



The Influence of The Human Development Index and Unemployment on Poverty: Zakat as Moderation

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Abstract. One of the main problems faced by DKI Jakarta province is poverty, which includes the problem of unemployment and human resource development. The purpose of this study is to analyze the effect of the human development index and unemployment on poverty moderated by zakat in DKI Jakarta in 2012–2020. The research data source is secondary data using a panel data model, namely annual data from the variable's human development index, unemployment, zakat, and poverty in six regions in DKI Jakarta. The data analysis technique used is multiple regression with moderating variables using the SPSS IBM 23 application. The results of the study show that there is an influence of the human development index on the poverty level; there is no effect of unemployment on the level of poverty; zakat is able to moderate the human development index on poverty, but zakat is not able to moderate the impact of unemployment on poverty.

Keywords: Human Development Index, Poverty, Unemployment, Zakat.

1 Introduction

The problem of poverty is a classic problem in developing countries and is caused by several factors such as unemployment, the quality of human resources, and economic growth [1]. Various programs have been attempted to reduce the level of poverty but have not been successful [2]. In essence, the purpose of developing a region is to improve the welfare of its people. However, inequality in economic development will lead to poverty. The government's strategy for alleviating poverty is through human resource development, using the Human Development Index (HDI) measurement. [3], [4] found that HDI has a negative effect on poverty. Different findings [5], [6] where the HDI has no effect on the poverty rate. When a development program is unable to provide employment opportunities for the workforce, it will cause a wave of dissatisfaction for the unemployed, which lowers living standards and increases poverty [7], [8]. However, this is not supported by [4], which states that unemployment has no positive and significant effect on poverty. The majority of Indonesia's population is Muslim, and each community has the obligation to pay zakat [9]. So that zakat has the potential to become a driving force for the economy to help welfare, and is a solution to poverty alleviation

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[10], [11] which has social and economic dimensions. However, these findings are different [12], [13], where zakat has not had a significant impact on improving people's welfare. Furthermore, [14] found in his research using zakat as a moderating variable that zakat funds were able to moderate the effect of the unemployment on poverty. In contrast to [15], zakat is not able to moderate HDI on poverty. Then according [16] shows that zakat is able to moderate the effect of HDI on poverty. Meanwhile, [17] found that zakat was not able to moderate the effect of unemployment on poverty.

In the context of the relationship between HDI, unemployment, and poverty with zakat as a moderating variable, this is a rare study. Based on previous research, there is a research gap where there are different research results that are still being debated. This research on factors influencing poverty uses two independent variables (X), namely the Human Development Index Variable (X1) and the Unemployment Variable (X2); one dependent variable (Y), namely poverty; and one moderating variable, namely zakat (Z), with the hope that the results obtained will strengthen the existing theory. For this reason, the research that will be discussed is "The Influence of Human Development Index, Unemployment on Poverty with Zakat as Moderation Variable". The aims of this research are: 1) to analyze the positive effect of HDI on poverty in DKI Jakarta; 2) to analyze the effect of unemployment on poverty in DKI Jakarta; 3) to analyze whether the zakat variable is able to moderate the HDI on poverty in DKI Jakarta; and 4) to analyze whether the zakat variable is able to moderate unemployment against poverty in DKI Jakarta. DKI Jakarta Province as the research focus because DKI Jakarta Province, as the center of government and economic activity, is the main attraction for people to move to Jakarta due to the undeveloped areas of other regions. The data shows that the population of DKI Jakarta is the highest compared to the 34 provinces in Indonesia. (<https://jakarta.bps.go.id/>).

2 Method

The research method was quantitative and consists of four variables: the human development index, unemployment, zakat, and poverty. Human development index and unemployment are independent variables; poverty is the dependent variable, while zakat was the moderating variable. The research data source was secondary data with panel data model: annual data from the variable's human development index, unemployment, zakat, and poverty in six regions in DKI Jakarta. The data collection technique was carried out indirectly in the form of secondary data, which was accessed through internet research from the official websites of the Central Statistics Agency (BPS) and the National Amil Zakat Agency (BAZNAS). The data analysis technique used is multiple regression with moderating variables using the SPSS IBM 23 application.

The following is the multiple regression equation model in this study:

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

Where: Y = Poverty; X1 = HDI; X2 = Unemployment; Z = Zakat Fund; β = Constant; ε = error term; $\beta_1 X_1 * Z$ = HDI * Zakat Fund; $\beta_2 X_2 * Z$ = Unemployment * Zakat Fund

3 Result and Discussion

3.1 Presenting the Results

Poverty is still a problem and is multidimensional in nature, which will have a multiplier effect on all aspects of society as a whole. And this is a major challenge in development. Based on the 2019 SUSENAS data, the percentage of poor people in DKI Jakarta is the lowest among the 34 provinces in Indonesia. The poor population in DKI Jakarta is dominated by the Kepulauan Seribu, namely 14.87 percent, where this region has characteristics, natural potential, and economic sectors that are different from other areas of DKI Jakarta, where access to transportation is not as easy as on the mainland. The main source of livelihood for the people of the Kepulauan Seribu is fishing. During the west wind season or high waves, they cannot go to sea, which results in reduced income. Meanwhile, South Jakarta is the area with the lowest percentage of poor people, namely 3.43 percent.

One source that influences the poverty rate is the HDI, which consists of three components: life expectancy, education index, and decent standard of living index [1]. According to the standards of the United Nations Development Program (UNDP), the HDI category is very high, namely $HDI > 80$; the high HDI category is 70–79; and the medium HDI category is 60–79. In 2018 the DKI Jakarta province was in the very high HDI category, reaching 80.47 (<https://indonesiabaik.id>). And in 2020, the entire DKI Jakarta area will have a high HDI value above the national average, namely 70.91 (<https://statistik.jakarta.go.id/dki-jakarta>). This is because the government provides a lot of funds and programs in the fields of health, education, and living standards for improving people's welfare. The highest HDI value is found in the South Jakarta area, namely 84.44, while the lowest HDI value is found in the Kepulauan Seribu area, namely 70.91.

BAZNAS is one of the institutions authorized to empower zakat funds in Indonesia to improve the welfare of *mustahiq* so that their standard of living becomes better. The distribution of zakat funds for the DKI Jakarta area in 2012–2020 has continued to increase. where the highest total zakat receipts were in the Central Jakarta area, namely 24.825 billion in 2012 and continued to increase until 2020 of 70,200 billion. While the lowest zakat recipients are in the Kepulauan Seribu region, where in 2012 it reached 4.1375 billion, and each year it increases until in 2020 it reaches 13.885 billion.

The results of the research are based on the results of the normality test on the variables poverty, HDI, unemployment, and zakat using the One-Sample Kolmogorov-Smirnov test. It is known that the asymptotic significance (2-tailed) value is 0.200, so it can be concluded that the tested data is normally distributed because the probability value is greater than the significance level, namely $0.200 > 0.05$. Furthermore, a determinant coefficient test (R^2) was carried out which was used to see the extent to which the influence of the independent variable on the dependent variable, where the adjusted R-square value was 0.656, meaning that the independent variables HDI and unemployment were able to explain the dependent variable poverty by 65.6 percent. While the remaining 34.4 percent is influenced by other variables not in the model. Based on the multicollinearity test, it shows that the VIF (Variance Inflation Factors) value for the

HDI and unemployment variables is <10 , meaning that the two independent variables are free from the assumption of multicollinearity.

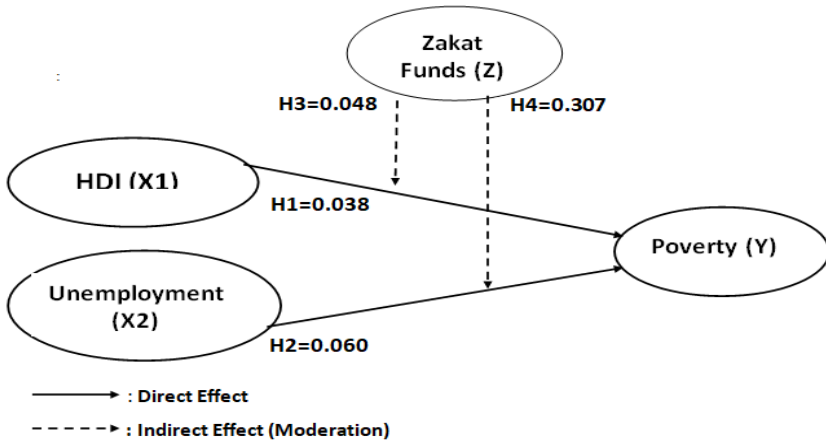


Fig. 1 The result and testing of moderating variables in the study.

Table 1. Multiple Regression Hypothesis Test Results

Model	Unstandardized	Co-	Sig 2-	Collinearity Statistics	
	efficients			tail	Tolerance
	B				
(Constant)	393.130		0.022		
X1HDI	-0.011		0.038	0.987	1.013
X2Unemployment	30.240		0.060	0.932	1.073
HDI_Zakat	-1.678E-7		0.048	0.877	1.141
Unemployment_Zakat	-0.015		0.307	0.253	3.953

3.2 Discussion

Based on the results of hypothesis testing that has been carried out in this study in Table 1, it can be explained as follows:

H1: Effect of HDI (X1) to Poverty (Y) in DKI Jakarta

Table 1 shows that the HDI has a negative effect on the poverty rate in DKI Jakarta, where the significant value is $0.038 < 0.05$, so H1 is accepted. The results of this study are also supported by [3], [18]. The 2018 BPS data shows that almost all areas of DKI Jakarta have the highest HDI compared to 34 other provinces in Indonesia. The lowest HDI achievement score is in the Kepulauan Seribu, namely 70.31. This is due to the lack of sea transportation facilities and infrastructure, where the main livelihood of the majority of the population is fishermen who are very dependent on natural conditions. If it's the west wind season or high waves they can't go to sea, so their income decreases. However, in 2020 the HDI achievement value will be 71.63, above the national average

of 71.39. So that the HDI status of DKI Jakarta is in the "high" classification category (BPS 2018). The achievement of this high HDI score is due to government policies in the fields of education, health, and standard of living that increase the productivity of human work so that income increases to meet the needs of a decent life. Meanwhile [2] found that HDI has a negative and insignificant effect on poverty in ASEAN-4, where education is only enjoyed by certain people therefore allowing them to choose desired profession.

H2: Effect of unemployment (X2) to Poverty (Y) in DKI Jakarta

There was no effect of unemployment on the poverty level in DKI Jakarta, where the significant level is $0.060 > 0.05$, so H2 is rejected. The results of this study are also supported by [3]–[5]. Fig 1 displayed there was no direct effect of unemployment towards poverty. Another finding by [6], [8] where unemployment has a positive effect on poverty. This happens because unemployment is dominated by educated unemployed. Where will they be able to meet their needs (or groups of people with income slightly above the poverty line), and some of the open unemployed groups are already included in the informal sector and already have their own businesses. In addition, there are also those who already have jobs with working hours of less than 35 hours each week [3]. The 2018 Sakernas data shows that the quality of the DKI population's resources is relatively high, with 33.42 percent of the majority of the population having high-school education or above, vocational high school graduates making up 8.11 percent, and Diploma 1 to Bachelor 1 and above making up 16.42 percent. The same thing was stated [7] where poverty in a region is not always related to employment. Sometimes there are workers in urban areas who don't work voluntarily because they are looking for a better job, according to their education. They wait to get a better job; they act this way because they have other sources that can help them financially [19].

H3: Zakat moderates HDI (X1_Zakat) on Poverty (Y) in DKI Jakarta.

Table 1 shows that zakat is able to moderate the effect of HDI on poverty in DKI Jakarta with a probability level of $0.048 < 0.05$, so that H3 is accepted. The results of this study are also supported by [16]. In general, the distribution of zakat funds by BAZNAS DKI Jakarta continues to increase every year. BAZNAS, as the executor of the zakat program, has also prioritized the appropriate achievement targets. It is proven that the Province of DKI Jakarta has achieved the highest HDI achievement in Indonesia, namely 80.47 [19]. Where the principle of distributing zakat is based on Maqasid Syariah by prioritizing daruriyah (primary needs), namely related to income for a decent life, improving health, education and people's purchasing power [20], [21]. Unlike [15] where the distribution of zakat is not able to moderate the effect of HDI on poverty.

H4: Zakat moderates Unemployment (X2_Zakat) on Poverty(Y) in DKI Jakarta.

Table 1 shows that zakat is not able to moderate the effect of unemployment on the poverty rate in DKI Jakarta, where the significance level is $0.307 > 0.05$, so H4 is rejected. The research results are supported by [14]. The distribution of zakat is more directed toward consumptive matters, so zakat cannot improve the welfare of the poor

before and after receiving zakat. Zakat fund distribution is to increase community prosperity especially for mustahiq (people entitled for zakat). The fund may be limited due to higher of mustahiq compared to the muzakki. The population in DKI Jakarta continues to rise due to uneven development and lack of job opportunities. There is an uncontrolled rate of population lock-up without being balanced with the education and work skills of newcomers. The population density in DKI Jakarta reaches 15,938 people per km², which is the highest density compared to other provinces in Indonesia. The highest percentage of poor people in DKI Jakarta is in the Kepulauan Seribu area. It is different from the findings [16], showing that zakat is able to moderate activity against gloom.

4 Conclusion

The conclusions of this study are: 1) HDI had a negative effect on the poverty rate in DKI Jakarta; 2) there was no effect of unemployment on the level of poverty in DKI Jakarta; 3) zakat can moderate the effect of HDI on poverty in DKI Jakarta; 4) there was no effect of unemployment on the level of poverty in DKI Jakarta. The suggestion given is that the zakat distribution program can be linked to the Sustainability Development Goals Program with an approach to the Maqasid Syariah approach so that poverty alleviation can be achieved.

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References

1. M. Alhudhori, 'Pengaruh Ipm, Pdrb Dan Jumlah Pengangguran Terhadap Penduduk Miskin Di Provinsi Jambi', *Ekon. J. Econ. Bus.*, Vol. 1, No. 1, P. 113, 2017.
2. A. Syaifullah And N. Malik, 'Pengaruh Indeks Pembangunan Manusia Dan Produk Domestik Bruto Terhadap Tingkat Kemiskinan Di Asean-4 (Studi Pada 4 Negara Asean)', *J. Ilmu Ekon.*, Vol. 1, Pp. 107–119, 2017.
3. Suropto And L. Subayil, 'Pengaruh Tingkat Pendidikan, Pengangguran, Pertumbuhan Ekonomi Dan Indeks Pembangunan Manusia Terhadap Kemiskinan Di D.I.Yogyakarta Priode 2010-2017', *J. Ilm. Ekon. Pembang.*, Vol. 1, No. 2, P. 127, 2020.
4. N. Zuhdiyaty And D. Kaluge, 'Analisis Faktor-Faktor Yang Mempengaruhi Kemiskinan Di Indonesia Selama Lima Tahun Terakhir', *J. Ilm. Bisnis Dan Ekon. Asia Pascasarj. Ilmu Ekon. Fak. Ekon. Dan Bisnis Univ. Brawijaya*, Vol. 11, No. 2, Pp. 27–31, 2017.
5. N. K. E. Endrayani And M. H. U. Dewi, 'Analisis Faktor-Faktor Yang Mempengaruhi Tingkat Kemiskinan Kabupaten/Kota Di Provinsi Bali', *E-Jurnal Ekon. Dan Bisnis Univ. Undayana*, Vol. 5, No. 1, Pp. 63–88, 2016.
6. Y. Yurianto, 'Identifikasi Faktor Yang Mempengaruhi Kemiskinan Di Dki Jakarta Dengan Menggunakan Pendekatan Simultaneous Equation Model', *J. Ris. Jakarta*, Vol. 12, No. 2, Pp. 43–56, 2019.

7. C. Béné, A. Newsham, M. Davies, M. Ulrichs, And R. Godfrey-Wood, 'Review Article: Resilience, Poverty And Development', *J. Int. Dev.*, Vol. 26, No. 5, Pp. 598–623, 2014.
8. S. Siregar, 'Pengaruh Pdrb Riil Dan Inflasi Terhadap Tingkat Kemiskinan Kota Medan Dengan Variabel Intervening Pengangguran', *J. Ilm. Methonomi*, Vol. 3, No. 2, Pp. 61–72, 2017.
9. F. Johari, M. Ridhwan, A. Aziz, A. Fahme, And M. Ali, 'The Role Of Zakat In Reducing Poverty And Income Inequality Among New Convert (Muallaf) In Selangor, Malaysia', *Online J. Res. Islam. Stud.*, Vol. 1, No. 3, Pp. 43–56, 2014.
10. I. S. Beik And L. D. Arsyianti, 'Measuring Zakat Impact On Poverty And Welfare Using Cibest Model', *J. Islam. Monet. Econ. Financ.*, Vol. 1, No. 2, Pp. 141–160, 2016.
11. N. Abdullah, A. M. Derus, And H. A. N. Al-Malkawi, 'The Effectiveness Of Zakat In Alleviating Poverty And Inequalities A Measurement Using A Newly Developed Technique', *Humanomics*, Vol. 31, No. 3, Pp. 314–329, 2015.
12. B. M. Rédha, G. Larbi, And R. M. Karima, 'The Impact Of Zakat Fund In Reducing Poverty Case Of Algeria', *Mediterr. J. Soc. Sci.*, No. February 2017, 2016.
13. E. A. Khasandy And R. Badrudin, 'The Influence Of Zakat On Economic Growth And Welfare Society In Indonesia', *Integr. J. Bus. Econ.*, Vol. 3, No. 1, P. 65, 2019.
14. M. Ridlo And F. I. Sari, 'Analisis Pengaruh Pengangguran, Pertumbuhan Ekonomi (Pdrb) Terhadap Kemiskinan Dengan Zakat Sebagai Variabel Moderasi', *Al-Awwal J. Ekon. Dan Perbank. Syari'ah*, Vol. 12, No. 1, P. 22, 2020.
15. M. Soleh And N. Wahyuni, 'Pengaruh Ipm, Pdrb Dan Pengeluaran Pemerintah Terhadap Kemiskinan Di Jawa Tengah Dengan Zakat Sebagai Moderating', *Ijieb Indones. J. Islam. Econ. Bus.*, Vol. 6, No. 2, Pp. 86–106, 2021.
16. Apriawatik, 'Pengaruh Indeks Pembangunan Manusia, Jumlah Penduduk Dan Pengangguran Dengan Distribusi Zakat Sebagai Variabel Moderasi Terhadap Kemiskinan Di Indonesia (Periode 2007-2020)', Iain Salatiga, 2021.
17. N. R. Rifkah, 'Analisis Pengaruh Indeks Pembangunan Manusia, Pdrb, Dan Pengangguran Dengan Pendayagunaan Zakat Sebagai Pemoderasi Terhadap Tingkat Kemiskinan Di Pulau Jawa Tahun 2014-2019', Iain Salatiga, 2020.
18. F. H. Wulandari, 'Pengaruh Pertumbuhan Ekonomi, Inflasi, Pengangguran, Dan Pendidikan Terhadap Kemiskinan Provinsi Di Indonesia Tahun 2008-2012', 2014.
19. L. Arsyad, *Pengantar Perencanaan Pembangunan Ekonomi Daerah*, 2nd Ed. Jogjakarta: Perpustakaan Universitas Ahmad Dahlan, 2011.
20. Divisi Riset Dan Kajian And Pusat Kajian Strategis Baznas, *Sebuah Kajian Zakat On Sdgs*. 2017.
21. K. Tanvir Mahmud, M. Kabir Hassan, M. Ferdous Alam, K. Sohag, And F. Rafiq, 'Opinion Of The Zakat Recipients On Their Food Security: A Case Study On Bangladesh', *Int. J. Islam. Middle East. Financ. Manag.*, Vol. 7, No. 3, Pp. 333–345, 2014.

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