Determinants of Poverty in Indonesia 2015-2019

Dwinta Nur Rahma[1], Dijan Rahajuni[2]* Supadi[3]

[1] Universitas Jenderal Soedirman, dwdwinta.nrs@gmail.com, Indonesia
[2]*Universitas Jenderal Soedirman, dijan.rahajuni11@gmail.com, Indonesia
[3]Universitas Jenderal Soedirman, supadi@unsoed.ac.id, Indonesia
*Dijan Rahajuni

ABSTRACT

According to the average of poverty level in Indonesia from 2015-2019 is 10,17 percent, it is show that the poverty in Indonesia has been decrease 1,91 percent, but this achievement has not fulfill the target yet as written in Rencana Pembangunan Jangka Menengah Nasional (RPJMN), which is 7-8 percent. The purpose of this research is to analyze the factors that affect to poverty in Indonesia, including : average length of schooling, labor absorption, income per capita (GRDP per capita), and province minimum wages (UMP). This research use secondary data, with multiple regression analysis and Fixed Effect Model (FEM).

The results show, as simultaneous all the independent variable has significant effect to the dependent variable. As partial show that income per capita and labor absorption have positive effect to poverty but only the labor absorption has significant effect. Beside the average length of schooling and province minimum wages have negative insignificant effect to poverty in Indonesia.

The implication to decrease the poverty is increasing the number of the labor absorption itself, through easing for making the business license, easing for taking the business credit, and increasing the skills and quality of the labour by intensification and extension the job training and also certification for the labour's skills.

Keywords: RPJMN; PDRB per capita; province minimum wages; fixed effect model; certification for labour's skills.

1. Introduction

Poverty become one of the problem in national development program because it will decrease the productivity, difficult to access education and health, have no job and unable to live properly, (Ihsan dan Ikhsan, 2018). Poverty happen when someone cannot fulfill their basic needed which is food and non food as a living standard, (Kuncoro, 2006). Badan Pusat Statistik (BPS) decide poverty line as someone's minimum living expenditure, it is means that if someone's expenditure per month is less than the poverty line, than that person can be categorized as poor, (BPS, 2019).

The ability of someone to fulfill their needed is depend to where they work or the level of labour absorption, education, wages policy, and level of income. Purnomo and Kusreni (2019) said that labour absorption has impact to poverty because with the absorption of labour in a job field it will provide income to them. Education level also has impact to poverty like research from Islami and Anis (2019) and Ihsan and Ikhsan (2018), they said that if someone has high education it will help them to choose any kind of job that has high income instead of they who has low education. Goverment policy about wages as said as Ihsan and Ikhsan (2018) has negative impact to poverty, meanwhile according to Azizah, Sudarti and Kusuma (2018) said that income per capita has negative impact to poverty.

Table 1 shows about the number of poor people in percent in Indonesia, from 2015 until 2019 in each semester is decrease both on even and odd semester, it is also happened in each year. It is shows that there is a good work of economic development. But the poverty reduction has happened still not reach the target yet as written in Rencana Pembangunan Jangka Menengah or RPJMN, that is 7,00 until 8,00 percent in the end of period 2015-2019. (Bapenas, 2017).

Table 1 Percent of Poor People in Indonesia 2015-2019

Year	Semester 1		Semester 2	
	Number of people	Percentage	Number of people	Percentage
2015	28.592.790	11,22	28.513.570	11,13
2016	28.005.390	10,86	27.764.320	10,7
2017	27.771.220	10,64	26.582.990	10,12
2018	25.949.800	9,82	25.674.580	9,66
2019	25.144.720	9,41	24.785.870	9,22

Source : Badan Pusat Statistik, 2020

In a way to reach the RPJMN target that is reduction the poverty level, it has to analyze the determinants of poverty in Indonesia. Variables that are thought to have an effect to poverty in Indonesia since 2015-2019 are education that is the average length of schooling, labour absorption, income per capita (GRDP per capita), and province minimum wages (UMP).

2. Literature Review

2.1 Poverty

Kuncoro (2006) said that poverty happened when someone cannot fulfill their basic needed as minimum living standard. Poverty measurement criteria in Indonesia is using poverty line from BPS, that is the decent limit of a person's life by looking at the money spent for one month to buy food and non-food needs, (BPS, 2020). Supriatna (1997) said that poor people is who they are in low education, low income, lack of nutrion health and minimal welfare.

2.2 Average Length of Schooling

In Law No. 2 of 1989 explain that education is very important in developing and sustaining the life of nation, for that it is necessary to improve the quality of education so that it can give birth to resources capable of becoming decent workers. One of the criteria for educational attainment in Indonesia is the average length of schooling, which is the year that has been spent on education at all levels of education, (BPS, 2018). Based on Kuncoro (2006), one of the causes of poverty is because of the quality of society is low due to difficult education, so people are less skilled and educated to be able to fulfil their lives.

2.3 Labour Absorption

The large population in a country can make an advantage for the economic development, but it can also bring in a large workforce. If the job field cannot absorp all the labour, it will cause unemployment and poverty. So based on Subri (2003) the economy must to provide job opportunities for workers.

2.4 Gross Regional Domestic Product per capita (GRDP per capita)

The main goal from economic development is to increase the income of society and its distribution. GRDP per capita is total value of final output that is produced by the economy, the calculation is based on current prices and fixed prices. GRDP per capita is total value devided by the total population. GRDP has a function to see how economic development is going, beside GRDP per capita is to see the ability of someone's economic, (BPS, 2020).

2.5 Province Minimum Wages (UMP)

According to Ministerial Regulation No. 15 of 2018, minimum wage is the lowest wage given per month without allowances or with allowances set by the regional head. Province Minimum Wages is the minimum wage that is set for one province concerned. Wage determination must be calculated based on the standard of decent living needs of each province. Decent Living Needs or KHL is the standard of needs for single worker to live for a month. The KHL standard is consist of some components, they are :
- Foods and drinks (11 items);
- Clothing (13 items);
- Housing area (26 items);
- Education (2 items);
- Health (5 items);
- Transportation (1 item);
- Recreation and saving (2 item).

In addition to the KHL standard, wage determination also takes into account the level of productivity, economic growth, marginal business capacity and labor market conditions. Determination of fixed wages is aimed to protect both workers and business, so that there is harmony between workers and employers, (Mahila, 2014).

3. Research Methodology

This research used secondary data from 2015-2019. The method used multiple regression analysis (with 4 predictors) and Fixed Effect Model (FEM). Regression analysis was used to estimate the change in the dependent variable from independent variable, (Sugiyono, 2017). The regression equation is :

$$LogY_{it} = a + b_2 logX_{1it} + b_2 logX_{2it} + b_3 logX_{3it} + b_4 logX_{4it} + e$$

Several model in panel data regression include *Common Effect Model (CEM), Fixed Effect Model (FEM),* dan *Random Effect Model (REM).* The steps in performing panel data regression are:

- Chow Test
  Was used to decide which is better model between CEM and FEM, the criteria is if the value of Cross Section Chi Square Probability is < 0,05 then choose FEM. But if the value of Cross Section Chi Square Probability is > 0,05 then choose CEM, (Widarjono, 2009).

- Hausman Test
  Was used to decide which is better model between FEM and REM, the criteria is if the value of Cross Section Probability is < 0,05 then choose FEM. But if the value of Cross Section Probability is > 0,05 then choose REM, (Widarjono, 2009).

- Lagrange Test
  Was used to decide which is better model between CEM and REM, the criteria is if the value of Lagrange statistics is > critical value of chi square then choose REM. But if the value of Lagrange statistics is < critical value of chi square then choose CEM, (Widarjono, 2009).
  Next, the classical assumption is detected, then the F test is used to see the effect of the independent variables together on the dependent variable by comparing the calculated F value with the F table. And the T test is used to see the effect of each independent variable partially or individually on the dependent variable by comparing t arithmetic or t statistics with t tables, (Gujarati, 2004).

4. Results

4.1 Description Data

4.1.1   Poverty

The number of poverty is decrease about 749.250 people until 1.181.330 people from 2015-2019. This reduction is happen because of several things, in 2019 due to the inflation rate is low that is 3,49 percent, the average wage of farmer and the exchange rate of farmer is increased, also because the price of goods fell, (BPS,2019).

4.1.2 Average Length of Schooling

The national average length of schooling was 8,5 years from 2015-2019. Based on BPS (2018) the low level of education in Indonesia is inseparable from the challenges being faced, which is the access of education itself in society and the quality of the education. Along with the still low average number of schooling, when viewed from the School Participation Rate (APM) is showed a decrease percentage. In elementary school level the number of APM is more than 90 percent, but for the next level like middle school and high school are decrease to 75 percent and 60 percent. It is means that there was a reduction percentage of prospective students who will continue their study on high level which is middle school and high school, (BPS, 2020).

4.1.3 Labour Absorption

The national average of labour absorption rate is 94 percent. In 2015 there has been a phenomenon that has an impact on the slowdown in a job field creation, it is cause by the weakening of imports of raw materials for industry and reduction of farmer to servicers, so thus creating rural unemployment. The other problem that show up in a work life is inability of the job candidate with all skill that needed in labour market, and also it is supported by an increasing number of the workforce or employment, (Bappenas, 2018).

4.1.4 Gross Regional Domestic Product per capita (GRDP per capita)

The national value of GRDP per capita is 35,162 million per capita per year until 40,844 million per capita per year from 2015-2019. The calculation of income per capita is done by dividing the value of GRDP with the total population, accordingly the factor of population can also affect to the value of income per capita, then it becomes ineffective if an increasing number of GRDP is allowed by an increasing of total population, because it will give an effect to the value of GRDP per capita, (BPS,2020).

4.1.5 Province Minimum Wages (UMP)

Wage determination must be calculated based on the standard of decent living needs (KHL) from each province, beside that it can be seen from the existence of industrial area and the types of companies. In Indonesia the problem or claim about wages and workers tend to still occur frequently. According to the Warta Ekonomi website (2018), the several problem are the wage level is not the same as the UMP provisions, the lack of social protection and the distribution of workers is not evently distributed because it is more concentrated in Java.

4.2 Analisis data

After selecting the data model, the fixed effect model was choosen as best model through Chow test and Hausman test, the result of those test are right below:

4.2.1 Chow Test

Table 2 Chow Test Result

Effects Test	Statistic	d.f.	Prob.
Cross-section F	29.783073	(32,128)	0.0000
Cross-section Chi-square	352.054808	32	0.0000

Source : Eviews

Based on the result of Chow Test by Eviews, the value of Chi Square Probablity is 0,00 < 0,05 which means choosing FEM over CEM.

4.2.2 Uji Hausman

Table 3 Hausman Test Result

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	22.339912	4	0.0002

Source : Eviews

Based on the result of Hausman Test by Eviews, the value of Cross Section Probablity is 0,0002 < 0,05 which means choosing FEM over REM.

Therefor the best model choosen is Fixed Effect Model (FEM). After the Chow test and Hausman test, the next step is detection of classical assumptions with the result are no problem on mulicolinearity and heterocedasticity. The last is to do F test and T test.

Table 4 Output of Panel Data Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.486290	5.190168	0.864382	0.3890
LOG(X1)	-1.037763	3.172818	-0.327079	0.7441
X2	0.125928	0.048411	2.601236	0.0104
LOG(X3)	0.246653	0.964932	0.255617	0.7987
LOG(X4)	-0.619196	0.414516	-1.493780	0.1377

R-squared = 0,916
F-statistic = 38,79
Prob (F-statatistic) = 0,00

Source : Eviews

The regression equation is :

$$Y_{it} = 4{,}486290 - 1{,}037763X_{1it} + 0{,}125928X_{2it} + 0{,}246653X_{3it} - 0{,}619196X_{4it} + e_{it}$$

With note,

Y = Number of poor people

X_1 = Average length of schooling

X_2 = Labour absorption

X_3 = Income per capita (GRDP per capita)

X_4 = Province Minimum Wages (UMP)

4.2.3   F Test

The F statistics or F value is 38,79 and the probability is 0,00 (less than 0,05). With the value of df = k-1, n-k = 4, 160 so the F table value is 2,43. So that the F statistics > F table (38,79 > 2,43), it is means the independent variable are affecting to dependent variable simultaneously and significantly.

4.2.4 T Test

The average length of schooling variable with T value -0,327079 > T table -1,65443 and the probability is 0,7441 is more than alpha 0,05. Then the average length of schooling variable has negative unsignificant effect to poverty in Indonesia.

The labour absorption variable with T value 2,601236 > T table 1,65443 and the probability is 0,0104 is less than alpha 0,05. Then the labour absorption variable has positive significant effect to poverty in Indonesia.

The GRDP per capita variable with T value 0,255617 < T table 1,65443 and the probability is 0,7987 is more than alpha 0,05. Then the GRDP variable has positive unsignificant effect to poverty in Indonesia.

The Province Minimum Wages (UMP) with T value -1,493780 > T table -1,65443 and the probabilitiy is 0,1377 is more than alpha 0,05. Then the UMP variable has negative unsignificant effect to poverty in Indonesia.

5. Discussion

5.1 Average length of schooling

According to the result of regression analysis, the average length of schooling variable has negative unsignificant effect to poverty in Indonesia from 2015-2019. It shows that if someone's length of schooling is high, it can reduce the poverty, and vice versa but not significantly. Fahmi (2016) said that the direction of the education is not suitable for mastery of skills, so even though they are highly educated, they are still not ready to work specially for the graduates and also can decrease their productivity. Beside that, Giovanni (2018) said that the factor of low school participation can also hinder the poverty reduction.

The national average length of schooling was 8,5 years from 2015-2019, which is still quite low from the 12 year compulsory education rule. High education can help people to increase their self quality and have a chance to work properly with better salary. Meanwhile when viewed from the School Participation Rate (APM) is showed a decrease percentage in every next education level from elementary school level until high school level, it is means that there was a reduction number of prospective students who will continue their study on next step of education. Thus the education factor has not been able to reduce poverty significantly or still being a factor of poverty.

5.2 Labour absorption

According to the result of regression analysis, the labour absorption variable has positive significant effect to poverty in Indonesia from 2015-2019. It shows that if the labour absorption rate is high, then the poverty is also high, and if the labour absorption rate is low then poverty is also low. Purnomo and Kusreni (2019) said that the labour absorption also has positive effect, it said that the job field or job opportunities were only available for the professional which were not suitable for poor people with limited skills.

According to Bappenas (2018) regarding to the conditions of job fields in Indonesia that one of the major challenge or obstacles that are still faced up by the prospective workers is the lack of skill and mismatch between the qualification and the availability of skills of workers.   Then there is an increase of workforce in Indonesia can also cause not all people to work.

5.3 Gross Regional Domestic Product per capita (GRDP per capita)

According to the result of regression analysis, the GRDP per capita variable has positive unsignificant effect to poverty in Indonesia from 2015-2019. It shows that if the GRDP per capita is high, then the poverty is also high, but if the GRDP per capita is low then the poverty is also low but unsignificantly. Budhi (2013) said that there is positive effect between GRDP and poverty, it stated that to reduce the poverty is not only by increasing or growing the value of GRDP alone, but it is also need to support with income distribution, job opportunities or economic growth so that can create growth with quality and justice.

In addition, the calculation of GRDP per capita cannot be separated from population factor. It is noted that the population of Indonesia is always increasing, of course this will affect the pattern of income per capita that can be obtained. An increasing GRDP when accompanied by an increase in population will result ineffective value of GRDP per capita.

5.4 Province Minimum Wages (UMP)

According to the result of regression analysis, the UMP variable has negative unsignificant effect to poverty in Indonesia from 2015-2019. It shows that if the wage is increase, it will reduce the poverty, and if the wages is decrease, it will increase the poverty but unsignificantly. Islami and Anis (2019) said if there is a discharge movement for workers that along with the increase in wages, which caused an increase in cost or budget, so that's could be a factor of poverty. Also stated that the wages still cannot fulfil the worker's needed until getting out of poverty.

6. Conclusion

The conclusion are as simultaneously all independent variable (average length of schooling, labour absorption, GRDP per capita and province minimum wages) have significant effect to dependent variable (poverty). As partially, the GRDP per capita and labour absorption variable have positive effect, but only the labour absorption variable is significant. Meanwhile the average length of schooling and province minimum wages variable have negative effect and unsignificantly.

In the way to reduce the poverty, it is necessary to improve the absorption of workers through facilitating business lisencing, facilitating business credit and improve the skills and the worker's quality by intensification and extensification job training and also certification for worker's skills. In terms of education, it is necessary to teaching to acquire skills that can equip the students after finishing school, build a good relation between school and industry, curriculum adjustment and improve the school quality.

References

Azizah, Sudarti, & Kusuma. (2018). Pengaruh Pendidikan, Pendapatan Perkapita dan Jumlah Penduduk terhadap Kemiskinan di Provinsi Jawa Timur. *Jurnal Ilmu Ekonomi, 2 (1)*, 167-180.

Badan Perencanaan dan Pembangunan Nasional. (2017). *Evaluasi Paruh Waktu RPJMN 2015-2019.* Jakarta: Bappenas.

Badan Perencanaan dan Pembangunan Nasional. (2018). *Tahun 2018, Lapangan Kerja Indonesia Melampaui Target RKP 2018 dan RPJMN 2015-2019, TPT Turun Menjadi 5,34 Persen.* Jakarta: Bappenas.

Badan Pusat Statistik. (2018). *Potret Pendidikan Indonesia Statistik Pendidikan 2018.* Jakarta: Badan Pusat Statistik.

Badan Pusat Statistik. (2019). *Perhitungan dan Analisis Kemiskinan Makro Indonesia.* Jakarta: Badan Pusat Statistik.

Badan Pusat Statistik. (2019). *Profil Kemiskinan di Indonesia September 2019.* Jakarta: Badan Pusat Statistik.

Badan Pusat Statistik. (2020, Desember 14). *Angka Partisipasi Murni (APM) Tahun 2015-2020.* Retrieved April 14, 2021, from bps.go.id: https://ww.bps.go.id/indicator/28/304/2/angka-partisipasi-murni-a-p-m-html

Badan Pusat Statistik. (2020, Januari 15). *Persentase Penduduk Miskin Berdasarkan Provinsi 2007-2019.* Retrieved Maret 2020, from bps.go.id: www.bps.go.id

Badan Pusat Statistik. (2020). *Produk Domestik Regional Bruto Provinsi-Provinsi di Indonesia Menurut Lapangan Usaha.* Jakarta: BPS-Statistics Indonesia.

Budhi. (2013). Analisis Faktor-Faktor yang Berpengaruh terhadap Pengentasan Kemiskinan di Bali : Analisis FEM Data Panel. *Jurnal Ekonomi Kuantitatif Terapan, 6 (1)*, 1-6.

Fahmi. (2016). Faktor Pendidikan dan Kesehatan Berpengaruh terhadap Kemiskinan di Provinsi Jambi. *Journal Development, 4 (2)*, 89-121.

Giovanni, R. (2018). Analisis Pengaruh PDRB, Pengangguran dan Pendidikan terhadap Tingkat Kemiskinan di Pulau Jawa Tahun 2009-2016. *Economics Development Analysis Journal, 7 (1)*, 23-31.

Gujarati. (2004). *Basic Econometrics, Fourth Edition.* The McGraw-Hill Companies.

Ikhsan, & Ihsan. (2018). Analisis Pengaruh UMP, Inflasi, dan Pengangguran terhadap Kemiskinan di Provinsi Aceh. *Jurnal Ilmiah Mahasiswa, 3 (3)*, 408-419.

Islami, & Anis. (2019). Pengaruh Upah Minimum Provinsi, Pendidikan dan Kesehatan terhadap Kemiskinan di Indonesia. *Jurnal Kajian Ekonomi dan Pembangunan, 1 (3)*, 939-948.

Kuncoro. (2006). *Ekonomika Pembangunan Teori, Masalah dan Kebijakan Edisi Keempat.* Yogyakarta: UPP STIM YKPN.

Mahila, S. (2014). Kebutuhan Hidup Layak dan Pengaruhnya terhadap Penetapan Upah Minimum Provinsi Ditinjau dari Hukum Ketenagakerjaan. *Jurnal Ilmiah Universitas Batanghari Jambi, 14 (2)*, 42-51.

Purnomo, & Kusreni. (2019). Pengaruh Investasi, PDRB dan Penyerapan Tenaga Kerja terhadap Jumlah Penduduk Miskin. *Jurnal Ekonomi dan Bisnis Airlangga, 29 (2)*, 79-93.

Rahayu. (2018, April 30). *5 Hal Ini Masih Jadi Masalah Bagi Pekerja Indonesia* . Retrieved April 27, 2021, from wartaekonomi.co.id: https://www.wartaekonomi.co.id/read179399/5-hal-ini-masih-jadi-masalah-bagi-pekerja-indonesia

Subri. (2003). *Ekonomi Sumber Daya Manusia dalam Perspektif Pembangunan.* Jakarta: Rajawali Pers.

Sugiyono. (2017). *Statistik untuk Penelitian.* Bandung: Penerbit Alfabeta.

Supriatna. (1997). *Birokrasi Pemberdayaan dan Pengentasan Kemiskinan.* Bandung: Humaniora Utama.

Widarjono. (2009). *Ekonometrika Pengantar dan Aplikasinya.* Yogyakarta: Ekonosia.