



Analysis of Poverty and Inequality in Java, Bali, and Lampung

Achma Hendra Setiawan[✉], Edy Yusuf Agung Gunanto², Banatul Hayati³

^{1,2,3}Faculty of Economics and Business, Diponegoro University

Article

Information

History of Article

Received October 2019

Accepted December 2019

Published February 2020

Keywords:

Poverty, Inequality,
Sector

Abstract

According to Central Statistic Agency, the largest distribution of the poor in Indonesia is on the island of Java and the surrounding provinces of Banten, West Java, Central Java, D.I. Yogyakarta, Bali and Lampung, of the total poor population in Indonesia, the Seven Provinces contributed 15.71 million to the poor. This study aims to analyze Farmer Exchange Rates, Growth of the manufacturing sector, growth of the agricultural sector, Average Length of Education, Percentage of people working in the informal sector on poverty levels, analyze the effect of the ratio of productivity of the industrial sector to the agricultural sector, and the ratio of education to inequality income and analyze the relationship between poverty levels and income inequality in Java, Bali, Lampung. The method used is panel data analysis (pooled data) and correlation analysis as a data processing tool using the Eviews program 9. The results of this study indicate that the influence of the industrial sector is greater than the agricultural sector in reducing poverty, which is -0.47% : -0.40%. *Nilai Tukar Petani* (NTP) and the ratio of informal education are not significant to poverty, informal education has a positive relationship with poverty, the ratio between the productivity of the manufacturing sector compared with the productivity of the agricultural sector is significant in reducing existing inequality and the ratio of basic education level is not significant to inequality.

INTRODUCTION

Poverty is a major problem in development. Poverty is a complex and multidimensional problem. In Indonesia, the Seven Provinces contributed 15.71 million of the poor to Indonesia's 27.77 million or 56.57% in 2017.

Therefore, poverty alleviation efforts must be made as one of the priority programs, especially for the government area. There is a tendency for provincial poverty in Java, Bali and Lampung Provinces to decline. There was a decrease in the Percentage of poverty from 57.76% in 2013 to 56.57% in 2017.

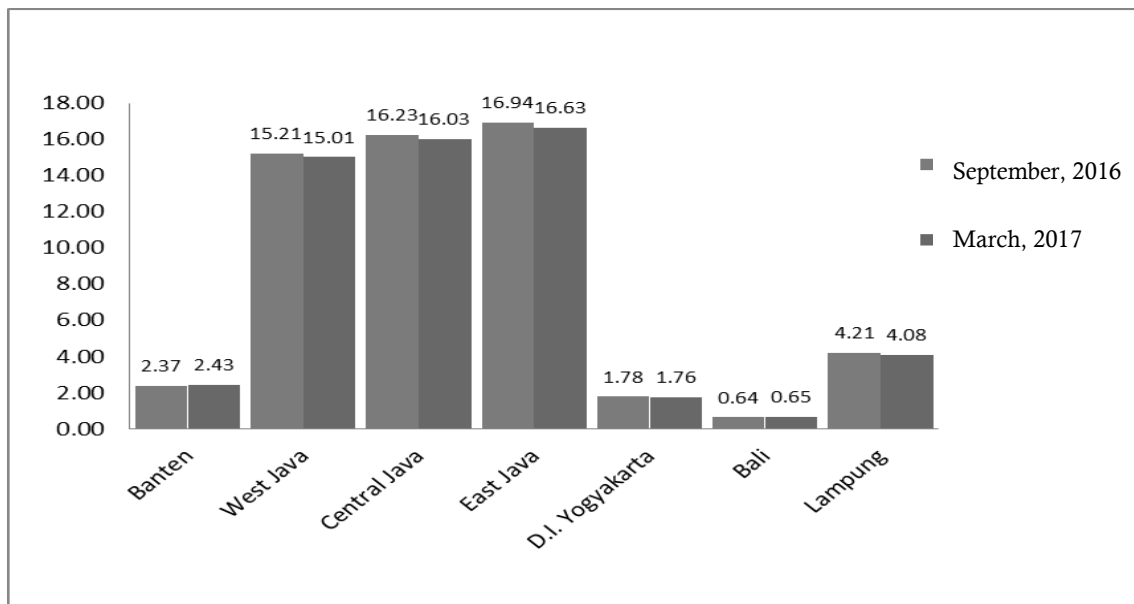


Figure 1. Percentage of Poor Population in Java, Bali Province, and Lampung Province in 2016 - 2017

Source: Central Statistic Agency, 2017.

Inequality of community income is caused by inequality in community productivity. Community productivity in the agricultural sector is different from productivity in the manufacturing industry sector, or the financial sector and the telecommunications sector. In 2017 the manufacturing sector contributed 35.54% and the agricultural sector contributed 12.03. Imai et al. (2017), Based on a cross-country panel dataset, we find that (i) increasing population in agriculture is related to poverty alleviation after long-term poverty changes or dynamics are taken into account; (ii) the non-agricultural agriculture sector also reduced poverty in some cases; and (iii) increasing

population in mega cities has no role in poverty alleviation. Another factor that also affects income inequality is the education ratio. There are several determinants of poverty levels in Java, Bali, Lampung, namely Farmer Exchange Rates, Growth of the manufacturing industry sector, growth of the agricultural sector, Average Length of Education, Percentage of people working in the informal sector. Poverty can have an impact on income inequality in society. Income inequality is caused by differences in labor productivity in the industrial sector and the agricultural sector. The ratio of productivity of the manufacturing sector to the productivity of the agricultural sector is likely to

be the cause of income inequality. Poverty in Java, Bali, Lampung shows a declining trend, how and what factors are causing poverty rates to decline. Likewise, the Gini index shows a decrease, how and what factors as a determinant of the decrease in the inequality index in Java, Bali Province and Lampung Province.

RESEARCH METHODS

The data used in this study are secondary data. Secondary data includes research data that has been published by the Central Statistics Agency as well as literature relating to research topics. Secondary data used are time series data for the period 2008-2017 and cross-section data covering provinces in Java including West Java, Banten, Central Java, *Daerah Istimewa Yogyakarta* and East Java. This research method is quantitative analysis with regression models, tobit analysis and quantitative correlation analysis to determine the determinants of poverty levels and income inequality.

Farmer exchange rate is a comparison between the price index received by farmers and the price index paid by farmers in percentage. In theory, *Nilai Tukar Petani* (NTP) has no direct effect on poverty, NTP will directly affect the income and benefits received by farmers. If the first time through falls, the profits received by farmers will be less or even suffer losses. High and low income of farmers will have an impact on the welfare seen in poverty levels.

Growth of the Manufacturing Industry Sector, besides the Gross Regional Domestic Product (GRDP) is an indicator of regional development, it also functions as a benchmark in seeing the level of welfare of a region. When the role of the industrial sector has increased, there has been a shift from the agricultural sector to the modern industrial sector including the manufacturing and service industries. In this economic transition, labor productivity in the modern sector is higher than the productivity of the agricultural sector so that income per capita in the modern sector will be higher. The higher income per capita will have an impact on the welfare seen in poverty levels.

Agriculture Sector Growth, the process of transforming the structure of the economy towards industrialization and increasing the role of modern sectors (industry and services) in Indonesia's development history, where the agricultural sector which was previously the primary sector received less attention and does not guarantee the linkage of the development of the modern sector with the agricultural sector.

Average Education Duration, the average length of school indicates the higher level of formal education achieved by the community in an area. The higher the average length of school the higher the level of education that has been undertaken. The average length of school indicates the higher formal education achieved by the community in an area. The higher the average length of school verarti, the higher the level of education that has been undertaken. The higher the level of one's education, the faster the increase in expected results. Increasing income can reduce the poverty level of an area.

Through adequate education, poor people will get better opportunities to get out of poverty status in the future. Percentage of Communities Working in the Informal Sector, job status is a type of position of a person in doing work in a business unit/activity. The economic progress of a region is shown by the transformation towards decreasing unskilled laborers represented by informal sector workers. Through the transformation of workers from the informal sector to the formal sector, it is hoped that in addition to increasing the productivity of workers, it can also improve the welfare of the population in an area.

GRDP is one of the important indicators to determine the economic conditions in an area in a given period, both at current prices and at constant prices. GRDP can be used as one indicator to see the success of economic development in a region. GRDP can describe the ability of an area to manage its natural resources. If economic growth in each region experiences good development, it can reduce inequality.

Ratio of productivity of the Industrial Sector to the Agricultural Sector, the ratio of

productivity of the industrial sector to the agricultural sector means the ratio of productivity between the industrial sector to the agricultural sector for a year. The size of the productivity ratio in the industrial and agricultural sectors will affect income inequality, the greater the ratio of productivity between the industrial and agricultural sectors will have an impact on the increasingly unequal income distribution. Conversely, a smaller productivity ratio will have an impact on a more even distribution of income.

Basic Education Level Ratio, the ratio of basic education level is the ratio between the pure enrollment rate of elementary schools, junior high schools with high schools and colleges. Income inequality itself occurs because of over-education. The smaller the ratio of education, then illustrates that the pure participation rate, the higher the level of education completed. The high ratio of basic education levels is a picture that there are still many people who only complete education in the category of compulsory education and have not been able to continue to a higher level of education.

RESULTS AND DISCUSSION

Poverty and Inequality Conditions of Lampung Province, in March 2018, the number of poor people (population with per capita expenditure per month below the poverty line) in Lampung reached 1,097.05 thousand people (13.14), an increase of 13.31 thousand compared to the condition of September 2017 which amounted to 1083, 74 thousand people (13.04%) (Central Statistic Agency 2018).

The level of inequality in Lampung population expenditure measured by the Gini ratio was recorded at 0.346. This figure increased by 0.013 points when compared to the September 2017 Gini ratio of 0.333. Meanwhile, if compared with the March 2017 Gini ratio of 0.334 the Gini ratio increased by 0.012 points. The Gini ratio in urban areas in March 2018 was 0.367 compared to the September 2017 Gini ratio of 0.360. while the gini ratio in rural areas

in March 2018 was recorded at 0.317, an increase compared to the gini ratio in September 2017 of 0.301 points (Central Statistic Agency, 2018).

Poverty and Inequality in Banten Province, in March 2018, the number of poor population (population with per capita expenditure per month below the Poverty Line) in Banten reached 661.36 thousand people (5.24%), decreased by 38.47 thousand people compared to the condition in September 2017 which amounted to 699.83 thousand people (5.59%). The Percentage of poor people in urban areas in September 2017 was 4.6%, down to 4.38 % in March 2018. While the Percentage of poor people in rural areas in September 2017 was 7.81%, down to 7.33 % in March 2018 (Central Statistic Agency, 2018).

In March 2018, the level of inequality in Banten population expenditure measured by the Gini Ratio was recorded at 0.385. This figure is up 0.006 points compared to the September 2017 Gini Ratio of 0.379. The Gini Ratio in urban areas in March 2018 was recorded at an increase of 0.386 compared to the September 2017 Gini Ratio of 0.380. Gini Ratio in rural areas also increased from 0.270 in September 2017 to 0.283 in March 2018 (Central Statistic Agency, 2018). Poverty and Inequality Conditions in West Java Province, in March 2018, the number of poor people (population with per capita expenditure per month below the poverty line) in West Java decreased significantly, namely around 158.62 thousand people from 3,774.41 thousand people (7.83 %) in September 2017 to amounted to 3,615.79 thousand people (7.45 %) in March 2018. The poverty line (GK) of West Java has increased by 3.69% from IDR 354,679 per capita per month to IDR 367,755 per capita per month. GK in urban areas increased 3.89% from IDR 354,866 per capita per month to IDR 368,680 per capita per month. GK in rural areas increased by 3.13% from IDR. 353,103 per capita per month to IDR. 364,151 per capita per month (Central Statistic Agency, 2018). The Gini Ratio value has increased from 0.393 to 0.407. However, when viewed by region, the Gini Ratio value in

urban areas increased to 0.418 from 0.399 in the previous period, while in rural areas it actually declined slightly from 0.326 to 0.322 (Central Statistic Agency, 2018). The Gini Ratio value has increased from 0.393 to 0.407. However, when viewed by region, the Gini Ratio value in urban areas increased to 0.418 from 0.399 in the previous period, while in rural areas it actually declined slightly from 0.326 to 0.322 (Central Statistic Agency, 2018).

Poverty and Inequality Conditions in Central Java Province, in March 2018, the number of poor people (population with per capita expenditure per month below the Poverty Line) in Central Java reached 3.90 million people (11.32%), decreasing by 300.29 thousand people compared to the conditions in September 2017 which of 4.20 million people (12.23%). The Percentage of poor people in urban areas in September 2017 was 10.55%, down to 9.73% in March 2018. While the Percentage of poor people in rural areas also decreased from 13.92% in September 2017 to 12.99% in March 2018. During the period September 2017 - March 2018, the number of poor people in urban areas decreased by 99.42 thousand people (from 1.82 million in September 2017 to 1.72 million in March 2018 (Central Statistic Agency, 2018).

While in rural areas it has also decreased by 200.88 thousand people (from 2.38 million people in September 2017 to 2.18 million people in March 2018). The role of food commodities towards the Poverty Line is far greater than the role of non-food commodities (housing, clothing, education, and health). Contribution of Food Poverty Line to Poverty Line in March 2018 was recorded at 73.33%. This condition is not much different from the condition in September 2017 which amounted to 73.38%. The types of food commodities that have a big influence on the value of the Poverty Line in urban and rural areas are rice, filter clove cigarettes, chicken eggs, purebred chicken meat, sugar, tempeh, tofu instant noodles, onions and wet cakes. Meanwhile, for non-food commodities, the effects are housing, electricity, gasoline, education, health and toiletries. In the period September 2017- March 2018, both the

Poverty Depth Index (P1) and the Poverty Severity Index (P2) tended to decrease Central Statistic Agency, 2018).

Poverty and Inequality Conditions in East Java Province, in March 2018, the number of poor people in East Java reached 4,332.59 thousand people (10.98%), a decrease of 72.68 thousand people compared to the conditions in September 2017 which amounted to 4,405.27 thousand people (11.20%). The Percentage of poor people in urban areas in September 2017 was 7.13%, down to 7.06% in March 2018. While the Percentage of poor people in rural areas in September 2017 was 15.58 %, down to 15.30% in March 2018. During period September 2017 - March 2018, the number of poor people in urban areas rose by 2.16 thousand people (from 1,455.45 thousand people in September 2017 to 1,457.61 thousand people in March 2018), while in rural areas decreased by 74.85 thousand inhabitants (from 2,949.82 thousand in September 2017 to 2,874.97 thousand in March 2018) (Central Statistic Agency, 2018). In March 2018, the level of inequality in expenditure by the population of East Java measured by the Gini Ratio was recorded at 0.379. This figure is down by 0.036 points compared to the September 2017 Gini Ratio of 0.415. Gini Ratio in urban areas in March 2018 was recorded at 0.387, down compared to September 2017 Gini Ratio of 0.442. While the Gini Ratio in rural areas in March 2018 was recorded at 0.327, an increase compared to the September 2017 Gini Ratio of 0.317 (Central Statistic Agency, 2018).

Poverty and Inequality Conditions in the Province of D.I.Yogyakarta, the poverty line in the Special Region (D.I.) of Yogyakarta in March 2018 is IDR 409,744 per capita per month. In the last semester, there was an increase in the poverty line of 3.40% from the conditions in September 2017 which amounted to IDR 396,271 per capita per month. Food commodities still dominate the formation of the Poverty Line compared to non-food commodities (housing, clothing, education, and health). In March 2018, the contribution of the Food Poverty Line to the Poverty Line

amounted to 71.38%. While at the same time the Non-Food Poverty Line contributed 28.62%. The number of poor people in March 2018 on D.I. Yogyakarta as many as 460.10 thousand people. Meanwhile, the poor population in the period September 2017 was 466.33 thousand people. There was a decrease in the poverty population of 6.23 thousand people or 1.34% in the last one semester. The Poverty Depth Index (P1) in the March 2018 period also showed an improvement compared to September 2017. On the contrary, the Poverty Severity Index (P2) had increased compared to the previous semester (Central Statistic Agency, 2018). Poverty lines in the Regions Special (DI) Yogyakarta in March 2018 is IDR. 409,744 per capita per month. In the last semester, there was an increase in the poverty line of 3.40% from the conditions in September 2017 which amounted to IDR 396,271 per capita per month. Food commodities still dominate the formation of the Poverty Line compared to non-food commodities (housing, clothing, education, and health). In March 2018, the contribution of the Food Poverty Line to the Poverty Line amounted to 71.38%. While at the same time the Non-Food Poverty Line contributed 28.62%. The number of poor people in March 2018 on D.I. Yogyakarta as many as 460.10 thousand people. Meanwhile, the poor population in the period September 2017 was 466.33 thousand people. There was a decrease in the poverty population of 6.23 thousand people or 1.34% in the last one semester. The Poverty Depth Index (P1) in the March 2018 period also showed an improvement compared to September 2017. In contrast, the Poverty Severity Index (P2) had increased compared to the previous semester (Central Statistic Agency, 2018).

The results of the March 2018 Susenas processing show that the level of expenditure disparity in the population of the Daerah Istimewa (D.I.) Yogyakarta has increased compared to conditions one semester ago. The provincial Gini Ratio in March 2018 was recorded at 0.441 or an increase of 0.001 points compared to September 2017. In March 2018, the Gini Ratio in urban areas was 0.442

decreased compared to the September 2017 Gini Ratio of 0.447. Conversely, for rural areas the March 2018 Gini Ratio was 0.350 or an increase compared to the September 2017 Gini Ratio of 0.317 (Central Statistic Agency, 2018).

Poverty and Inequality in Bali Province, the number of poor people (residents with per capita expenditure per month below the Poverty Line) in March 2018 in Bali reached 171.76 thousand people (4.01%), down by 4.72 thousand people compared to the poor population in September 2017 which totaling 176.48 thousand people (4.14%). During the period September 2017 - March 2018, the Percentage of poor people in urban and rural areas decreased. The Percentage of poor people in urban areas in September 2017 was 3.46%, down to 3.32% in March 2018. Likewise the Percentage of poor people in rural areas fell from 5.42% in September 2017 to 5.38% in March 2018. During the period September 2017 - March 2018, the Poverty Line increased by 5.09%, from IDR 364,064 per capita per month in September 2017 to IDR 382,598 per capita per month in March 2018. In the period September 2017 - March 2018, Poverty Depth Index (P1) and Poverty Severity Index (P2) have increased. The Poverty Depth Index in September 2017 was recorded at 0.551 and in March 2018 it rose to 0.685. Likewise the Poverty Severity Index has increased from 0.120 in September 2017 to 0.178 in March 2018 (Central Statistic Agency, 2018).

Bali Province Gini Ratio in September 2017 was recorded at 0.379 and fell to 0.377 in March 2018. Based on residential areas, Gini Ratio in urban areas in March 2018 was recorded at 0.381. This figure increased by 0.004 points compared to the September 2017 Gini Ratio of 0.385. For rural areas, the March 2018 Gini Ratio was recorded at 0.317. This figure increased by 0.015 points compared to the September 2017 Gini Ratio of 0.302. Figure 2 shows the development of the Gini Ratio in Bali from March 2014 to March 2018 (Official Gazette of Statistics, Central Statistic Agency of the Province of Bali 2018) Poverty Level Analysis Analisis, the table shows the variables

that affect poverty levels in Java, Lampung and Bali. The Chow test shows the value (F count = 342.7057; p-value = 0.00), and the Hausmann

Test (value W = 222.4178; p-value = 0.00) so that the chosen model is the Fixed Effect Model (FEM).

Table 1. Result of Poverty Regression Equation Function (Fixed Effect Model)

Variable	Coefficient	Std. Error	t-Statistic	glejs test (Prob)
C	21.40922	2.078331	10.30116***	0.6017
Farmer Exchange Rates	-0.001393	0.001079	-1.291110	0.4425
GRDP Logs in the Manufacturing Industry Sector	-0.477294	0.116533	-4.095766***	0.5019
Agriculture Sector GRDP Log	-0.401375	0.152065	-2.639499***	0.8346
Average Years of Education (years)	0.208426	0.047417	4.395578***	0.0237
Informal sector workers (%)	0.000959	0.002281	0.420532	0.8209
R-squared	0.998259	Prob Jarque-Berra	0.165136	
Adjusted R-squared	0.997965	Chow Test (F)	342.7057	0.0000
F-statistic	3388.481	Hausmann Test	222.4178	0.0000
Prob(F-statistic)	0.000000			

*)significant by 10%; **)significant by 5%;

***)significant by 1%

The GRDP variable of the Manufacturing Industry Sector is significantly negative towards the poverty level with a coefficient of -0.477294, meaning that when the GRDP of the Manufacturing Industry Sector increases by 1%, the poor population will decrease by -0.477%. In line with the research of Suryahadi et al. (2009) in Indonesia that an increase in the GRDP of the manufacturing sector in the city by 1% will reduce the level of poverty both in villages and in cities by -0.02% ($\alpha = 1\%$). The Agricultural Sector GRDP variable is significantly negative towards the poverty level with a coefficient of -0.401375, meaning that when the agricultural sector GRDP goes up by 1%, the poor population will decrease by -0.4014%.

This result is in line with the research of Benfica et al. (2018) in Mozambique which assumes the level of exogenous productivity growth so that according to historical trends, it is produced that agricultural GDP increases 4.4% per year and Total GDP grows 6.9% per

year, this increase in GDP per capita reduces poverty from 51.3% in 2007 to 41.6% in 2017. The Agricultural Sector GRDP variable is significantly negative towards the poverty level with a coefficient of -0.401375, meaning that when the agriculture sector's GRDP rises by 1%, the poor population will decrease by -0.4014%. This result is in line with the research of Benfica et al. (2018) in Mozambique which assumes the level of exogenous productivity growth so that according to historical trends, it is produced that agricultural GDP increases 4.4% per year and Total GDP grows 6.9% per year, this increase in GDP per capita reduces poverty from 51.3 % in 2007 to 41.6% in 2017. The average length of Education variable is significantly positive on poverty levels with a coefficient of 0.208426, meaning that the average length of Education rises by 1 year, the poor population will increase by 0.2084%. This contrasts with Cameron's (2000) study of poverty and inequality in Java, that improving education will reduce poverty, as indicated by an increase in per capita income.

Farmer Exchange Rate Variables and informal workers are not significant on poverty levels, but the sign is coefficient according to the Farmer Exchange Rate hypothesis of -0.001393, and informal sector workers is 0.000959. Inequality Analysis, the table shows the

variables that affect inequality in Java, Lampung and Bali. The Chow test shows the value (F count = 8.837892; p-value = 0.00), and the Hausmann Test (value W = 8.389507; p-value = 0.0386) so that the chosen model is the Fixed Effect Model (FEM).

Table 2. Result of Inequality Regression Equation Function (Fixed Effect Model)

Variable	Coefficient	Std. Error	t-Statistic	glejser test (Prob)
C	-0.901684	0.444571	-2.028212**	0.8167
GRDP (%)	0.067049	0.022036	3.042638***	0.8015
Ratio of Productivity of the Manufacturing Industry Sector to the Agriculture Sector	-0.011532	0.004189	-2.753142***	0.4987
Basic Education Level Ratio	0.003681	0.004308	0.854395	0.3843
R-squared	0.560496	Prob Jarque-Berra	0.359610	
Adjusted R-squared	0.501458	Chow Test	8.837892	0.0000
F-statistic	9.493829	Hausmann Test	8.389507	0.0386
Prob(F-statisti)	0.000000			

*)significant by 10%; **)significant by 5%;

***)significant by 1%

The GRDP variable is significantly positive for inequality with a coefficient of 0.067049, indicating that when the GRDP increases by 1% it will increase the inequality (gini index) by 0.067. Variable The ratio of productivity of the industrial sector/agricultural sector is significantly negative to inequality with a coefficient of -0.011532, meaning that when the productivity of the industrial sector to the agricultural sector increases by 1 unit the inequality (gini index) will decrease by -0.011532.

Contradictory results were found in the research of Akita et al. (2011) that the GRDP of the manufacturing sector contributed positively to inequality for region 2 (Java and Bali) by 5.3% (1983), 7.6% (1989), 9.3% (1997), 8.1% (1999), 9.4% (2004). While the GRDP of the agricultural sector contributed negatively to regional inequality 2 (Java and Bali) by -1.9% (1983), -2.4% (1989), -2.0 (1997), -2.1 (1999), -2.1 (2004). These results indicate that changes in

the economic structure from agriculture to industry in Indonesia bring inequality down.

The decrease in inequality due to changes in economic structure (seen from changes in the number of workers per sector) is supported by an increase in productivity (GRDP/number of workers) both from the agricultural sector and the manufacturing sector in the 2007-2017 period. Agricultural productivity including: Lampung (25.75 to 33.64) Banten (18.52 to 32.4) West Java (16.51 to 30.96) Central Java (14.12 to 27.32) East Java (14.52 to 24.9) DI Yogyakarta (12.25 to 17.17) Bali (19.18 to 42.58) . Manufacturing industry productivity include: Lampung (86.29 to 131.1) Banten (82.01 to 114.5) West Java (147.21 to 138.31) Central Java (58.34 to 86.67) East Java (106.39 to 143.9) in Yogyakarta (39.81 to 36.03) Bali (17.18 to 26.91).

The ratio of basic education level is not significant to the level of education (Gini index). Whereas in Cameron's research (2000) in Java

there were differences in the Lorentz curve which showed an increase in Education causing higher inequality (Gini index increased from 0.399 to 0.4095).

CONCLUSION

Based on the analysis that has been done, the following conclusions can be drawn : In the poverty equation, when the GRDP rate of the agricultural sector and the manufacturing sector is getting bigger, it will reduce poverty levels in Java, Lampung and Bali. The influence of the industrial sector is greater than the agricultural sector in reducing poverty, which is -0.47%: -0.40%. Whereas the higher the average of education, it will increase poverty. This result is supported by the increase in educated unemployment in Indonesia, especially high school/vocational and Bachelor graduates. And unemployment is identical to poverty.

Farmer Exchange Rate (NTP) and the ratio of informal education are not significant to poverty, but the coefficient of the variable is in accordance with the hypothesis, that NTP has a negative relationship with education, while informal education has a positive relationship with poverty.

In the inequality equation, the greater the GRDP rate the greater the resulting inequality. This shows the quality of economic growth that is not good because it is lacking in equity. The ratio between the productivity of the manufacturing sector compared with the productivity of the agricultural sector is significant in reducing existing inequality. This shows that the changing economic structure from the agricultural sector to the industrial sector will reduce inequality (gini index) in Java, Lampung and Bali while the ratio of basic education level is not significant to inequality.

Increasing and equitable distribution of labor-intensive manufacturing industry sectors, because of their greater influence in reducing poverty and reducing inequality. By preparing competent human resources needed in the industrial world.

Although changes in economic structure have already begun (a decrease in the number of

agricultural workers, and an increase in the number of industrial workers) and show a declining inequality (gini index), the increase in productivity of the agricultural sector needs to be intensified, because it is still inferior to the productivity of the manufacturing sector. This is to improve the welfare of farmers because the number of agricultural workers is still far more than the industrial sector.

REFERENCES

- Central Statistics Agency. (2018). Official Gazette of Statistics from the Central Statistics Agency of Lampung Province About Lampung Poverty Numbers March 2018. Accessed March 2019 from <https://lampung.bps.go.id/pressrelease/2018/07/16/583/perscent-penduduk-m-poor-provinsi--fill-month-march-2018-reach-13-14-%.html>
- Central Statistics Agency. (2018). Official Gazette of Statistics from the Central Statistics Agency of Lampung Province About Lampung Poverty Numbers March 2018. Accessed March 2019 from <https://lampung.bps.go.id/pressrelease/2018/07/16/583/perscent-penduduk-m-poor-provinsi--fill-month-march-2018-reach-13-14-%.html>
- Central Statistics Agency. (2018). Official Statistics from the Central Statistics Agency of Banten Province About Banten Poverty Profile March 2018. Accessed March 2019 from <https://banten.bps.go.id/pressrelease/2018/07/16/412/perscent-penduduk-m-poor-banten-maret-2018-down-to-5-24-%.html>
- Central Statistics Agency. (2018). Official Gazette of Statistics from the West Java Provincial Statistics Agency About Poverty and Inequality in West Java March 2018. Accessed March 2019 from <https://jabar.bps.go.id/pressrelease/2018/07/16/313/tingkat-koverty-jawa-barat-march-2018-amounting-to-7-45-%.html>
- Central Statistics Agency. (2018). Official Statistics from the Central Statistics Agency of Central Java Province About Poverty Profile in Central Java March 2018. Accessed March 2019 from <https://jateng.bps.go.id/pressrelease/2018/07/16/1020/perscent-penduduk-poor-march-2018-amounting-11-32-%.html>

- Central Statistics Agency. (2018). Official News Statistics from the Central Java Provincial Statistics Board About Poverty Profile in East Java March 2018. Accessed March 2019 from <https://jatim.bps.go.id/pressrelease/2018/07/16/601/profil-kemoverty-in-east-march-march-2018.html>
- Central Statistics Agency. (2018). Official Statistics from the Provincial Statistics Agency D.I. Yogyakarta About Poverty Profile in Yogyakarta Special Region March 2018. Accessed March 2019 from <https://yogyakarta.bps.go.id/pressrelease/2018/07/16/891/profil-kemoverty-daerah-istecial-yogyakarta-maret-2018>
- Central Statistics Agency. (2018). Official Gazette of Statistics from the Central Bureau of Statistics of Bali Province About Poverty Profile in Bali March 2018. Accessed March 2019 from <https://bali.bps.go.id/pressrelease/2018/07/16/717091/maret-2018-jotal-poor-people-in-bali-reach-171-76-thousand-people>
- Bente Castro Campos, Yanjun Rena, Martin Petrick (2016) The impact of education on income inequality between ethnic minorities and Han in China. *China Economic Review* 41 (2016) 253–267
- Cristiano Perugini A,B And Fabrizio POMPEI (2016) Temporary Jobs, Institutions, and Wage Inequality within Education Groups in Central-Eastern Europe. *World Development* Vol. 92, pp. 40–59, 2017
- Coulombe, H., and McKay, A. (1994). *The cause of poverty: a study based on the Mauritania living standard survey (1989-90)*. In: Tim Llyod and Oliver Morvissey eds. *Povety, Inequality and Rural Development Case Studies in Economic Development*, 3, London: The MacMillan Press ltd
- Kuncoro, Mudrajad. 2006. *Development Economics, Theory, Problems and Policies*. Fourth Edition. Yogyakarta: UPP AMP YKPN
- Lisa A. (2000). Poverty and inequality in Java: examining the impact of the changing age, educational and industrial structure. *Journal of Development Economics*, 62, 149–180.
- Lloyd Gruber And Stephen Kosack (2014) The Tertiary Tilt: Education and Inequality in the Developing World. *World Development* Vol. 54, pp. 253–272, 2014, <http://dx.doi.org/10.1016/j.worlddev.2013.08.002>
- Luc Christiaensen, LionelDemery, and JesperKuhl (2010) The (evolving) role of agriculture in poverty reduction : An empirical perspective. *Journal of Development Economics*, Volume 96, Issue 2, November 2011, Pages 239-254. <https://doi.org/10.1016/j.jdeveco.2010.10.006>
- Maros Ivanic and Will Martin (2017) Sektoral Productivity Growth and Poverty Reduction: National and Global Impacts. *World Development* xxx (2017) xxx–xxx
- Mubiyarto. 1995. *Reformation, Economic Theory, and Poverty*. Yogyakarta: BPFE
- Paul Dorosh and JamesThurlo (2016) Beyond Agriculture Versus Non-Agriculture: Decomposing Sektoral Growth : Poverty Linkages in Five African Countries. *World Development* <https://doi.org/10.1016/j.worlddev.2016.08.014>
- Peter Warr (2010) Agricultural liberalization, poverty and inequality: Indonesia and Thailand. *Journal of Asian Economics* 35 (2014) 92–106
- Ravallion, Martin, (2001). Growth, poverty and inequality: looking beyond averages, *World Development* 29(11), 1803-1815
- Rui Benfica, Benedito Cunguara nad James Thurlo (2018) Linking agricultural investments to growth and poverty: An economywide approach applied to Mozambique. *Agricultural System* Available online 7 March 2018, In Press, Corrected Proof —
- Shahe Emran and Forhad Shilpi (2017) Agricultural Productivity, Hired Labor, Wages, and Poverty: Evidence from Bangladesh. *World Development* Available online 22 February 2017.<https://doi.org/10.1016/j.worlddev.2016.12.009>
- Sharma, K.C., and Thakur, D.S. (1992). Measurement of poverty and inequality in the tribal economy of Himalaya Pradesh – a positive approach. *Indian Journal of Economic*, 23,207-217.