Research Article

Human Development Index and Local Government Performance: Evidence from Central Java Province, Indonesia

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Abstract.

This research examines the relationship between the human development index (HDI) and local government performance. Further, our study divided the HDI into life expectancy, education, and per capita income. The measurement of local government performance was done through evaluation of local government performances from the Ministry of Home Affairs, Republic of Indonesia. The current study sample consists of the local government in Central Java Province during the 2014-2019 period. There are 35 local governments in Central Java Province, with 210 observations. The result of the study shows that HDI has a positive effect on local government performance. The higher HDI index has improved the performance of local government. Further, life expectancy and income per capita positively affect the local government's performance. On the other hand, education has no significant effect on the local government's performance. This study also investigates the effect of HDI on future local government performance. The result of the study also confirms the expectation that HDI has improved the next year's local government performance. It is expected that the local government will give more attention to improving the HDI index, thus, improving the local government's performance.

Keywords: human development index, local government, performance, life expectancy, income per capita

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1. Introduction

This research aims at examining the effect of human development index on local government performance. The recent survey on the HDI index in Indonesia shows that the mean HDI for Indonesia is 72.29, an increase of 0.35% from the previous year. The highest score of HDI is Special Capital Region of Jakarta which achieves a score of 81.11, while the lowest score is Papua Province with 60.62. There is a gap between the highest and the lowest score of HDI in Indonesia. Central Java Province achieves the HDI score of 72.16. This score is slightly lower compared to the mean of HDI in Indonesia.

How to cite this article: Doddy Setiawan*, Jaka Winarna, Yoga Pratama Nugroho, (2023), "Human Development Index and Local Government Performance: Evidence from Central Java Province, Indonesia" in *International Conference on Politics, Social, and Humanities Sciences*, KnE Social Sciences, pages 230–237. DOI 10.18502/kss.v8i3.12830

Page 230

Previous research shows the importance of HDI in improving government performance. Zhang and Danish [1] provide evidence that a better HDI index has a significant effect on achieving higher economic growth in Asian countries. This result is in line with Novid and Sumarsono [2] who find that the HDI index significantly pushes economic growth in Indonesia. Ranis, Stewart [3] argue that HDI and economics have a strong relationship with each other. Thus, it is important to consider HDI on the government's objective to raise better economic growth. Other studies, such as Arimah [4] find that the strategy to improve HDI negatively affects poverty. The right choice of HDI development reduced the poverty level. The improvement of HDI index also provides better access to electricity and reduce the level of poverty [5] and reduce the economic inequality [6]. On the other hand, a study by Reyes and Useche [7] find no significant relationship between economic growth and human development.

Previous study on Indonesia also finds that HDI is important factors on government performance to reduce poverty and inequality. Prasetyoningrum and Sukmawati [8] find that HDI in Indonesia have negative relationship with poverty. Thus, province with better HDI index have lower poverty level compare to others. Yuliadi [9] also provide evidence that HDI have positive impact on the economic growth in Indonesia. The higher score of HDI represent the higher quality of human development and it is significantly increasing the level of economic growth in Indonesia. The result of the previous study shows that HDI have positive effect on the local government performance. Further, Saputra, and Ardila [10] focus on the effect of local government financial characteristics and HDI to the level of local government performance. They found that both financial characteristics and HDI have significant effect on local government performance. The higher score of HDI push local government to achieve higher performance. Therefore, it is important to considers the HDI to the local government effort to achieve better performance. On the other hand, a study by Riphat, Setiawan [11] regarding the relationship between financial performance and human development index in Eastern province of Indonesia do not find significant relationship at the most financial ratio. Previous study shows inconsistent result on the effect of HDI to the local government performance. Therefore, the current study fill this gap. The current study focuses on the effect of HDI to the local government performance. The measurement of local government performance refers to evaluation score of local government performance from Ministry of Home Affairs, using local government in Central Java province.

2. Method

The current study uses quantitative methods to answer the research question. Sample of the study consists of local government in the Central Java Province during 2014-2019 periods. There are 35 local governments at the Central Java province divides to 6 city and 29 regencies. The final sample consists 35 local government X 6 years = 210 observations.

The dependent variable of the study is local government performance. The measurement of local government performance refers to local government evaluation by Ministry of Home Affairs through Ministry of Home Affairs decree about the rank of local government performance (10). The independent variable of the study is Human Development Index (HDI) from the Statistics Indonesia (BPS or Biro Pusat Statistik). Further, we divided the HDI into three categories: education expectancy, life expectancy (LE) and purchasing power parity (PPP). For the education expectancy, there are two aspects: expected year of schooling (EYS) and mean years of schooling (MYS). This study also uses five control variables, which are: capital adequacy ratio (CER), effectiveness ratio of local revenue (ER), fiscal decentralization (FD), regional financial dependency ratio (RFDR) and local government size (Size).

The equation 1 is to test the effect of HDI to local government performance:

$$LGPer_{it} = \alpha + \beta_1 HDI_{it} + \beta_2 CER_{it} + \beta_3 ER_{it} + \beta_4 FD_{it} + \beta_5 RFDR_{it} + \beta_6 Size_{it} + \varepsilon \ ..... \ (1)$$

For the second equation to test the sub-index of HDI to the local government performance

$$LGPer_{it} = \alpha + \beta_1 LE_{it} + \beta_2 PPP_{it} + \beta_3 MYS_{it} + \beta_4 EYS_{it} + \beta_5 CER_{it} + \beta_3 ER_{it} + \beta_6 FD_{it} + \beta_7 RFDR_{it} + \beta_8 Size_{it} + \varepsilon \ ..... \ (2)$$

The equation 3 is to test the effect of HDI to future local government performance:

$$LGPer_{it+1} = \alpha + \beta_1 HDI_{it} + \beta_2 CER_{it} + \beta_3 ER_{it} + \beta_4 FD_{it} + \beta_5 RFDR_{it} + \beta_6 Size_{it} + \varepsilon \ ..... \ (3)$$

3. Results and Discussion (Title Case and Bold)

Table 1 provide the information regarding the descriptive statistics of the study. Table 1 shows that the local government performance range from 1.575 to 3.540, with the mean and median values are 3.034 and 3.066 respectively. These results shows that local government performance are good. Further, the mean and median HDI index are 70.899 and 70.00 respectively. This table provide information that in average the HDI index of local government in Central Java is 70.889. It is still have a lot of room for

improvement for local government to achieve better human quality. Table 1 also shows that expectancy life have mean and median 74.597 and 74.425, while the maximum value is 77.550. The range of expected year of schooling are between 10.650 to 15.510, with the mean value of 12.596

TABLE 1: Descriptive Statistics.

	Mean	Median	Maximum	Minimum	Std. Dev.	Obs
LGPer	3.034	3.066	3.540	1.575	0.262	210
HDI	70.889	70.000	83.190	62.350	4.576	210
EYS	12.596	12.430	15.510	10.650	0.912	210
LE	74.597	74.425	77.550	67.900	1.946	210
PPP	10373.610	10103.000	15944.000	6911.000	1771.789	210
MYS	7.509	7.185	10.540	5.860	1.233	210
CER	0.181	0.174	0.346	0.043	0.048	210
ER	1.261	1.210	1.909	0.823	0.219	210
FDR	0.106	0.092	0.332	0.054	0.043	210
RFDR	0.378	0.381	0.419	0.254	0.024	210
SIZE	28.843	28.753	31.064	25.878	0.523	210

LGPer= local government performance; HDI = human development index; EYS = expected year of schooling; LE = expectancy life; LOG(PPP) = income per capita; CER = Capital Expenditure Ratio; ER = Efectiveness Ratio of the PAD; FDR = Fiscal Decentralisation Ratio; RFDR = Regional Financial Dependency Ratio; SIZE ln total assets. Sources: The Statistics Indonesia and Local Government Financial Statements

Table 2 provide the result of the effect of HDI to the local government performance in the Central Java province.

Table 2 shows the effect of HDI to the local government is significant at the 1% level. The sign is positive. Therefore, the HDI level have positive effect on the local government performance. The higher score of HDI, positively improve the level of local government performance. This result support the expectation that HDI support the local governent performance. The result of this study also support the previous study who found the HDI level improve the local government performance [10], reduce the economic inequality [6], and provide sources for economic growth[1-3]. This result also in line with Al-Nasser and Al Hallaq [12] who found the negative relationship between poverty and human development index in Jordan. On the other hand, this result do not confirm the result of Reyes and Useche [7] who found the no significant efefct of HDI to the economic growth.

Table 2 also provide the result of statistical testing for the sub index of HDI. The education aspect of HDI measure through two variables: expected year of schooling (EYS) and mean year of schooling (MYS). Table 2 show that both variable have no significant effect on the local government performance. Therefore, the education level

Table 2: The Statistical Result.

Variable	LGPer			
HDI	0.111	***		
EYS			0.030	
LE			0.291	**
LOG(PPP)			1.219	**
MYS			0.060	
CER	0.162		0.079	
ER	-0.192	*	-0.187	*
FDR	1.172		1.808	
RFDR	1.777	*	2.070	**
SIZE	-0.007		-0.013	
C	-5.210	***	-31.137	***
R-squared	0.620		0.631	
Adjusted R-squared	0.530		0.535	
F-statistic	6.903		6.597	
Prob(F-statistic)	0.000	***	0.000	***

*, **, *** siginifcant at 10%, 5%, 1%. LGPer= local government performance; HDI = human development index; EYS = expected year of schooling; LE = expectancy life; LOG(PPP) = income per capita; CER = Capital Expenditure Ratio; ER = Efectiveness Ratio of the PAD; FDR = Fiscal Decentralisation Ratio; RFDR = Regional Financial Dependency Ratio; SIZE ln total assets. Sources: The Statistics Indonesia and Local Government Financial Statements

do not have significant impact to improve the local government performance. These result do not confirm the expectation, that expect the level of education positively affect local government performance. Further, the expectancy life have positive effect on the local government performance. Therefore, the higher level of expectancy level improve the local government performance. This result is in line with the expectation that life expectancy should provide positive impact ot achieve local government performance. Table 2 also show that purchasing power parity have positive effect on the local government performance. Therefore, table 2 show the importance of life expectancy and income per capita support the local government to achieve better performance.

Table 3 provide the statistical result of the relationship between HDI and local government future performance. In this study, the future local government performance proxied by t+1 (the next one year). The result of the study qualitatively the same with the result of table 2. HDI have positive effect on the future local government performance. This results support the expectation that HDI have significant effect to the local government performance. Further, the statistical result of the sub-index HDI show that the education aspect have no significant effect on the future local government

TABLE 3: The Effect of HDI to the future local government performance.

Variable	LGPer (t + 1)			
HDI	0.105	***		
EYS			0.074	
LE			0.246	**
LOG(PPP)			1.110	**
MYS			0.060	
CER	-0.309		-0.372	
ER	-0.171	**	-0.156	**
FDR	-1.020		-0.892	
RFDR	-0.944		-0.880	
SIZE	0.001		0.003	
C	-3.565	***	-26.225	***
R-squared	0.744		0.753	
Adjusted R-squared	0.667		0.671	
F-statistic	9.713		9.263	
Prob(F-statistic)	0.000	***	0.000	***

*, **, *** siginifcant at 10%, 5%, 1%. LGPer= local government performance; HDI = human development index; EYS = expected year of schooling; LE = expectancy life; LOG(PPP) = income per capita; CER = Capital Expenditure Ratio; ER = Efectiveness Ratio of the PAD; FDR = Fiscal Decentralisation Ratio; RFDR = Regional Financial Dependency Ratio; SIZE ln total assets. Sources: The Statistics Indonesia and Local Government Financial Statements

performance. While, the other two variables, expectancy life and income per capita, have positive effect to the future local government performance.

4. Conclusion

The current study focuses on the impact of HDI to the local government performance using local government. The result of the study shows the importance of HDI to improve the local government performance. Thus, the better of HDI index provides positive impact to the local government performance. Further test on the sub index of HDI show that both expectancy life and purchasing power parity have significant effect to local government performance. On the other hand, education aspect do not have significant effect to the local government performance.

This study uses sample from local governments at Central Java Province. Therefore, it is suggested that future study use broader sample such as local government at Java island or the local government in Indonesia context. It will provide better database. Since our study focus on the local government performance, therefore it is suggested

that future study consider other aspects such as local government performance from the financial aspect or povertor the income inequality.

Conflict of Interest

The authors declare that there is no conflict of interest.

Acknowledgement

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