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POVERTY LINE BASED ON THE LARGE ARCHIPELAGIC AREA IN INDONESIA IN TAKING POVERTY ALLEVIATION POLICIES

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ABSTRACT

Various efforts to overcome poverty have been carried out by the government but the number of poor people is still quite high. Based on the 1945 Constitution, the Indonesian government has a mandate to realize social welfare for all people. Well-being is characterized by the fulfillment of the material, spiritual, and social needs of citizens. In other words, prosperity can be achieved through poverty alleviation. In alleviating poverty, existing policies have not interpreted the poverty line based on division in Indonesia. This study analyzes more deeply the role of urban and rural poverty lines in the division of regions in Indonesia. The method used is descriptive statistics by grouping provinces into 7 categories of large islands in Indonesia. In addition, the MANOVA analysis method was also used in this study to answer the role of the region on the size of the poverty line. What is interesting about this study is the finding that regional differences play a significant role in influencing the size of the poverty line. This research also revealed the fact that the poverty line gap between regional categories is wide at a significance level below 0.05 in the MANOVA test of between subjects effects.

Keywords: MANOVA, Gap, Poverty Line, Urban, Rural

ABSTRAK

Berbagai upaya penanganan kemiskinan telah dilakukan pemerintah namun jumlah penduduk miskin masih cukup tinggi. Berdasarkan Undang-Undang Dasar 1945, pemerintah Indonesia mengemban amanat untuk mewujudkan kesejahteraan sosial bagi seluruh rakyat. Kesejahteraan ditandai dengan terpenuhinya kebutuhan material, spiritual, dan sosial warga negara. Dengan kata lain, kesejahteraan dapat tercapai melalui pengentasan tingkat kemiskinan. Dalam upaya pengentasan kemiskinan, kebijakan yang ada selama ini belum memaknai garis kemiskinan berdasarkan pembagian di Indonesia. Penelitian ini menganalisis lebih dalam peran garis kemiskinan perkotaan dan pedesaan pada pembagian wilayah di Indonesia. Metode yang digunakan adalah statistik deskriptif dengan mengelompokkan provinsi kepada 7 kategori kepulauan besar di Indonesia. Selain itu, metode analisis Manova juga digunakan dalam penelitian ini untuk menjawab peran wilayah terhadap besar kecilnya garis kemiskinan. Yang menarik dari penelitian ini adalah temuan bahwa perbedaan wilayah mengambil peran signifikan dalam memengaruhi besarnya garis kemiskinan. Penelitan ini juga mengungkapkan fakta lebarnya gap garis kemiskinan antar kategori wilayah pada tingkat signifikansi di bawah 0,05 pada Manova Test of Between Subjects Effects.

Kata Kunci: *Manova, Gap, Garis Kemiskinan, Perkotaan, Pedesaan*
JEL: I32; I38; P25

Introduction

Until now, the government has not solved the problem of poverty in Indonesia through its programs. The number of poor people is still quite high despite various efforts to overcome poverty by the government. This is what makes poverty still a serious problem for Indonesia. According to Statistics Indonesia, the number of poor people in September 2022 reached 26.36 million people. Compared to March 2022, the number of poor people increased by 0.20 million people. Meanwhile, when compared to September 2021, the number of poor people decreased by 0.14 million people. The percentage of poor people in September 2022 was recorded at 9.57 percent, an increase of 0.03 percentage points against March 2022 and a decrease of 0.14 percentage points against September 2021.

Based on the area of residence, in the period March 2022-September 2022, the number of urban poor increased by 0.16 million people, while in rural areas it increased by 0.04 million people. The percentage of urban poverty rose from 7.50 percent to 7.53 percent. Meanwhile, in rural areas, it rose from 12.29 percent to 12.36 percent. The mandate of the 1945 Constitution is carried out by the state and the Indonesian government, namely to realize social welfare for all people. In Law Number 11 of 2009 concerning Social Welfare, welfare is characterized by meeting the material, spiritual and social needs of citizens, so that they can live a decent life and are able to develop themselves, and can carry out their social functions.

Poverty should not be defined as a statistical measure or single indicator, but rather a composite indicator with a unit of analysis of households or families with social networks around them (Murdiyana & Mulyana, 2017). The low income of the poor leads to low productivity and increases the burden of dependence on the community. In a report issued by the World Bank, five factors are considered to influence poverty, education, type of work, gender, access to basic health services and infrastructure, and geographic location.

Poverty is described as a state when a person's standard of living is considered lower than the standard of poverty. This poverty standard is better known as the poverty line. There are two approaches in determining the poverty line, namely the absolute approach and the relative approach. Based on its nature, poverty is divided into two, namely transient poverty and chronic poverty. People who are categorized as temporary poor are those whose household expenditure is below the poverty line. They become poor because the economy in general deteriorates so that their income does not meet their minimum needs. This population group will be classified as not poor if economic conditions improve because they can get jobs that provide a better livelihood. In almost all developing countries, poverty calculations tend to use an absolute approach. The World Bank uses the poverty line, which is an income of USD 1 per day, as the standard of purchasing power in various countries. The absolute poverty line is the nominal value needed to meet basic needs, which include food groups and non-food groups. Poverty, according to the absolute poverty approach, will decrease when there is a moment when the entire population in a given area experiences an increase in income at the same level. This condition is commonly known as growth that has a neutral impact on inequality-neutral growth. In developed countries, by contrast, poverty calculations usually use a relative approach, called the "strongly relative poverty line". These countries generally use a constant value against the median or average income value of people in one area. If the entire population in the region experiences income growth at the same rate, poverty will not experience a change in the value on the poverty line. In fact, it could be an increase.

Saragih (2015) stated that coordination between good regional and central policies is very helpful in solving poverty alleviation problems. The injection of funds in fiscal policy can help the poor to be directed with programs that are productive and actually improve welfare. An example is the central government's policies in poverty reduction in the Special Region of Yogyakarta such as Rice for the Poor and Direct Cash Transfer or Community Direct Assistance as compensation for the increase in fuel prices. Alignment with regional programs will be seen as helping the poor, although only temporary or short-term.

Long-term poverty alleviation requires a clear roadmap with detailed deadlines. This is not spared by considering macro variables such as the advantages of natural resources, humans, economy to the availability of infrastructure in it. Equality of development, whether related to

rural and urban development, or development between provinces in Indonesia is mandatory to be used as a basis for large poverty alleviation programs. In addition, in looking at poverty, there are other dimensions, namely non-income dimensions, such as low achievement in education and the provision of access to basic services in various regions, especially in eastern Indonesia, this further emphasizes the gap based on geographical location. These factors are interconnected and have a relationship with each other which ultimately forms a cycle of poverty. Households categorized as poor are generally poorly educated and concentrated in rural areas, because they are poorly educated, so that the productivity is low so that the rewards to be obtained are not adequate to meet the needs of food, clothing, health, housing, and education. As a result, poor households will produce poor families in the next generation.

In previous studies, there were many macro factors that unwittingly had a major influence on poverty alleviation. Pynanjung et al. (2021) stated that population density significantly affects poverty. The density rate increased by 1 person/km² in one region, decreasing the percentage of poor people by 0.149 percent in the region. In other words, the denser the area, the lower the percentage of poverty. This statement can be imagined the difference between DKI Jakarta and East Kalimantan. DKI Jakarta, which is much more populous compared to East Kalimantan, will have a smaller percentage of poor people. It is proven that in the second semester of 2022, DKI Jakarta has a poverty percentage of 4.61 percent, while Kalimantan Timur reaches 6.44 percent. But of course when viewed in terms of numbers, DKI Jakarta with a dense population will still have more poor people. The Central Statistics Agency noted that in the second semester of 2022 there were 494.93 thousand residents of DKI Jakarta who were below the poverty line, while East Kalimantan only recorded 242.3 thousand people.

Sumargo et al. (2019) have their own point of view where there is a shift in research on poverty, namely from unidimensional to multidimensional measurements, which lead to four basic points of multidimensional poverty, starting from limited economic opportunities, low skills, uncertainty of sustainable living, and helplessness. This is because poverty affects several different dimensions, such as education, health, living conditions, and so on. Therefore, poverty is now defined as a human condition that reflects failures in many dimensions of human life, such as hunger, illness, inadequate housing, malnutrition, unemployment, lack of education obtained, vulnerability, and helplessness.

Ningsih & Andiny (2018) stated that increasing economic growth is actually unable to reduce poverty. This fact indicates the possibility of financial and income flows in the Indonesian economy that only flow to the upper middle-income group or in other words income inequality. Chancel et al. (2022) in the World Inequality Report, found that income inequality in Indonesia is widening. From this data, throughout 2021, there are 10 percent of Indonesia's population, the top economic group, which has contributed to the economic pie, which is 46.86 percent. Interestingly, this figure has never changed since 2018. Meanwhile, on the other hand, there are 50 percent of Indonesia's population, the bottom economic group, contributing to GDP only 12.45 percent since 2018-2021. The income of the bottom 50 percent group is only IDR 22.6 million per year. The value that has been conveyed is much lower than in the top 10 percent group which has an income of IDR 285.07 million per year. So, if we look closely, this income inequality is still strong enough to persist in Indonesia. This is evidenced by the large poverty rate and Gini ratio that has not experienced significant changes even though Indonesia's economic growth is said to be good.

Afira & Wijayanto (2021) stated that provinces in Indonesia can be categorized into 2 broad categories, namely provinces in clusters with high and low poverty rates. Knowing the poverty characteristics of each province is fundamental. This is because the government can properly make policies to overcome the problem of poverty. Arifin (2020) stated that qualitatively descriptive cultural and geographical barriers have a role in poverty reduction in Indonesia.

Ferezagia (2018) stated that there are still many provinces in Indonesia that have a high depth index, severity index and percentage of poor people. Provinces in Indonesia are broadly divided into 3 major groups that have geographical closeness. This study also recommends

that the government should pay attention to areas/regions with a high poverty index and review economic equality in Java and outside Java.

Setiawan (2019) stated that there was a decrease in inequality in rural areas, while the poverty rate did not show a significant decrease. There is a strong positive linear relationship between poverty rates and inequality after the rollout of village funds. Whereas before the rollout of village funds, there was no real linear relationship between the level of poverty and inequality.

One of the unfinished problems of poverty alleviation in Indonesia is the gap between regions as a consequence of the concentration of economic activities in Java and Bali. The development of new provinces since 2001 and decentralization are expected to encourage wider inter-regional gaps.

The poverty alleviation strategy implemented by the government can be divided into two major parts, first protecting families and community groups experiencing temporary poverty, and second helping people experiencing chronic poverty by empowering and preventing new poverty. The strategy is further outlined in three programs that are directly directed at the poor, namely: 1) provision of basic necessities; 2) development of the social security system; and 3) development of business culture. In addition, poor people have their own strategies to overcome poverty. The strategy taken is to borrow from informal institutions, increase working hours, family members join work, migrate or save money.

The policy concepts used by the government in poverty alleviation programs can be distinguished based on tradition and the planning approach that underlies them. According to Friedmann (2019), the planning tradition consists of at least four types, namely: (1) planning is considered as social reform, that the state compiles and plans various directions to development guidelines to be followed and implemented by the community; (2) planning is described like policy analysis, that policy makers (government and other related parties) based on scientific data analysis compile and plan various development directions and guidelines that can be accepted and implemented by the community; (3) planning as social learning, that planning knowledge is obtained through experience and perfected through practice (learning by doing), planning and implementation of development is carried out together with the community with guidance from experts; and (4) planning as social mobilization, that development planning must be carried out by the community and driven by various concepts/ideologies that have been embedded in their soul and culture.

Evaluation of poverty alleviation programs can be carried out on planning approaches, development models used and implementation of the program. The criteria used to evaluate the implementation of poverty alleviation programs include: targeting and data used to set targets; the role of local governments, the general public and program target recipients; and program implementation at the government and community levels.

So far, the government has focused more on implementing poverty alleviation in development model I which focuses on national income growth. The policy that has been taken by the government is the provision of incentives or cash transfers distributed to people with poor status. This is not appropriate considering the concept of poverty used by Indonesia refers to the fulfillment of basic needs which are determined by the poverty line. The value of the poverty line is also different in each region of Indonesia. There needs to be a different classification to calculate the poverty line, which so far has never been applied in calculating the poverty line by Central Bureau of Statistics. Therefore, this study aims to analyze different urban and rural poverty lines between regions in Indonesia in order to provide effective advice for the government in poverty alleviation and achievement of general welfare. The division of regions is based on the geographical location of the islands in Indonesia so that it better illustrates the similarity in the prices of basic necessities between the same regional group so that it can analyze the poverty line more precisely.

Literature Review

Poverty is basically the inability to meet a certain standard of living. A widely used measure of poverty in developing countries is absolute poverty which compares household

income or expenditure to the poverty line. The line is based on minimum expenditure or income to obtain food to meet certain caloric needs and minimum non-food expenditure to live properly.

Central Bureau of Statistics (BPS) is an institution authorized by law to calculate and map poverty rates in Indonesia. This program has been going on for decades. Central Bureau of Statistics has been calculating poverty figures since the early 1980s and was officially published in 1984. In the dissemination stage, the resulting publication covers poverty figures for the period 1976-1981. Since then, every three years, Central Bureau of Statistics calculates the number of poor people in Indonesia along with collecting household consumption data through the National Socioeconomic Survey (Susenas). In order to meet the government's needs in providing a better welfare picture, since 2002 the calculation of poverty rates has been carried out annually with the survey of household consumption modules through Susenas.

An update to poverty measurement methods was carried out in 1998. The upgrade improved the food basket and non-food components based on a limited survey in ten provinces. The calculation of the food poverty line is based on the minimum energy needs of the Indonesian population of 2,100 kilocalories per day, which is the recommendation of the 1978 Widyakarya National Food and Nutrition. This method resulted in the expansion of commodities in the food basket in each region, which resulted in 52 types of commodities in the national food basket. The calculation of the non-food poverty line is based on 51 commodities in urban areas and 47 commodities in rural areas that include housing, clothing and footwear, health care, education costs, transportation, and various other goods and services. The consumption pattern of the population in Indonesia has changed marked by updating the minimum calorie consumption limit per capita to 2,150 kilocalories. These changes are the results of Widyakarya National Food and Nutrition 2012 and are in accordance with the latest Daily Value in the Minister of Health Regulation Number 75 of 2013 concerning Recommended Daily Value of Nutrition.

In addition, changes in population consumption patterns over the past two decades show a significant shift in quantity and quality, so it needs to be accommodated in measuring the poverty line. New standards in calculating the poor need to be adjusted to changes in population consumption patterns so that the data is more factual, the commodity coverage is comprehensive in all population groups, and reflects the basic needs of the population.

For now, the calculation of the poverty line is approached from the approach of consumption of expenditure of the population itself. Sumargo et al., (2019) while poverty is multidimensional, this means that multidimensional poverty is defined as the condition of the lack of all existing poverty indicators. This study finds the main deprivation of poverty indicators in each province in Indonesia, so that poverty alleviation programs can be directed and more in line with the main deprivation needs of poverty in an area. Using the data of the National Socio-Economic Survey (Susenas) 2014 stated that expenditure consumption approach is based on several things. First, recording expenditures tends to better describe the purchasing power of a household and its economic condition. Second, referring to a survey conducted by the United Nations, 4 expenditure approaches in measuring poverty are actually quite commonly used by developing countries. The results of a 2004/2005 survey of 84 countries showed that 49 countries (58 percent) measured poverty based on expenditure information. These countries include Albania, Armenia, Hungary, Macedonia, Moldova, Turkey, Iran, Sri Lanka, Cambodia, Bangladesh, and Myanmar. Meanwhile, 25 countries (30 percent) calculate poverty rates based on income data. These countries include Germany, France, Greece, Malaysia, and Thailand. On the other hand, 10 countries (12 percent) measure poverty using expenditure and income approaches. These countries include Lithuania, Russia, Korea, China, Vietnam, and Mongolia. Third, information about income tends not to be reliable to use as a basis for calculation. The data is always underestimated and biased in describing purchasing power. For example, one of the income indicators often used in developed countries is the value of income listed in individual income tax returns.

Poverty line calculation in Indonesia faces many difficulties. With a population of around 256 million, only 27 million have a Taxpayer Identification Number. Of these, only 10 million

reported Annual Returns 2017. Data collection in developing countries such as Indonesia has difficulty obtaining information on income for various reasons. The average respondent does not disclose their true income for fear of consequences for the information they will provide, one of which is tax. Fourth, about 60 percent of Indonesians work in the informal sector with daily income and do not have an accurate income reporting basis. Workers in the formal sector also do not all have an accurate reporting basis, and do not even have tax ID number as a basis for imposing income tax.

BPS (2023) measures poverty using standards and concepts applied in many countries, namely the basic needs approach. In this approach, the minimum household food requirement of 2,100 kilocalories per person is coupled with the non-food group's most basic needs. The inability in terms of expenditure or income to live a minimum decent life in rupiah is a monetary approach. So, poor people are people who have an average per capita expenditure each month below the poverty line. The most difficult aspect of calculating the number of poor people is determining the poverty line and ensuring the same level of welfare comparability if the line is calculated in different periods.

Data and Research Method

The poverty line will be the main variable to be examined in this study. In other words, the poverty line will become a dependent variable (Y). Furthermore, this study will use more than 1 dependent variable. This is because there are urban and rural poverty lines that are not just combined. The independent variable in this study is the category of large islands in Indonesia. Code 1 for provinces in Sumatra, 2 for provinces in Java, 3 for provinces in Bali and Nusa. The next codes are 4 for provinces in Kalimantan, 5 for provinces in Sulawesi, and 6 for provinces in Maluku and Papua.

To see the difference between more than one dependent variable, more in-depth inferential analysis is needed in looking at the role of the region on the poverty line in both urban and rural areas. Ghozali (2009) stated that for cases with more than dependent variable (Y) while the free variable is in the categorical form (region), the appropriate test is to use the Multivariate Analysis of Variance (MANOVA) test. MANOVA is an extension of Analysis of Variance (ANOVA). In ANOVA it is only limited to the use of one dependent variable that is metric (interval or ratio), while MANOVA can involve two or more dependent variables that are metric. The following is the formula between variables in MANOVA in this study:

$$Y_1 + Y_2 + Y_3 + Y_4 + Y_5 + Y_6 = X_1 + e \tag{1}$$

where,

Y_1 : Category for Provinces in Sumatra

Y_2 : Category for Provinces in Java

Y_3 : Category for Provinces in Bali and Nusa

Y_4 : Category for Provinces in Kalimantan

Y_5 : Category for Provinces in Sulawesi

Y_6 : Category for Provinces in Maluku and Papua

X_1 : Poverty Lines (IDR)

e : error models

The steps before running MANOVA operation require several preliminary tests including Multivariate Significance Test, Between-Subjects Effects Test, and Post Hoc Test.

1. Multivariate Significance Test
   This study used Wilk's Lambda MANOVA test, to make decisions in looking at differences between groups. Levene's Test in the MANOVA test will test the assumption whether dependent variables have the same variance (homogeneous). If the result is more than 0.05, this indicates that each category of dependent variables has the same

variance, and if the result is less than 0.05 it means that each category of dependent variables has a different variance.

2. Between-Subjects Effects Test
The presence or absence of differences in each category of independent variables can be measured by dependent variables using the Between-Subjects Effects test. If the result is more than 0.05, the dependent variable has a difference in each category of independent variables. Conversely, if the result is less than 0.05, the dependent variable has no difference in each category of independent variables.

3. Post Hoc Test
If the results of the Between-Subjects Effects test show that there are significant differences in each category of independent variables, then the next stage needs to be carried out Post Hoc test. This test is carried out because not all variables have a significant effect on the existing differences. There are several kinds of methods in the post hoc test that can be carried out under two (2) conditions, namely the condition that the variance-covariance assumption is met and the variance-covariance assumption condition is not met. Post Hoc test methods if the variance-covariance assumption is met are Bonferroni, LSD, Scheffe, Tukey (HSD), SNK (Student Neuman's Keuls), and Duncan. While the Post Hoc test methods if the variance-covariance assumption is not met are Dunnet and Games-Howell.

Finding and Discussion

Central Bureau of Statistics adapts the approach to the ability of households to meet basic needs or the basic needs approach in calculating the poverty level. Basic needs refer to the fundamental requirements of meeting the minimum decent living needs, namely food needs and not food. With this approach, poverty is seen as the inability in terms of expenditure or income to live a minimum decent life based on the minimum rupiah value to redeem a certain amount of food (food basket) to meet calorie needs, plus non-food expenses (non-food basket). Central Bureau of Statistics calculates food and non-food poverty line values separately in each province and by urban and rural areas.
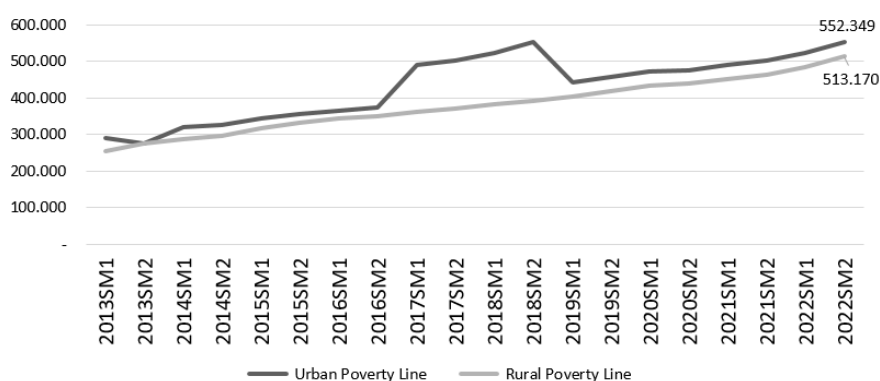
Figure 1: Comparison of Urban and Rural Poverty Lines, 2013-2022

Source: BPS (2023)

The poverty line in the graph in figure 1 shows that the urban poverty line is higher than the rural poverty line. Since 2013, the urban poverty line has always been higher than the rural poverty line. There was a fairly high increase in the urban poverty line in the second semester of 2016. This anomaly continues to increase with a gap that is quite far compared to the second semester of 2018.

The trend returned to normal in the second semester of 2019 with a constant gap until the last calculation, namely the second semester of 2022. In the last calculation by the Central

Statistics Agency, the urban poverty line reached IDR 552 thousand while the rural poverty line was only IDR 513 thousand. There is a gap difference of up to IDR 39 thousand between the two limits. This means that if someone has an expenditure of IDR 520 thousand and lives in a village, it is categorized as not poor, but if living in an urban area, it is included as a poor resident.

The difference between the poverty line is directly due to two things, namely income inequality and there is a trade margin between villages and cities that makes the gap appear. Islam et al. (2017) stated that poverty levels and income inequality affect economic growth significantly. The higher the percentage of poor people in the area, the lower the economic growth rate. But this does not apply the opposite.

This gap between urban and rural areas also occurs as a result of improper and unsustainable economic activities. In the economic world this is often referred to as buble economics. Reducing income inequality between urban and rural areas is not an easy task as it is very time-consuming, expensive, and contradictory. The government always wants to experience high growth but it will cause inflation. To reduce inflation, concrete/monetary policy is used.

One of the government's policies to increase national income is to increase taxes. When income taxes, corporate taxes and other taxes are high, people living in poverty can never live a better life while the rich get better every day. This actually leads to higher income inequality. Major conflicts in achieving macroeconomic goals of stable growth, low inflation, low unemployment, higher standing of life and less income inequality will always exist.

In addition to the poverty line between urban and rural areas which shows gaping differences, the poverty line between regions also plays a role in the widening of the gap. This is related to meeting basic needs that require interaction between regions. Interaction is a reciprocal relationship that influences each other between two or more regions. The relationship causes new symptoms, appearances, or problems. Cities and villages also interact directly or indirectly. That interaction is called regional interaction. Rural areas are known for their food sources while urban areas are the center of the agricultural industry. This interaction of the movement of final goods causes price margins in meeting basic needs in rural and urban areas. No wonder the cost of living in cities is relatively more expensive than in villages because the rupiah to achieve "basic needs" is higher in urban areas.
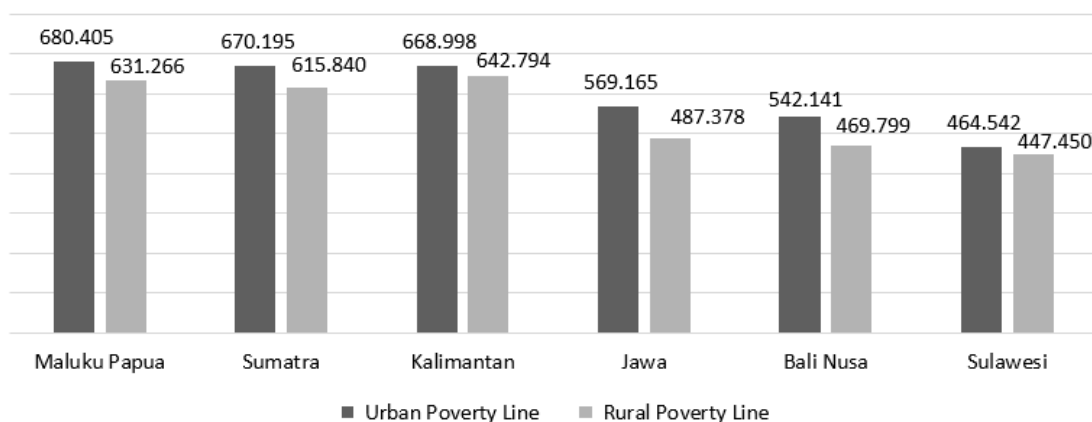
Source : BPS (2023)

Figure 2: Average Urban and Rural Poverty Line by Archipelago of Indonesia, Second Semester 2022

Based on the latest data on the poverty line in the second semester of 2022, it is known that urban poverty line is always larger than rural poverty line on each major island in Indonesia. The largest poverty line gap is found in Java up to IDR 81,787 while the smallest poverty line gap is in Sulawesi with IDR 17,093. This indicates that the fulfillment of basic needs in Java there is a significant difference between those dated in urban and rural areas. This gap indicates price differences due to transportation services, trade margins to the unequal quality of goods and services within Java. Not only Java, Bali and Nusa Tenggara also have a significant poverty line gap of more than IDR 70,000. On the other hand, the poverty line gap was not found to be significantly different in both urban and rural areas on Sulawesi Island.

From figure 2, it can also be seen that the average poverty line on Sulawesi Island has the lowest value in the second semester of 2022. The urban poverty line only touches IDR 464,542 while for rural areas it is only IDR 447,450. These figures indicate that a small nominal rupiah is needed to be categorized as poor in Sulawesi regions. On the other hand, the poverty line value is quite high in the Maluku region of Papua and Sumatra. Each has a rural poverty line that is even higher than the urban poverty line in Sulawesi and even Java. The rural poverty line in Maluku, Papua and Sumatra reached IDR 631,266 and IDR 615,840 respectively. Meanwhile, the urban poverty line is much higher, reaching IDR 680,405 and IDR 670,195 respectively.

Table 1: Multivariate Test Result

	Effect	Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	0.985	396.409[b]	4.000	24.000	0.000
	Wilks' Lambda	0.015	396.409[b]	4.000	24.000	0.000
	Hotelling's Trace	66.068	396.409[b]	4.000	24.000	0.000
	Roy's Largest Root	66.068	396.409[b]	4.000	24.000	0.000
Region	Pillai's Trace	1.176	2.249	20.000	108.000	0.004
	Wilks' Lambda	0.176	2.775	20.000	80.549	0.001
	Hotelling's Trace	2.832	3.186	20.000	90.000	0.000
	Roy's Largest Root	2.019	10.902[c]	5.000	27.000	0.000

The results of the multivariate test showed a significant influence of the independent variable on all dependent variables. In other words, overall regional or geographical factors have a significant role in determining the poverty line both in rural and urban areas. This is shown from table 1 p-values of <0.05 with a significant confidence level of 95 percent.

Table 2: Provincial Cluster Results Based on Food Poverty Line In Previous Research

Cluster	Categories	Number of Objects	Province
I	Highest Food Poverty Line	6	Bangka Belitung Islands, Riau Islands, Jakarta, East Kalimantan, North Kalimantan dan West Papua
II	Intermediate Poverty Line	16	Aceh, North Sumatera, Riau, Jambi, Bengkulu, Lampung, Yogyakarta, Banten, West Kalimantan, Central Kalimantan, South Kalimantan, Central Sulawesi, Maluku, North Maluku dan Papua
III	Low food poverty line	12	South Sumatera, West Java, Central Java, East Java, Bali, East Nusa Tenggara, West Nusa Tenggara, North Sulawesi, South Sulawesi, Southeast Sulawesi, Gorontalo, West Sulawesi

Source : Aprilia & Sembiring (2021)

The results of this first test are in line with previous research, Aprilia & Sembiring (2021) which states that geographically adjacent provinces tend to have the same poverty line value pattern. Provinces in Indonesia can be grouped into three poverty line groups, namely the highest, medium and lowest poverty line clusters. The findings of the study are more detailed in the following points.

Before proceeding to the Post Hoc Test stage, a variant homogeneity test is needed in this MANOVA stage. The output of the SPSS26 conversation is presented in table 3.

From table 3 it is known that all variables have the same variance (homogeneous). This is indicated through the sig value > 0.05. Because the variant is homogeneous, the appropriate Post Hoc test in the next stage is the Bonferroni Test.

Table 3: Uji Levene's Test of Equality of Error Variances Test

	Variances	Levene Statistic	df1	df2	Sig.
Urban PovertyLine_ SM1_22	Based on Mean	2.261	5	27	0.077
	Based on Median	0.711	5	27	0.620
	Based on Median and with adjusted df	0.711	5	13.508	0.625
	Based on trimmed mean	2.199	5	27	0.084
Urban PovertyLine_ SM2_22	Based on Mean	2.096	5	27	0.097
	Based on Median	0.671	5	27	0.649
	Based on Median and with adjusted df	0.671	5	14.535	0.652
	Based on trimmed mean	2.047	5	27	0.104
Rural PovertyLine_ SM1_22	Based on Mean	1.830	5	27	0.141
	Based on Median	1.141	5	27	0.363
	Based on Median and with adjusted df	1.141	5	19.665	0.372
	Based on trimmed mean	1.736	5	27	0.160
Rural PovertyLine_ SM2_22	Based on Mean	1.848	5	27	0.137
	Based on Median	1.228	5	27	0.323
	Based on Median and with adjusted df	1.228	5	19.571	0.333
	Based on trimmed mean	1.741	5	27	0.159

Based on table 4, it is known that differences between regions have an important role in influencing the size of the poverty line. There are several factors that cause the difference in the amount of rupiah that must be spent by each person related to regional factors, including dependence between regions on the availability of certain staples and uneven distribution of goods due to infrastructure access.

The findings in this study are supported by previous research where Arifin (2020) stated that qualitatively descriptive cultural and geographical barriers have a role in poverty reduction in Indonesia. It is not that easy to provide basic needs that are equal and evenly distributed to all regions in Indonesia. This is because there are some staples that are only available in other regions. This makes inevitably other regions have to import these goods. From here comes the

interaction between regions in fulfilling basic needs. Trade between regions has an important role in the community's economy. Based on the Regulation of the Minister of Trade of the Republic of Indonesia Number 29/M-DAG/PER/5/2017 concerning Inter-island Trade, Inter-island trade is the activity of trading and/or distributing goods from one island to another in one province or between provinces, which is carried out by inter-island trade business actors by crossing the goods using various types of transportation. Trade between regions describes a series of paths of movement of goods from one region to another. The availability and need of commodities in each province are different as well as fluctuations and disparities in the prices of basic goods between regions that are quite high are factors driving the wide gap in poverty lines between provinces.

Table 4: Output SPSS dari Test of Between Subjects Effects

Source	Dependent Variable	F	Sig.	Noncent. Parameter	Observed Power[e]
Corrected Model	UrbanPLSM1_22	7.390	0.000	36.951	0.996
	UrbanPLSM2_22	7.765	0.000	38.825	0.997
	RuralPLSM1_22	6.102	0.001	30.508	0.984
	RuralPLSM2_22	6.287	0.001	31.436	0.987
Region	UrbanPLSM1_22	7.390	0.000	36.951	0.996
	UrbanPLSM2_22	7.765	0.000	38.825	0.997
	RuralPLSM1_22	6.102	0.001	30.508	0.984
	RuralPLSM2_22	6.287	0.001	31.436	0.987

BPS (2022) in the publication of Interregional Trade illustrates that some provinces actually purchase basic goods to provinces farther from their territory, for example Papua. In fulfillment of basic ingredients, it comes from the Provinces of East Java and East Kalimantan. The total of the two provinces alone has reached a trade value of 225.52 billion Rupiah. The same thing also happened in North Maluku Province. The province actually made many purchases to provinces that were quite far away, namely Aceh, North Sumatra, East Java and South Sulawesi with a total purchase value of 327.18 billion Rupiah. This trade, which takes a considerable distance, is naturally because the surrounding provinces cannot meet the basic needs in the region. In 2022, North Maluku made the largest purchase of 3 commodities, namely rice, motorcycles, and passenger cars. This is of course a supporting staple that cannot be obtained from the nearest province, even from within the province. Finally, the cost of fulfilling basic food needs becomes higher in areas such as Maluku and Papua. This finding supports the description and division of the area carried out in this study. Not to mention if you look at the mode of transportation used in the process of transporting goods between these regions. Details of the mode of transportation used are listed in the following table.

Table 5: Percentage of Interregional Trade Transportation Modes by Type of Transport in Maluku and Papua, 2022

Province	Ground	Ocean	Air
Aceh	96.37	3.45	0.18
North Sumatera	91.89	3.82	4.30
West Sumatera	97.48	1.15	1.38
Riau	92.72	5.75	1.52

Province	Ground	Ocean	Air
Jambi	97.22	1.77	1.01
South Sumatera	98.51	0.99	0.50
Bengkulu	96.93	2.19	0.88
Lampung	94.59	4.98	0.43
Bangka Belitung Islands	19.40	68.16	12.44
Riau Islands	15.12	69.77	15.12
Jakarta	92.39	4.14	3.47
West Java	99.08	0.82	0.09
Central Java	99.26	0.52	0.22
Yogyakarta	99.43	0.00	0.57
East Java	93.23	5.60	1.17
Banten	98.13	1.13	0.75
Bali	92.48	5.01	2.51
West Nusa Tenggara	79.90	16.45	3.66
East Nusa Tenggara	22.03	73.08	4.90
West Kalimantan	19.92	67.73	12.35
Central Kalimantan	68.23	29.17	2.60
South Kalimantan	53.92	36.18	9.90
East Kalimantan	30.99	52.72	16.29
North Kalimantan	40.10	53.14	6.76
North Sulawesi	43.42	43.98	12.61
Central Sulawesi	62.06	31.56	6.38
South Sulawesi	46.93	43.00	10.07
Southeast Sulawesi	47.94	48.31	3.75
Gorontalo	50.00	45.45	4.55
West Sulawesi	97.81	2.19	0.00
Maluku	19.79	75.52	4.69
North Maluku	14.88	81.55	3.57
West Papua	13.86	80.12	6.02
Papua	14.29	78.10	7.62

Source: BPS (2022)

Based on table 5, Maluku and Papua focus on sea transportation modes as a means of trade transportation. Of the four regions, sea transportation mode plays a role in more than 75 percent of trade between regions. The highest is North Maluku which reached 81.55 percent. The lack of trade in land transportation modes (14.88 percent) shows that the availability of basic necessities in the region needs assistance from other regions. This phenomenon makes an increase in loading and unloading and packing costs, thereby increasing the selling price of basic needs. This will indirectly raise the poverty line in the region due to the additional cost of reaching the end consumer.

Uneven distribution of goods due to infrastructure access is the next factor. It is stated that infrastructure due to regional influence is one of five factors that are considered to affect the occurrence of poverty. Therefore, the results of this study are in accordance with the theory that has been described earlier, namely the existence of regional factors in influencing the poverty line. The region is an important factor in the availability of infrastructure in the area, and infrastructure will support the distribution of goods to the region. Previous research also presented the same thing that infrastructure in Indonesia has different gaps between regions. Faradis & Afifah (2020) stated that seven provinces are categorized as inadequate infrastructure located in Kalimantan and the majority of eastern Indonesia. Provinces that are categorized as less crowded include West Kalimantan, Central Kalimantan, East Kalimantan, and all provinces in Maluku and Papua. The seven provinces have infrastructure availability in both health and economic dimensions below the national average.

Finally, this condition makes the process of distributing basic necessities uneven. In addition, more expensive transportation and accommodation costs will increase the poverty line indirectly through meeting the basic needs of the population. People in the region have to spend more money to get the same type of basic goods.

Conclusion

Based on the above findings, it can be concluded that there are differences in rural and urban poverty lines. the urban poverty line is higher than the rural poverty line from 2013 to the second semester of 2022. These differences also affect the poverty line between regions based on geographical groupings in Indonesia.

On average, the highest poverty line, both urban and rural, is found in the Maluku and Papua. This condition is closely related to limited access to get basic needs from the region of origin. While the lowest average poverty line is on the island of Sulawesi, which can be interpreted that some of the basic needs in the Sulawesi region have been able to be met by their own region or surrounding areas without the need for a costly distribution process. Grouping regions into Sumatra, Java, Bali-Nusa, Kalimantan, Sulawesi, and Maluku-Papua accurately illustrates the difference in poverty lines.

Recommendations to the government for poverty alleviation need to consider, among others: 1) It can no longer be done by the central government itself, meaning through various centralized, uniform and short-term sectoral policies, which are based on the conditions of their respective urban and rural areas through easy access to meet basic needs from outside the region. 2) Systematic, integrated and comprehensive planning, in order to properly fulfill the basic rights of citizens to natural resources in their own territory for the fulfillment of their own basic needs so as to realize a prosperous community life. 3) Acceleration of poverty reduction by integrated coordination measures across regions in the preparation of poverty reduction policy formulation and implementation. 4) These steps are sought to sharpen in several aspects which include: target setting, program design and integration, supervision and evaluation and evaluation, and budget effectiveness. 5) It is necessary to strengthen institutions that are safe. Poverty alleviation is specific to urban and rural areas in Indonesia.

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