THE EFFECT OF LOCAL TAXES, LOCAL LEVIES, MANAGEMENT OF SEPARATED REGIONAL WEALTH AND POPULATION ON THE HUMAN DEVELOPMENT INDEX IN CENTRAL JAVA PROVINCE

Ria Manurung[1], Suharno[2]*, Arintoko[2]

[1]Sekolah Tinggi Ilmu Komputer Yos Sudarso, ria.manurung74@gmail.com Indonesia
[2*]Universitas Jenderal Soedirman, suharno@unsoed.ac.id Indonesia
[2]Universitas Jenderal Soedirman, arintoko@unsoed.ac.id Indonesia
*corresponding author

ABSTRACT

This study aims to analyse the effect of local taxes, local levies, management of separated regional assets and population on the human development index in Central Java Province for the period 2019-2021. The dependent variable in this study is the human development index and the independent variables are local taxes, local levies, management of separated regional assets and population. The research data uses secondary data sourced from the Central Bureau of Statistics office. The amount of data is 35 consisting of 29 districts and 6 cities in Central Java Province. The data analysis method uses the eviews application. The results of data analysis concluded that local taxes, local levies, management of separated regional assets and population significantly affect the human development index in Central Java Province. Based on the results of the study, it can be concluded that the Human Development Index of local governments in Central Java is influenced by local taxes, local levies, management of separated regional assets and population. And when Regional Taxes, Regional Levies, Management of Separated Regional Wealth increase, the Human Development Index increases.

Keywords: Agency; District; Research; Statistics; Variable

1. Introduction

According to the United Nations Development Programme (UNDP), human development creates an environment that enables people to enjoy a long, healthy life and lead productive lives. Human development is the process of improving all aspects of people's lives. UNDP states that welfare is broader than just gross domestic income (GDP) or GDP per capita. A country's development strategy must be able to improve human resources in a sustainable manner. However, in reality, comprehensive national development cannot be carried out only by managing the authority of the central government. Therefore, the government has issued Law No. 32/2004 on Regional Government and Law No. 33/2004 on Financial Balance between Central and Regional Governments to equalize national development, especially in terms of improving the quality of human development (Jatmiko & Farhan, 2016).

These two laws are the starting point for regional autonomy. With the regional autonomy policy, local governments have the authority to create local revenues. Then make allocations for development priorities in their regions independently to further equalize development in accordance with local potential and aspirations, develop regions and improve community welfare.

The community should play a role as the subject of development, not just the object of development. So that the community can contribute to the progress of a region and also national progress. The process of advancing the growth of a region is indicated by the level of increase in GRDP and the Regional Budget (APBD). Regional development with the APBD is a form of local government intervention in advancing the region. (Belotti et al., 2021) explains that the government uses the APBD to finance development in sectors related to human development. Specifically, local governments must be able to allocate regional expenditures through development spending in supporting sectors to increase the Human Development Index (HDI) and to improve the quality of life of their people. The main sources of local finance used to finance local expenditure are local own-source revenues. local own-source revenues consists of local tax revenue, local levies, revenue from separated regional management, and other legal local own-source revenues (Hall & Kanaan, 2021).

The human development index is a comparative measurement of life expectancy, literacy, education and living standards for all countries around the world. The Human Development Index is used to classify whether a country is developed, developing or underdeveloped. It also measures the effect of economic policies on quality of life (Mulyani et al., 2021). The HDI consists of three categories: 1) Long life and healthy living (measured by life expectancy); 2) Educated (measured by adult literacy and primary, secondary and tertiary school enrollment rates); 3) Having a decent standard of living (measured by purchasing power parity, income). The concept of the Human Development Index has been adopted in Indonesia which is contained in the National Medium Term Development Plan (Naz, 2023).

The district/city governments in Central Java are given autonomy to manage regional wealth to organize the development of various public facilities and infrastructure in the context of quality human development which is realized in the increasing Human Development Index (HDI) (Au, 2023). The human development index is an indicator of the level of community welfare. Local governments can better utilize the potential of their respective regions as a source of funding in development, in addition to the transfer of funds from the central government through balancing funds. Based on data obtained from the Central Statistics Agency (BPS), it shows the phenomenon of HDI in districts / cities in Central Java in 2019-2021 which has increased from year to year. The increase in HDI is also accompanied by an increase in population in almost all districts / cities in Central Java. The population that increases from year to year can also affect the level of PAD through local taxes and levies. Based on data obtained from the Central Statistics Agency (BPS) in 2019-2021, it shows an increase in PAD from local taxes and levies for districts / cities in Central Java.

This study aims to see the extent to which the influence of PAD (local tax revenue, local levies, revenue from separated regional management) and population has an effect on increasing the human development index in district / city local governments in Central Java for the period 2019 to 202.

2. Literature Review

2.1 Previous Research

Research conducted (Mulyani et al., 2021) with the title "Driving Factors for Local Government Self-Financing Ability". The purpose of the study was to determine the effect of local taxes, local levies and economic growth rates on the independence of regional development in regencies / cities in West Java for the 2011-2018 period, both partially and simultaneously. The

variables used are local taxes, local levies, economic growth rates and regional development independence ratios. The data analysis method uses descriptive and verification analysis with saturated samples. The research sample was 40 sample data with 5 districts / cities, namely Cirebon City, Cirebon Regency, Majalengka Regency, Indramayu Regency and Kuningan Regency in the 2011-2018 period. The research analysis tool uses multiple regression analysis. The results showed that partially Local Taxes have a significant effect on Regional Development Independence, Local Levies have a significant negative effect on Regional Development Independence and the Economic Growth Rate has no effect on Regional Development Independence. However, simultaneously shows that Local Taxes, Local Levies and Economic Growth Rate have a significant effect on Regional Development Independence.

The next research (Hall & Kanaan, 2021) with the title "State Tax Policy, Municipal Choice, and Local Economic Development Outcomes: A Structural Equation Modeling Approach to Performance Assessment". Texas allows municipal-level economic development corporations to levy a local option sales tax (LOST). This is done to effectively and exclusively divert revenue to local economic development. Based on a performance management framework that focuses on policy outcomes, the authors used structural equation modeling to estimate the impact of local option taxes on economic development performance. The results explain that municipalities that implemented local option sales tax choices (efforts related to traditional industries) experienced significant and positive impacts on economic development as measured through latent constructs assessing population growth, property values, and new home construction over five years. The observed impact of tax choice, while weaker than the pre-existing economic capacity of cities, suggests that states and cities can influence economic development activities by allowing cities to allocate and prioritize tax revenues for economic development.

Another study is (Belotti et al., 2021) with the title "The Effect of Local Taxes on Firm Performance: Evidence From Geo-Referenced Data". This study analyzes the effect of local property taxes for businesses on the performance of manufacturing companies in Italy. Researchers apply pairwise differential spatial estimators. Researchers also exploit exogenous variations in local property tax rates caused by the political alignment of local and central governments. The results explain that business property tax has a considerable negative impact on unstable tangible assets, employment, and value added. The results interpret the existence of a distortion mechanism. When heavy equipment is included in the business property tax base, the business property tax will suppress investment and encourage firms to reduce output and downsize.

The next research is (Jatmiko & Farhan, 2016) with the title "Key Success Factor of Local Revenue Toward City and District Government Performance In Yogyakarta". The research objective is to obtain empirical evidence of the influence of local taxes, local levies, the results of the management of separated regional assets, and others on the performance of local revenue. The research method uses quantitative methods with secondary data from the financial statements of all districts and cities in the Special Region of Yogyakarta (Yogyakarta City, Sleman, Bantul, Kulon Progo, Gunung Kidul). The results of the study explain that local taxes have a significant positive effect on the financial performance of local governments, while local levies have no effect on the financial performance of local governments. Then BUMD has no effect on the financial performance of local governments while other legitimate local revenue has no effect on the financial performance of local governments. Then Regional Original Income has a positive and significant effect on the financial performance of local governments.

The difference between this research and previous research is that the research variable adds population as an independent variable. The dependent variable in this study is the Human

Development Index. This study will analyze the extent to which Regional Taxes, Regional Levies, Management of Separated Regional Wealth and Population can affect the Human Development Index in Central Java Province.

2.2 Local Taxes

Local taxes are mandatory contributions from individuals or entities to local governments without direct reciprocity that can be appointed. Local taxes are compelling based on the Regional Tax and Retribution Law Number 28 of 2009 (Kiros, 2023). Local taxes are the original revenue of the region itself and are an important source of local revenue. The greater the amount of local tax revenue, the greater the amount of local revenue.

2.3 Regional Retribution

According to Law No. 28 of 2009 on Regional Taxes and Levies, regional retribution is a Local levies are payments for services or certain licenses specifically provided and/or granted by the Local Government for the benefit of individuals or entities. Local retribution is divided into 3 types, namely:

* General Services Retribution is a levy on services provided or given by the local government for the purpose of public interest and benefit and can be enjoyed by individuals or entities.
* Retribution on Business Services is a levy on services provided by regional assets that have not been optimally utilized and/or services by the regional government insofar as they have not been able to be adequately provided by the private sector.
* Specific Licensing Retribution is a levy on certain licensing services by the local government to individuals or entities which is intended for the regulation and supervision of space utilization activities, the use of natural resources, goods, facilities, or certain facilities in order to protect the public interest and preserve the environment.

3. Research Methodology

3.1 Framework of Thought

The framework of thought is the basis or foundation in the development of various concepts and theories in research and connects them to the formulation of the problem. The framework of this research is as follows:

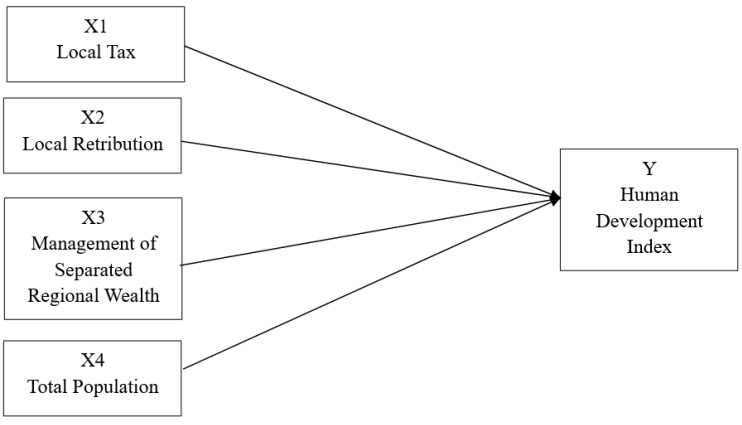

Figure 1 Framework of Thought

The object of research uses the Budget Realization Report of the Regency/ City in Central Java Province in 2019-2021. This study uses secondary data from the Indonesian Central Statistics Agency (BPS) (www.bps.go.id) and the National APBD Posture (https://djpk.kemenkeu.go.id/portal/data/apbd). The quantitative data of the study were 305 from 35 districts / cities in Central Java Province. The research variables, namely the Independent variables include Regional Taxes, Regional Levies, Management of Separated Regional Wealth, and Population while the Dependent variable is the Human Development Index. The research sample is a saturated sample (the entire population is taken as a sample) of 305 consisting of 29 districts and 6 cities. The data collection technique uses the documentation study method. The research data analysis technique uses multiple linear regression with the EViews application tool. The equation of the multiple analysis is as follows:

$$Y = a + b1\ X1 + b2\ X2 + b3\ X3 + b4\ X4 + e \quad \text{..... (1)}$$

Description:

Y	: Human Development Index
X1	: Local Tax
X2	: Local Retribution
X3	: Management of Separated Regional Wealth
X4	: Total Population
a	: constant
b1, b2, b3, b4	: regression coefficient
e	: confounding variables with a significance level of 5%

3.1 Hypothesis Development

The t statistical test is to see the effect of the independent variable on the dependent variable with the assumption that other variables are considered fixed. The real level used is e = 5%. The t test criteria are H0 accepted if tcount ≤ ttabel , otherwise H0 is rejected if tcount ≥ ttabel . Then the research hypothesis can be explained as follows:

H1 : Local taxes affect the Human Development Index of Regency / City in Central Java Province.

H2 : Regional Retribution affects the Human Development Index of Regency / City in Central Java Province.

H3 : Separated Regional Wealth Management affects the Human Development Index of Regency/ City in Central Java Province.

H4 : Total Population affects the Human Development Index of Regency / City in Central Java Province.

4. Results

Common effect model is the most basic model or estimation method in panel data regression, which still uses the principle of ordinary least square. Therefore, this method is also called pooled least square. In this common effect model, it does not pay attention to the time dimension as well as the individual or cross section dimension, so it can be assumed that the behaviour of individuals does not differ over time.

Dependent Variable: Y
Method: Panel Least Squares
Date: 07/13/23 Time: 19:19
Sample: 2019 2021
Periods included: 3
Cross-sections included: 35
Total panel (balanced) observations: 105

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	76.11083	0.661819	115.0025	0.0000
X1	3.63E-11	5.04E-12	7.197444	0.0000
X2	-5.84E-09	4.74E-09	-1.232579	0.2206
X3	-2.57E-11	2.68E-11	-0.960495	0.3391
X4	-7.04E-06	6.23E-07	-11.30702	0.0000

R-squared	0.683026	Mean dependent var	72.58343
Adjusted R-squared	0.670347	S.D. dependent var	4.386976
S.E. of regression	2.518800	Akaike info criterion	4.731890
Sum squared resid	634.4353	Schwarz criterion	4.858269
Log likelihood	-243.4242	Hannan-Quinn criter.	4.783101
F-statistic	53.87085	Durbin-Watson stat	0.118202
Prob(F-statistic)	0.000000		

R Square is the influence or ability of the predictor variable (X) simultaneously in explaining the response variable. If the value is more than 0.5, the ability of the predictor variable is strong in explaining the response variable (Y). On the other hand, if the value is less than 0.5, the ability of the predictor variable is not strong in explaining the response variable. The results of the panel data processing above explain that the R Square value is 0.683026, which means that variable X (Local Taxes, Local Levies, Management of Separated Regional Wealth and Population) is very strong in explaining the Human Development Index variable (Y).

Adjusted R Square: is the magnitude of the influence or ability of the predictor variables simultaneously in explaining the response variable by taking into account the standard error. the explanation is the same as R Square but this value has been corrected with a standard error.

F-Statistics: is the value of the F Test which is a simultaneous test of panel data regression. This F-value shows the significance of the effect of the predictor variables on the response variable. To use this F value, it must be compared with the F Table. But for convenience, you can directly see the Prob (F-Statistics) value. Prob (F-Statistics): is the p value of the F test which is the significance level of the F value, which is to assess the simultaneous effect of predictor variables on the response variable whether statistically significant or not. If the p value is less than the critical limit, for example 0.05, then accept H1 or which means that the simultaneous effect of predictor variables on the response variable is statistically significant. On the other hand, if the p value is more than the critical limit, then accept H0 or which means that the simultaneous effect of the predictor variables on the response variable is not statistically significant.

Dependent Variable: Y
Method: Panel Least Squares
Date: 07/13/23 Time: 19:36
Sample: 2019 2021
Periods included: 3
Cross-sections included: 35
Total panel (balanced) observations: 105

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	67.45969	0.700215	96.34143	0.0000
X1	2.26E-11	4.48E-12	5.049533	0.0000
X2	1.28E-09	4.45E-10	2.874419	0.0054
X3	6.54E-12	3.71E-12	1.760655	0.0829
X4	1.80E-06	4.27E-07	4.224686	0.0001

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.998804	Mean dependent var	72.58343
Adjusted R-squared	0.998115	S.D. dependent var	4.386976
S.E. of regression	0.190450	Akaike info criterion	-0.200300
Sum squared resid	2.393905	Schwarz criterion	0.785457
Log likelihood	49.51576	Hannan-Quinn criter.	0.199148
F-statistic	1450.432	Durbin-Watson stat	2.379367
Prob(F-statistic)	0.000000		

The data used is significant, this can be seen from the probability value of the variables X1, X2, X3, and X4 is still below alpha 0.05, so the data is significant. The results still show a positive value (coefficient x), which means that when the independent variable increases, the dependent variable increases. The correlation is 0.998804 (R-Squared or you can also use the Adjusted R-Squared value), so that the independent variable has an influence of 99%, the remaining 1% is influenced by other variables (100%-99%).

5. Conclusion

Based on the results of the study, it can be concluded that the Human Development Index of local governments in Central Java is influenced by local taxes, local levies, management of

separated regional assets and population. And when Regional Taxes, Regional Levies, Management of Separated Regional Wealth increase, the Human Development Index increases.

References

Au, A. (2023). Reassessing the econometric measurement of inequality and poverty: toward a cost-of-living approach. *Humanities and Social Sciences Communications*, *10*(1). https://doi.org/10.1057/s41599-023-01738-3

Belotti, F., Di Porto, E., & Santoni, G. (2021). The effect of local taxes on firm performance: Evidence from geo-referenced data. *Journal of Regional Science*, *61*(2). https://doi.org/10.1111/jors.12518

Hall, J. L., & Kanaan, D. Z. (2021). State Tax Policy, Municipal Choice, and Local Economic Development Outcomes: A Structural Equation Modeling Approach to Performance Assessment. *Public Administration Review*, *81*(3). https://doi.org/10.1111/puar.13165

Jatmiko, B., & Farhan, M. (2016). Key success factor of local revenue toward city and district government performance in Yogyakarta. *International Journal of Economic Research*, *13*(4).

Kiros, Y. (2023). Loan repayment performance and its determinants: evidence from micro and small enterprises operating in Dire-Dawa, Ethiopia. *Journal of Innovation and Entrepreneurship*, *12*(1). https://doi.org/10.1186/s13731-023-00271-6

Mulyani, H. S., Sudirno, D., & Hakim, A. (2021). Driving Factors for Local Government Self-Financing Ability. *IOP Conference Series: Earth and Environmental Science*, *748*(1). https://doi.org/10.1088/1755-1315/748/1/012028

Naz, A. (2023). Linkages between different types of globalization and socio-economic variables: panel data analysis for 129 countries. *Journal of Economic Structures*, *12*(1). https://doi.org/10.1186/s40008-023-00301-2