is still recognized. 5) Distributional Equity (D), various economic problems in the Islamic economic system have been guaranteed, such as the distribution of wealth by Islamic ethics and *Sharia*, namely through *zakat*, which aims to reduce poverty and open up the expansion of job opportunities and community welfare.

2.2. Human Development Index and Islamic Human Development Index

The Human Development Index (HDI) is a technique for measuring the achievement of human development based on a number of basic components of quality of life. Amartya Sen. HDI developed HDI is useful as a bridge for serious researchers to know things in more detail in viewing economic development results from a humanitarian perspective. In addition, HDI is used to classify whether a country is classified as a developed country, a developing country, or an underdeveloped country and to measure the influence of economic policies on the quality of life and determine the ranking or level of development a region/country. For Indonesia, HDI is strategic data because apart from being a measure of government performance, it is also used as one of the allocators for determining the General Allocation Fund (DAU). HDI categories are; HDI < 60 is categorized as low, 60 HDI < 70 is categorized as moderate, 70 HDI < 80 is categorized as high, and HDI values that reach > 80 are categorized as very high human development [13].

HDI in Indonesia in 2019 was ranked 111 with a value of 0.707. Life expectancy 71.5; expected years of education 12.9; average years of education taken 8.0; and 11,256 per capita income. Even though UNDP has just classified Indonesia as a country with a high HDI [14], it is still lower than the Philippines with a rank of 106, with a per capita income that is far below Indonesia (9,540), then Thailand, which has a score of 0.765; at position 77, and Malaysia at position 61, with a score of 0.804. Indonesia's HDI is still lagging compared to the Philippines, Thailand, and Malaysia due to several factors that are still low. Feriyanto's research (2016) shows that the employment variable has a positive and significant effect on HDI in Indonesia, while economic growth has no impact on Indonesia's HDI. However, PMDN and PMA partially have a significant positive effect on HDI in Indonesia [15].

2.3. Islamic Human Development Index

The Islamic Human Development Index (IHDI) is a “formula used to measure economic development success by prioritizing humans as a benchmark in the Islamic perspective. IHDI measures the achievement of the level of human welfare by fulfilling basic needs so that humans can live happily both materially, spiritually, individually and socially in this world and in the hereafter (achieving *Falah*). According to al-Syatibi (2012), the basic *maslahah* for human life consists of five things (*maqashid Sharia*), namely religion (*ad-dien*), soul (*an-nafs*), reason (*al-'aql*) descent (*an-nasl*), and property (*al-maal*) [16].

The fulfillment of the five basic needs in the *maqashid Sharia*, which is based on Imam al-Syatibi, becomes the theoretical basis for formulating the IHDI. To measure the IHDI, it is necessary to measure the performance dimensions of material welfare (Material Welfare = MW) and non-material welfare (Non-material Welfare = NW). Therefore, the I-HDI as a holistic and comprehensive index is based on the five dimensions of *Maqāṣid al-Sharī'ah* [17], namely; religion (*ad-dien*), life (*an-nafs*), reason (*al-'aql*), family (*an-nasl*), and wealth (*al-māal*).

Using the IHDI model, Rukiah and Siregar 's (2019) research show that IHDI in all provinces in Indonesia is still low, and there are gaps [18]. The role of non-material welfare (Non-Material Welfare) in the formation of IHDI is more dominant than material welfare (Material Welfare). Furthermore, Mustika et al.'s research (2019) states that "the results of statistical test analysis show that three of the four independent variables, namely: economic growth, government spending on education, and government spending on health have a positive and significant influence on IHDI, while zakat, *infaq*, *sadaqah* does not affect IHDI [19].

The research results by Suprayitno et al. (2017) using data for the period 1980 - 2009 also show that zakat has a positive and significant influence on human development in the five states of Malaysia in the short and long term [20]. Therefore, they suggests that zakat can be used as a fiscal policy tool to stimulate human development and economic growth in the long term. The research results by Mustika et al. (2019) concluded that economic growth, the education budget, and the health budget had a positive effect on I-HDI [19].

Salman's (2015) study shows a stark difference between HDI and I-HDI ratings in oil-rich Muslim countries [21]. The I-HDI of these countries has decreased compared to their HDI ratings. Similarly, the IHDI is much worse than the HDI in countries with political unrest. Due to their high debt burden, unemployment rate, and income inequality, some rich countries in Latin America and Europe also have low I-HDI ratings compared to their HDI positions. Overall, the results show that Muslim countries are far behind in fulfilling the ideals of *Maqashid Sharia* and ensuring sustainable development.

3. Methods

The data used in this study is secondary data. The data sources used in this study are socio-economic statistical data from 11 districts/cities in Jambi Province for 2016 – 2020. Some of the data used include:

- Zakat/zakah index per capita
- Life expectancy
- Literacy Rate;
- The average length of schooling
- Total birth rate
- Infant mortality rate
- Real per capita expenditure
- Gini index
- Poverty depth index
- Human development index

The data above is taken from several sources, among others, from official government and private institutions such as:

- Central Bureau of Statistics;
- Regional Development Planning Agency;
- Bank Indonesia;
- National Zakat Amil Agency

To measure the Islamic Human Development Index (I-HDI), material and non-material welfare in this study used the following analytical model

$$I - HDI = 5/6 MI + 1/6 AI$$

$$MI = 2/6 FI + 1/6 (LI + SI + FSI + PI)$$

$$AI = 1/2 (FI + EI)$$

$$MI = \text{actual } n \text{ Mr} - \text{min } n \text{ Mr} \text{ max } n \text{ Mr} - \text{min } n \text{ Mr}$$

$$FI = \text{actual } Fr - \text{min } Fr \text{ max } Fr - \text{min } Fr$$

$$EI = 2/3 (ALI) + 1/3 (GEI)$$

$$PI = \text{Actual } n \text{ Pr} - \text{Min } n \text{ Pr} \text{ Max } n \text{ Pr} - \text{Min } n \text{ Pr}$$

$$ALI = \frac{\text{Actual life expectancy} - \text{Minimum value maximum value} - \text{Minimum value}}{\text{Actual adult literacy} - \text{Minimum value maximum value} - \text{Minimum value}}$$

$$GEI = \text{Actual Gross enrollment} - \text{Minimum value Maximum value} - \text{Minimum value}$$

In Anto's (2009) research, the religiosity index was measured using the Corruption Perception Index (CPI) as a benchmark [6]. Considering that the level of corruption has not fully described the Islamic condition of society, in this study, to measure the Islamic indicators of society, it would be more appropriate to use the actual indicator of zakat. Therefore, in this study, the zakat indicator will be used as a proxy for the religiosity index, namely as follows.

$$\text{Religiosity Index} = \frac{\text{Actual Zakah}}{\text{Expected zakah}}$$

An econometric approach is used to see the effect of economic growth and the amount of zakat on HDI and I-HDI. To test the hypothesis, the Ordinary Least Square (OLS) analysis method is used to see the elasticity of the independent variable to the dependent variable. The models are:

$$HDI = \alpha + \beta_1 rY + b_2 IZN + b_3 IZ + b_4 IKK + \epsilon$$

$$I - HDI = \alpha + \beta_1 rY + b_2 IZN + b_3 IZ + b_4 IKK + \epsilon$$

- rY = Economic growth
- IZN = National Zakat Index.
- IZ = Zakat index /religious index
- IKK = Poverty Depth Index

4. Results and discussion

4.1. Zakat Receipt and Potential

From the results of Amir and Yacob's research (2020), 78% of the Muslim community in Jambi Province pays zakat to the Amil Zakat Committee for Mosholas and Mosques. Only 14%, especially State Civil Apparatus (ASN) pay their zakat to BAZNAS [22]. From year to year, Zakat receipts by BAZNAS Province and Regency and City in Jambi Province continue to show an increase. During the last 5 (five) years, the value of zakat received by BAZNAS Province and Regency/City in Jambi Province is shown in Table 1.

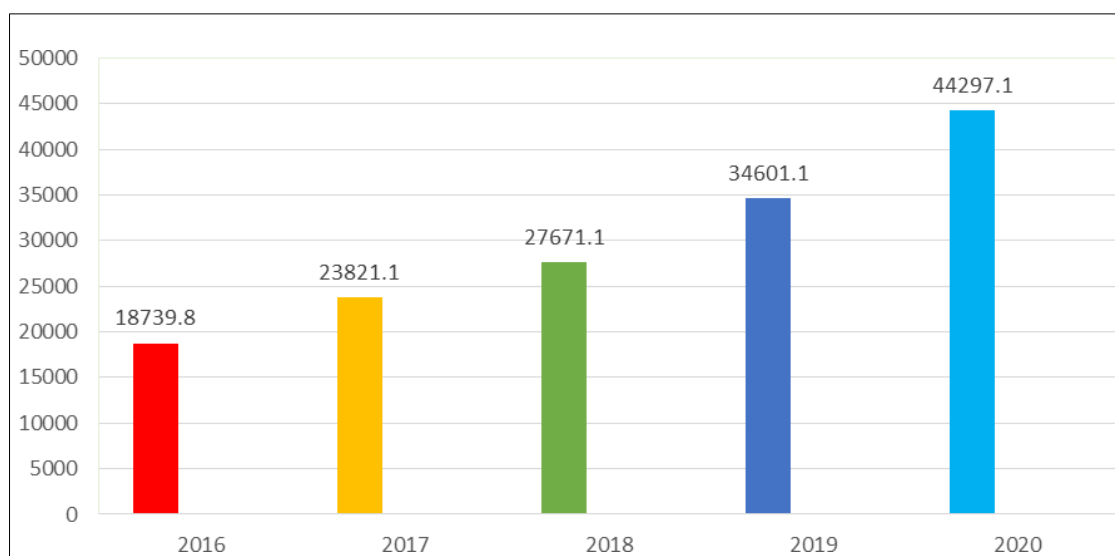
The total zakat receipts (consisting of zakat fitrah, zakat maal and others) that BAZNAS can collect in Jambi Province in 2020 is Rp. 44,297,085,280. If it is assumed that only 90% of Muslims in Jambi Province pay zakat fitrah, the average amount of zakat fitrah is Rp. 45,733.33 per person, then the potential for zakat receipts in Jambi Province is Rp. 159.992.109.672.10. Compared to the potential zakat fitrah collected, the zakat receipts that BAZNAS can collect in

Jambi Province are only around 27.69% or about 28% of its potential. Thus, there is still a huge potential for zakat that has not been collected from the Muslim community in Jambi Province by zakat amil.

Table 1 Provincial and Regency/City BAZNAS Zakat Receipts in Jambi Province 2016 – 2020 (In Rupiah)

Region	2016	2017	2018	2019	2020
Jambi Province	2,633,212,250	2,367,349,077	2,787,304,611	2,910,911,963	2,744,287,150
Kerinci	1,794,876,648	1,200,000,000	1,462,877,357	1,661,363,180	1,756,326,905
Merangin	1,070,036,000	1,595,012,393	1,957,324,136	5,098,405,692	7,626,639,276
Sarolangun	3,591,021,394	3,724,207,289	4,483,453,866	4,665,966,723	4,648,687,001
Batanghari	2,284,911,840	1,995,509,296	2,727,618,198	2,602,242,207	6,750,901,516
Muaro Jambi	288,891,944	296,792,678	532,012,691	1,018,747,804	1,149,269,865
Tanjung Jabung Timur	1,189,040,317	3,177,703,751	3,120,898,734	4,460,625,332	5,496,847,798
Tanjung Jabung Barat	125,575,350	162,833,600	370,930,700	363,829,883	626,812,561
Tebo	1,568,645,887	1,511,772,843	1,559,123,474	1,406,882,742	1,126,352,714
Bungo	3,211,520,553	3,540,522,479	3,503,479,409	3,413,289,566	4,223,690,357
Kota Jambi	2,317,437,769	3,131,497,303	3,800,000,000	5,730,010,641	7,012,936,895
Kota Sungai Penuh	982,100,929	1,157,893,388	1,366,069,760	1,268,793,341	1,134,333,242
Total	18,739,833,112	23,821,094,097	27,671,092,942	34,601,069,074	44,297,085,280

Source: Jambi Province Baznas (processed)



Source: Jambi Province Baznas (processed).

Figure 1 Total Zakat Receipt by Baznas in Jambi Province 2016 - 2020 (millions of rupiah)

Another method to calculate zakat potential is to calculate 2.5% (percentage of zakat that must be paid stipulated in Islam) of Regional Original Income (PAD). By calculating zakat 2.5% of PAD, the potential for zakat is obtained, then the amount of zakat received is divided by the potential for zakat. The zakat index or religious index is obtained as shown in Table 2.

Table 2 Zakat Index (Religious Index) Jambi Province Regency/City 2016 – 2020

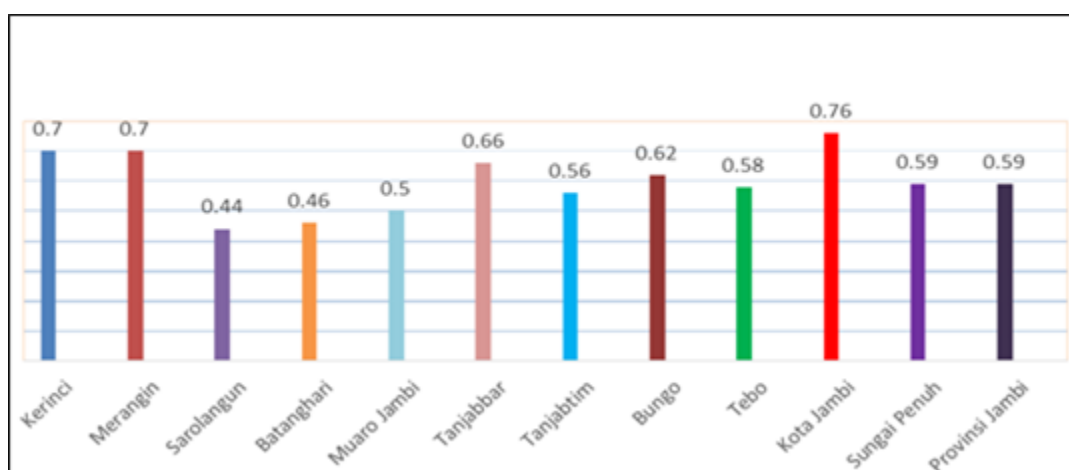
Region	Region Religious Index				
	2016	2017	2018	2019	2020
Jambi Province	0.03	0.022	0.025	0.026	0.022
Kerinci	0.07	0.042	0.049	0.050	0.053
Merangin	0.03	0.049	0.059	0.014	0.204
Sarolangun	0.13	0.128	0.146	0.143	0.143
Batanghari	0.08	0.071	0.091	0.075	0.195
Muaro Jambi	0.01	0.010	0.016	0.030	0.033
Tanjung Jabung Timur	0.04	0.127	0.114	0.153	0.189
Tanjung Jabung Barat	0.01	0.006	0.011	0.009	0.016
Tebo	0.06	0.059	0.057	0.050	0.039
Bungo	0.11	0.118	0.011	0.099	0.123
Kota Jambi	0.06	0.086	0.094	0.138	0.169
Kota Sungai Penuh	0.06	0.067	0.075	0.061	0.055

Source: Processed Results (Zakat receipts divided (0.025 x PAD))

4.2. Jambi Province National Zakat Index

The National Zakat Indicator (IZN) results from measurements carried out by the Center for Strategic Studies of the National Amil Zakat Agency (Puskas Baznas) in 2020 [23]. In the preparation of this IZN Puskas Baznas uses several indicators. The indicators that make up the IZN include macro and micro dimensions. The IZN value is made in several categories, namely; very good (0.81 – 1.00), good (0.61 – 0.80), quite good (0.41 – 0.60), not good (0.21 – 0.40) and not good (0.00 – 0.20).

The districts and cities that show IZN in a good category are Merangin Regency and Jambi City, and the rest are only in a fairly good category. Even regencies with IZN are classified as poor category (score 0.21 – 0.40), namely Muaro Jambi Regency, especially in 2016, 2017, and 2018. For Jambi Province itself, the IZN is only quite good in 2019 with a good category.



Source: Puskas BAZNAS 2020 (processed)

Figure 2 District/City National Zakat Index in Jambi Province in 2020

4.3. Human Development Index (HDI) Jambi Province and its Determinants

During the 2016 – 2020 period, the lowest HDI value in Jambi Province was Tanjung Jabung Timur Regency in 2016 with 61.88 (low category). Jambi City and Sungai Penuh City have high HDI status with HDI values above 70, and the rest have moderate HDI with values between $60 < \text{HDI} > 70$.

Table 3 Human Development Index District/City in Jambi Province 2016 – 2020

No	Region	2016	2017	2018	2019	2020
1	Jambi Province	69.62	69.99	70.65	69.62	71.29
2	Kerinci	69.68	70.03	70.59	70.95	71.21
3	Merangin	67.86	68.30	68.81	69.07	69.19
4	Sarolangun	68.73	69.03	69.41	69.72	69.86
5	Batanghari	68.70	68.92	69.33	69.67	69.84
6	Muaro Jambi	67.55	67.86	68.34	69.01	69.18
7	Tanjung Jabung Timur	61.88	62.61	63.32	63.92	64.43
8	Tanjung Jabung Barat	65.91	66.15	67.13	67.54	67.54
9	Tebo	68.05	68.16	68.67	69.02	69.14
10	Bungo	68.77	69.04	69.42	69.86	69.92
11	Kota Jambi	76.14	76.74	77.41	78.26	78.37
12	Sungai Penuh	73.35	73.75	74.67	75.36	75.42

Source: BPS, 2021

Many factors can affect HDI, but it is assumed that only economic growth, zakat index (religious index), and poverty depth index influence it in this study. The economic growth rate of the Regency/City and Jambi Province is shown in Table 4. From the data in Table 4, it can be seen that in 2020 only 3 (three) Regencies showed positive growth. The rest experienced a decline in economic growth.

Table 4 Economic Growth of Regency/City and Jambi Province in 2016 – 2020

Region	2016	2017	2018	2019	2020
Jambi Province	4.37	4.60	4.69	4.37	-0.46
Kerinci	6.72	5.86	4.93	4.23	3.69
Merangin	6.22	5.39	4.93	4.27	0.78
Sarolangun	4.26	4.68	4.80	4.65	-0.26
Batanghari	4.65	4.81	4.83	4.93	-0.27
Muaro Jambi	5.49	4.95	5.01	4.95	0.27
Tanjung Jabung Timur	2.65	3.07	2.94	4.21	-3.87
Tanjung Jabung Barat	3.14	4.48	6.77	5.01	-0.64
Tebo	5.40	5.58	4.98	4.76	-0.04
Bungo	5.39	5.68	4.65	4.25	-0.40
Kota Jambi	6.84	4.68	5.30	4.79	-3.28
Kota Sungai Penuh	6.51	6.02	4.88	5.05	-0.14

Source: Jambi Province in 2021 Figures.

For zakat index data, the zakat index or religious index is used, which is calculated from zakat receipts compared to zakat potential. Meanwhile, data on the depth of poverty can be seen in Table 5.

Table 5 Depth of Poverty in Jambi Regency/City and Province 2016 – 2020

Region	2016	2017	2018	2019	2020
Jambi Province	1.47	1.28	1.30	1.23	1.23
Kerinci	0.92	1.56	0.72	0.59	0.59
Merangin	1.77	1.69	1.86	1.39	1.39
Sarolangun	1.37	2.2	1.49	1.17	1.17
Batanghari	1.29	1.86	1.24	1.29	1.29
Muaro Jambi	0.49	0.45	0.68	0.39	0.39
Tanjung Jabung Timur	2.00	2.98	2.19	1.75	1.75
Tanjung Jabung Barat	1.61	2.35	1.70	1.68	1.68
Tebo	0.96	0.87	0.95	1.07	1.07
Bungo	0.97	1.19	0.62	0.81	0.81
Kota Jambi	1.59	1.13	1.26	1.52	1.52
Kota Sungai Penuh	0.26	0.23	0.26	0.25	0.25

Using the existing data and the analysis results, it is obtained that the close relationship (R) between HDI and the variables suspected to influence it is 50.1%, and determination coefficient (R²) is 25.1%. These results indicate that the close relationship between HDI and the independent variable is only 50%, and the independent variable can only explain changes in HDI in Jambi Province by 25%.

Table 6 Human Development Index Summary Model

Model Summary				
Model	R	R Square	Adjusted R Square	Std Error of the estimate
1	0.501 ^a	0.251	0.211	3.0848132

Predictors: (Constant), IKK, rY, IZ

Table 7 ANOVA of the Human Development Index Model

ANOVA ^b					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	178.731	3	59.577	6.261	0.001 ^a
Residual	532.900	56	9.516		
Total	711.631	59			

Predictors: (Constant), IKK, rY, IZN; Dependent Variable: HDI

Furthermore, based on the Anova table, the calculated F value is 6.261, with a significant level of 99.99%. These results indicate that the statistical model can be used to analyze HDI changes in Jambi Province. It means that statistically changes in HDI in Jambi Province can be explained by economic growth, the Zakat Index, and the Poverty Depth Index.

By paying attention to the statistical t value and its significance, it is known that only the zakat index variable and the poverty depth index significantly affect HDI. In contrast, the economic growth variable has no significant effect. Thus the regression equation of factors that affect HDI in Jambi Province are;

$$\text{HDI} = 72.101 + 0.041 \text{ rY} + 0.145 \text{ IZ} - 2.968 \text{ IKK}$$

Based on the above equation, it can be explained that the average HDI in the Province is 67.11. Based on the category, the HDI in Jambi Province is classified as moderate below the HDI Indonesia (in 2019), which has a value of 70.7.

Table 8 Coefficient of the Human Development Index Model

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	72.101	1.110		64.977	0.000
rY	0.041	0.073	0.068	0.568	0.572
IZ	0.145	0.085	0.207	1.708	0.093
IKK	-2.968	0.702	-0.497	-4.227	0.000

Dependent Variable: HDI

From the above equation, it can be explained that HDI in Jambi Province is influenced by the religious index and the poverty depth index, while economic growth has no effect. The zakat index coefficient of 0.145 explains that if the zakat index or, in other words, if zakat receipts increase by 10%, the HDI index will also increase by 1.45 points. Furthermore, if the poverty depth index increases by 1 point, the HDI value will decrease by around 2,968 points. From the results of this analysis, it can be seen that the effect of the depth of poverty on HDI is very large compared to the effect of zakat or the religious index.

4.4. Islamic Human Development Index Jambi Province and Its Determinants

Like HDI, the I-HDI aims to measure and determine success to build the quality of life for humans, communities/populations with an Islamic approach. With I-HDI, the quality level of humans, communities, and residents of an area will be seen in material and religiosity. HDI data is needed for the I-HDI measurement, school year expectation, life expectancy, fertility rate, poverty depth index, per capita expenditure, and the Gini ratio. By using HDI data from the District/City and Province of Jambi, religiosity index (acquisition of zakat/potential zakat), al Acqal index (school year expectation + average years of schooling), life expectancy, fertility rate, and wealth index (measured from the poverty depth index). , Gini ratio, per capita expenditure, and life expectancy can then be calculated, compiled, and presented I-HDI for Regency/City and Jambi Province as shown in Table 7.

As with HDI, I-HDI status can also be divided into 4 (four) categories: low, medium, high, and very high. Taking into account the I-HDI in Table 7, the status of the I-HDI category in the Provinces and Districts in Jambi Province is classified as low. The I-HDI value in Jambi Province is generally less than 60, except for Jambi City in 2019 with an I-HDI of 60.7 and 2020 with an I-HDI of 63.9. The low category I-HDI in many regencies/cities in Jambi Province shows that the community or residents in Jambi Province have not been able to access development results in obtaining income, health, education, and so on spiritually well. Compared to the HDI in Jambi Province, which has a moderate status, the I-HDI turns out to have a low status. The results of the I-HDI calculation in Jambi Province are not much different from Koyimahs' research (2020) [24]. During the 2014-2018 period, out of 21 cities in West Java, it turned out that only one or two cities had a moderate I-HDI. In addition, 19-20 cities studied had a low I-HDI.

This low category I-HDI needs to be known what causes it. The I-HDI calculation process comes from material welfare and non-material welfare or spiritual welfare. Material determinants can be as a fraction of economic growth, GNP/GRDP per capita, or per capita expenditure, while spiritual determinants can be proxied from the IZN or religiosity index. In this study, material welfare is measured from economic growth during the 2016 to 2020 period for all districts, cities, and provinces, while for non-material welfare, zakat index data (religiosity index) is used.

Table 9 Islamic Human Development Index District/City and Jambi Province Year 2016 – 2020

Islamic Human Development Index					
Region	2016	2017	2018	2019	2020
Jambi Province	42.1	40.3	41.9	42.4	42.1
Kerinci	38.7	42.5	37.3	36.9	37.6
Merangin	44.3	45.5	49.1	51.5	57.3
Sarolangun	52.1	59.6	55.2	52.8	52.9
Batanghari	44.2	47.7	45.3	45.0	55.1
Muaro Jambi	29.2	29.1	32.2	31.6	32.3
Tanjung Jabung Timur	42.0	58.6	52.2	52.8	56.5
Tanjung Jabung Barat	38.5	44.9	42.4	42.2	42.7
Tebo	40.2	38.9	40.6	41.3	40.8
Bungo	45.3	48.2	43.4	44.3	46.2
Kota Jambi	48.3	48.9	52.2	60.7	63.9
Kota Sungai penuh	33.3	34.8	37.4	37.9	37.6

Source: Processed Products.

The economic growth rate in Jambi Province and Regency/City during the 2016 – 2019 period ranged between the lowest 2.65% and the highest 6.84%. For 2020, the provincial and district/city economic growth rates in Jambi Province are generally negative, except for Kerinci District of 3.69% and Merangin District of 0.78% and Muaro Jambi District with economic growth of 0.27%. The zakah index (Zakat Receipt divided by 2.5% of PAD) or the IZN can be used for the religious index. The two indices were used to see the determinants that affect the I-HDI for this study. By using I-HDI data, economic growth rate, zakah index, and IZN, as well as poverty depth index, the equation for Jambi Province is obtained as follows.

$$I - \text{HDI} = 21.243 - 0.016 rY + 0.950, IZ + 7.370 \text{ IKK} + 0.131 \text{ IZN} + e$$

By paying attention to the ANOVA table, it can be seen that the F test shows a value of 70.701 with a significance of 0.00. This shows that the model used statistically can be used. This means that the economic growth variables, the national zakat index, the zakat index (religious index), and the poverty depth index affect the I-HDI in Jambi Province.

Table 10 Islamic Human Development Index Summary Model

Model Summary				
Model	R	R Square	Adjusted R Square	Std Error of the estimate
1	0.915 ^a	0.837	0.825	3.3531219

Predictors: (Constant), IZN, IZ, IKK, rY

Table 11 ANOVA of the Islamic Human Development Index Model

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3179.701	4	794.925	70.701	0.000a
	Residual	618.388	55	11.243		
	Total	3798.089	59			

Predictors: (Constant), IZN, IZ, IKK, rY; Dependent Variable: IHDI

Table 12 Coefficient of the Islamic Human Development Index Model

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.243	2.343		9.068	0.000
	rY	-0.016	0.080	-0.012	-0.205	0.838
	IZ	0.950	0.093	0.585	10.272	0.000
	IKK	7.370	0.772	0.535	9.552	0.000
	IZN	0.131	0.036	0.203	3.631	0.001

Dependent Variable: IHDI

Furthermore, by paying attention to the t statistic value of each parameter and its significance, from the dependent variable used, only economic growth is not significant, meaning that economic growth affects I-HDI. This study shows similarities with the research of Rochman and Sukmana (2019), especially for the variables of economic growth and poverty [17]. Their research results show that unemployment and poverty levels have a significant effect on the I-HDI, while GRDP has no significant impact on the I-HDI. In addition, their results show a difference in ranking between HDI and IHDI. Several provinces have obtained IHDI, which is quite low, below 50%, which can be seen in the Provinces of NTT, NTB, and Papua. At the same time, other provinces get good IHDI scores. For Jambi Province, the IHDI status is not much different from the findings of Siti et al. The I-HDI in Jambi Province is generally less than 60, except for Jambi City and even then only in 2019 with an I-HDI of 60.7 and in 2020 with an I-HDI of 63.9. The HDI value of Jambi Province during the 2016 – 2020 period is 69.92 – 71.26, while the I-HDI value of Jambi Province during the 2016 – 2020 period is 42.10 – 42.40. This means that the achievement of HDI is higher than the achievement of I-HDI. Based on this fact, it can be concluded that the awareness of the people of Jambi Province to fulfill their obligations as Muslims, especially regarding zakat, has not been optimal.

Based on statistical tests of the model and each parameter, it can be interpreted that changes in the I-HDI in the District/City and Province of Jambi can be explained by the level of the zakat index (religious index), the national zakat index, and the poverty depth index. The relationship between IZN, IZ, and the poverty depth index is positive. This shows that if the IZN, IZ, and the poverty depth index increase, the I-HDI will also increase.

Especially for the poverty depth index, which has a positive relationship with the I-HDI, it can be explained that if the poverty depth index increases, the I-HDI also increases. This means that public awareness to carry out their obligation to pay zakat is increasing, because one of the I-HDI indicators is the payment of zakat. Therefore, the poorer and the deeper the poverty of the people of an area, the higher the zakat paid by *muzaqi*, thereby increasing I-HDI.

5. Conclusion

- Zakat receipts received by Baznas in Jambi Province during the 2016 to 2020 period continued to show an increasing trend.
- Jambi Province HDI and District/City HDI in Jambi Province during the 2016 to 2020 period, continued to show improvement but were still on a moderate scale.
- HDI in Jambi Province is significantly affected by NZI and Poverty Depth Index, where the Poverty Depth Index has a negative effect.
- I-HDI in Jambi Province from 2016 to 2010 was low.
- Religious Index, National Zakat Index, and Poverty Depth Index have a significant effect on I-HDI in Jambi Province
- The HDI level is higher than the I-HDI level.

Suggestions

- HDI and I-HDI in Jambi Province still need to be improved because they are still classified as medium and low.
- To increase I-HDI in Jambi Province, it is necessary to continue efforts to increase zakat receipts, especially by BAZNAS.

- The Poverty Depth Index is still the determinant of HDI and I-HDI in Jambi Province, therefore it needs to be continuously suppressed in order to increase HDI and I-HDI.

Compliance with ethical standards

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Disclosure of conflict of interest

The authors (Amir, Rafiqi, Amri and Alissa) declare no conflicts of interest regarding the publication of this paper.

Statement of informed consent

The present research work does not contain any studies performed on animals/humans subjects by any of the authors.

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