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# EXPENDITURE ON EDUCATION, HEALTH AND PDRB PER CAPITA ON THE GINI RATIO CITY IN THE EAST JAVA PROVINCE OF INDONESIA

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### ABSTRACT

This study is to determine the effect of government expenditure in the education, health sector and GDP per capita towards the Gini Ratio of 38 Cities in East Java from 2010 to 2016. Quantitative analysis, explanatory method with panel data. The process of selecting panel data with data normality test through estimating common effect, model parameters, fixed effects or random effects. the selection of the right model using a panel data regressiThe index value of gini districts/cities in East Java is quite volatile, on model that is processed using software e-views 10. The results of the study show; The level of income inequality each district/city has a moderate stage gap. The index value of gini cities in East Java is quite volatile, the highest scores of Madiun City, Malang City, Blitar City, and Pasuruan City. Education spending, health spending, and GDP per capita partially each has a significant positive effect on the Gini ratio City in East Java. Education spending, health spending, and GDP per capita together have a significant positive effect on the Gini ratio of districts/cities in East JavaThe Gini Ratio is one model of approach to economic growth and fair economic. one of them is through the tax and subsidy sector in the population of a region. Education sector spending, health sector spending, goods/services expenditure such as roads, bridges, airports, terminals, ports. Education and health sector expenditure that's the most important thing for increasing economic growth and fair economic equality.

Keywords: Education Expenditure, Health Expenditures, GDP per capita, Gini Ratio.

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# **1. INTRODUCTION**

Indeed economic growth is one indicator of the prestige of economic activities in a region. Economic growth is characterized by an increase in goods and services. Economic growth has been measured so far through changes in national income or Gross Regional Domestic Product (GRDP) in each region. The increase in GRDP cannot explain the level of income balance in an area (Marantika, P, Viphindrartin, & Viphindrartin, 2018). But on the other hand there are still many concepts that need to be considered in making economic growth a measure of the welfare level of an area. Some aspects that need to be considered are the level of education, health and welfare of the population must also be an important concern for the government and society. The human development index suggests not only goods and services, but the quality of the population must also be improved in a better direction. Equitable results of economic growth must also be enjoyed by all population, not only enjoyed by a group of people, where the problem of inequality is one of the important concerns in reducing poverty, especially in poor and developing countries (Putro, Mintarti, & Wijaya, 2018).

The Gini Ratio is one model to measure the extent to which the inequality of lovers of economic growth can be felt by the entire population. Certain instruments must be implemented into economic activities. The higher value of the gini ratio shows the higher level of inequality from a region and shows an uneven income distribution between high-income and low-income people (Berman, Ben-Jacob, & Shapira, 2016). The impact of increasing purchasing power and the income disparity of the community. East Java Province which consists of 28 districts and 9 cities has different characteristics, population and economic potential. There is a dominance of the agricultural sector, the dominance of the mining and industrial sectors. Some call themselves fertile areas, there are dry areas. That is the name for cities that have the number and quality of the population and unequal economic potential. This difference has the consequence of differences in tax revenues, regional levies, regional original income and different expenditure budget plans. These budget policies included in the fiscal policy of goods will certainly have an impact on the even income of the community (Aziz, Laila & Prihantono, 2016). Capital expenditure is one part of the regional expenditure revenue budget. These include education spending, health spending, community welfare and other infrastructure expenditures (Behera & Dash, 2018). Therefore, regional income and expenditure budgets are a reference in the study of the composition of expenditure on the total gross domestic product of the respective cities.

Referring to data from the Central Statistics Agency (BPS), that East Java Province has contributed 30 percent to Indonesia's total GRDP. Secondary sector and tertiary sectors from manufacturing, industry and services/trade. The dominance of the trade, finance, banking and services sectors in the total GRDP of cities in East Java is concentrated in cities such as the City of Surabaya, Sidoarjo Regency, South Sumatra Regency, Pasuruan Regency, Malang District, Mojokerto Regency and Kediri City. Circulation and accumulation of goods, capital, and services are in the district-city area (BPS, 2017). Therefore, cities in East Java are interesting to study further. Based on the background above, there is a need to study; (a) At the level of inequality like what has a gap in income for each city in East Java; (b) Education expenditure, health expenditure, and Perkapita GRDP partially have an influence on the Gini

### Expenditure on Education, Health And Pdrb Per Capita on the Gini Ratio City in the East Java Province of Indonesia

ratio of the City in East Java; (c) Education expenditure, health expenditure, and GDP per capita together have an influence on the Gini ratio of cities in East Java.

# 2. THEORITICAL REVIEW

It seems the same meaning of economic growth with economic development and economic shifts. It's different. Economic growth is the increase in goods and services in a given year in a certain period in a particular area. Economic growth will increase thanks to three things; economic potential, capital accumulation, technology (Samuelson, 2104). There are three approaches to calculating economic growth; production, income and expenditure. Whereas economic development is interpreted besides the increase in goods and services also followed by an increase in the presence of human development in the fields of education, health, and the welfare of its population. Economic development is not solely measured based on an increase in GNP as a whole, but must pay attention to the distribution of income spread to all levels of society, and who has enjoyed the results (Todaro, 2004).

The economic shift is interpreted as a shift between sectors to other sectors; shifting better from the primary agricultural sector to the secondary sector of manufacturing production then shifted to the tertiary sector of trade, services, finance and banking. One of the characteristics of a developed region is the existence of population economic activities which are dominated by tertiary sectors namely trade, services, finance and banking. Business transactions are very easy to do. Liquidity of goods and services is easily exchanged. The mobility of goods and services is very high. Infrastructure is well available. Capital traffic is very easy to do.

Gini Ratio is a tool to measure the level of disparity in the distribution of relative income between residents of a country or region. But keep in mind that the economic growth of a region that is high is not necessarily felt by all its citizens equally. The gini ratio with the Lorenz curve illustrates that economic growth can be done using an equalization approach through the Gini Ratio model (Jhingan, 2007).



Figure.1 Lorenz curve

Because it could be that economic growth is only enjoyed by a group of individuals (call it a conglomerate). Because they are the ones who master the resources of the production factors that have been given freedom by the government to explore and produce a product. To exploit and explore the economic potential of a region's production resources. Schumpeter (Samuelson, 2014) believes that economic growth will rapidly increase when entrepreneurs are given the freedom to manage production factors. Because the entrepreneurs who have innovation and technology to process these factors of production.

Per capita GRDP is the calculation of the total increase in goods and services in a given year in a given period and a certain area is leveled to the entire population in the region. Gini This ratio is famous for the Lorenz curve which explains how important economic growth is distributed to the entire population evenly. Most do not approach equity. Evenly absolute is not possible, but the unevenness should not be left out. Kuznets (1995) the relationship between the level of income distribution and the level of economic development takes the form of an inverted U curve. Beginning of economic development, income distribution will cause higher income gaps, but as the economy matures, the income gap will decline slowly after passing the peak.

Do not let economic growth only be enjoyed by a group of people, call it a conglomerate or bourgeoisie. Governments according to the Keynesian recommendations must participate in economic activities through regulatory, allocation, distribution and stability of economic resources owned. Government spending is one of the expenditure ratios of the total GRDP of cities in East Java. This expenditure consists of education sector expenditure, health sector expenditure, as well as physical infrastructure expenditure. Although these are all free factors that can affect the income distribution of the population. It is possible that economic growth and the welfare of the population are associated with equal distribution of economic growth results with the Gini ratio as a factor that is influenced. Conceptually the analytical framework can be described;



# **3. RESEARCH METHODS**

Objects studied were 38 cities from 2010 to 2016. Secondary data sources were obtained from the Central Java Provincial Statistics Agency. Data collected and processed data on government expenditure in education sector, health sector and per capita income as exogenous variables and the value of the gini index ratio as endogenous variables. Using quantitative analysis, explanatory methods with panel data. The process of selecting panel data by conducting a normality test through estimating common effect model parameters, fixed effects or random effects and selecting the right model using the Regression Model which is processed using software e-views 10. Test the assumptions and interpret the selected models exogenous variables affect endogenous variables.

# 4. RESEARCH RESULTS AND DISCUSSION

Descriptively the gini ratio in each city in East Java shows that the level of income inequality in the province of East Java between each city has a gap at the middle stage which is indicated by the average value between 0.2 - 0.5. The highest occurred in 2016 at 0.35. The index value of the city gini in East Java is quite fluctuating with the highest value in 2016, in fact it occurs in cities, namely City of Madiun 0.42, City of Malang and City of Blitar at 0.41, and City of Pasuruan at 0.40.

City Panel Data Regression Analysis of East Java Province through the likelihood ratio test obtained a probability value of 0,000, the fixed effect model is more appropriate to use than

the common effect. Followed by a hausmant test and obtained a probability of 0,000 or less than a significance value of 0.05, the random effect model is more appropriate to use than the fixed effect, so that through an exogenous random effect variable approach to endogens obtained results:

Variabel dependen : Rasio Gini			
Independen	coefisien	t-statistik	Prob
Belanja Pendidikan	-0,0001	-2,572	0,0100
Belanja Kesehatan	0,000	4,912	0,0002
PDRB Perkapita	0,033	4,798	0,0000
R-square	0,192		
Adjust R-square	0,183		
F-Statistik	20,470		
Prob. F-Statistik	0,000		

Source: results of data processing (2018)

Through the table above the panel data regression equation is obtained; Gini Ratio = 0.138- 0.01 Education Expenditures + 0.0002, health expenditure + 0,000, Perkapita GRDP + e. Partial test (t test) at a significance level of 0.05, if the significance level is below 0.05 then it has a significant effect on dependent variable (Widarjono: 2009). Based on the table above the probability of education spending amounting to 0.01 less than 0.05 can be interpreted that education spending has a significant influence on the gini ratio. The findings of this study support previous research, namely research from (Herry, Adhi, & Firmansyah, 2018) which concluded that public facilities that are the result of government expenditure have a significant influence on the even distribution of income measured by the gini ratio. The probability of health expenditure amounting to 0.0002 less than 0.05 can be interpreted that health expenditure has a significant effect on the gini ratio. These results support the research conducted by (Wahyuni, Sukarsa & Yuliarmi, 2014) which concluded that government expenditure has a significant influence on the gap in income distribution in the City of Bali Province. The next variable is GDP per capita has a probability of 0,000 less than 0.05. It means that per capita GRDP has a significant influence on the gini ratio. These results indicate support for research from (Meydiasari and Soejoto, 2017) which concluded that the income per capita of the community is one of the factors that have a significant influence on the gini ratio.

Simultaneous tests (F test) of the analysis obtained a probability value F-statistic of 0,000 or less than 0.05 indicating education spending, health expenditure, and GDP per capita jointly had an influence on the gini ratio. From the R-square test it is known that the R-square value of 0.192 explains that Education expenditure, Health expenditure and Perkapita GRDP affect the gini ratio of 19.2 percent and the rest is 80.8 percent influenced by other variables not examined in this study.

Education spending, health spending and GRDP have a significant positive effect on the ratio of cities in East Java, both partially and simultaneously. Even though the effect is small, accumulated. This shows that city governments in East Java need to increase the amount in allocating government budgets to the education sector and the health sector and the goods/services sector. This supports the theory of economic growth and economic development that has been suggested by previous experts that human development is as important as the construction of physical infrastructure. In fact it seems that human development needs to be a priority in development. In accordance with the state budget allocation for education by 30 percent. Improving education and health can increase innovation and accelerate the transfer of production technology. The existence of technology, production becomes more efficient,

increases the volume and production capacity. In Malthus's theory states although indeed population growth is growing in a series of measures while production capacity will encourage economic growth in a series of counts (Samuelson, 2014). More important is how to balance between the two. More appropriate economic growth is implemented into economic development programs that are more meaningful in terms of equity, proportional justice. The increase in goods and services continues to be increased, but also followed by an increase in the human development index through increased education, health and welfare of the population through income disparities. Reducing inequality between one another. The Gini ratio is the model. Adequate residents can subsidize residents who have not been fortunate. The main objective of economic growth is to increase the welfare of the population in various sectors equally.

The contribution of this study is only 19 percent, preferably there is 81 percent further research using more variables, aside from spending on education, health and GRDP in this study.

# **5. CONCLUSION**

Based on the results of the research and discussion it can be concluded;

- 1. The level of income inequality of each city has a moderate gap. The index value of the city gini in East Java is quite fluctuating with the highest values of Madiun City, Malang City, Blitar City, and Pasuruan City.
- 2. Education spending, health expenditure and Perkapita GRDP partially have a significant positive influence on the Gini ratio of cities in East Java.
- 3. Education expenditure, health expenditure and Perkapita GRDP together have a significant positive effect on the Gini ratio of cities in East Java.
- 4. Education sector spending, health sector expenditure, goods/services expenditure are no less important than infrastructure spending such as roads, bridges, airports, terminals, ports. Education and health sector spending is precisely the most important for increasing economic growth and equitable development.

# RECOMMENDATION

From this research, it is expected to provide recommendations for municipal governments in East Java that the education and health budget and patent GRDP need to be increased continuously. Because the effect is significant on the gini ratio of cities in East Java.

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