THE EFFECT OF MINIMUM WAGE AND PER CAPITA EXPENDITURE ON POVERTY IN PROVINCIAL DISTRICTS D.I. YOGYAKARTA

Luthfia Qurrotu'aini, Ida Bagus Putu Purbadharmaja
Faculty of Economic and Business, Udayana University, Bali, Indonesia
Email: luthfiaqurrotu2@gmail.com , purbadharmaja@unud.ac.id

Abstract:
Poverty is a condition when a person lives below the poverty line and is unable to meet his basic needs. Poverty is one of the economic and social problems that is difficult to overcome. Province of D.I. Yogyakarta is the province with the highest poverty on the island of Java and ranks 11th out of 34 of the poorest provinces in Indonesia in 2021. The purpose of this study is to analyze the effect of the minimum wage and per capita expenditure on poverty in the district/cities of the province of D.I. Yogyakarta with the chosen model, namely the Random Effect Model (REM). The data used in this study are panel data for 2013-2021, the data analysis technique used is multiple linear regression with the Generalized Least Square (GLS) method with eviews 12. The results show that simultaneously the minimum wage and per capita expenditure have an effect towards poverty in the district/cities of the Province of D.I Yogyakarta. The results of the study also prove that partially the minimum wage does not have a significant effect on poverty, and per capita expenditure has a significant negative effect on poverty, which means that an increase in per capita expenditure will reduce poverty.
 Keywords: Minimum Wage; Per Capita Expenditure; Poverty.

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INTRODUCTION

Poverty remains one of the challenging economic and social problems that are difficult toovercome or at least be gradually minimized consistently (Suharti, 2022). Poverty is a condition where individuals live below the poverty line and are unable to meet their basic needs such as food, shelter, education, and healthcare (Anggraeni et al., 2018). Povertyeven becomes a benchmark for the success of a country's government over time, especially for developing economies like Indonesia. The island of Java has six provinces, with the three highest numbers of poor populations located in East Java, Central Java, and West Java. However, in termsof the percentage of the population living in poverty, the highest is in the Special Region of Yogyakarta (D.I. Yogyakarta). Surprisingly, among the six provinces on the island of Java, D.I. Yogyakarta is the province with the smallest land area. D.I. Yogyakarta even ranks 11th out of 34provinces with the highest poverty rates in Indonesia in 2021. According to data from the Central Statistics Agency, the percentage of the population living in poverty in D.I. Yogyakarta from 2017 to 2021 has always been higher than the national poverty rate and exceeds 10 percent, which isquite high.

Table 1. Percentage of Poor Population by Province in Java Island 2017-2021 (in percent)

Province	2017	2018	2019	2020	2021
DKI Jakarta	3.78	3.55	3.42	4.69	4.67
Jawa Barat	7.83	7.25	6.82	8.43	7.97
Jawa Tengah	12.23	11.19	10.58	11.84	11.25
D.I. Yogyakarta	**12.36**	**11.81**	**11.44**	**12.8**	**11.91**
Jawa Timur	11.2	10.85	10.2	11.46	10.59
Banten	5.59	5.25	4.94	6.63	6.5
Nasional	**10.12**	**9.66**	**9.22**	**10.19**	**9.71**

Source: BPS, 2022

DKI Jakarta province has the lowest percentage of poor population among the provincesin Java, with 4.67 percent in 2021. This is due to the fact that DKI Jakarta is the capital city of thecountry, serving as the national political and economic center, and it is also an industrial area, resulting in a relatively smooth economic activity. On the other hand, D.I. Yogyakarta province has the highest poverty rate in Java, reaching 11.91 percent in 2021, mainly due to the simple consumption patterns of its population. Poverty is not just about the number and percentage ofthe poor population but also needs to consider

other indicators, one of which is the depth of poverty. According to the Central Statistics Agency (2022), the Poverty Gap Index (P1), is a measure of the average expenditure gap between each poor individual and the poverty line. A decrease in the value of the poverty gap index indicates that the average expenditure of the poor

population tends to approach the poverty line, and the inequality in expenditure among the poorpopulation is narrowing.

Kulonprogo is the district with the highest poverty gap index in D.I. Yogyakarta Province, reaching 3.01 percent in 2021. Between 2014 and 2019, In Kulonprogo, the poverty rate experienced a significant decline but increased again during the COVID-19 pandemic. The povertygap index, which measures the average expenditure gap between the poor and the poverty line, is also very high in Kulonprogo. This means that as the P1 index increases, it becomes more challenging to reduce poverty. The significant disparity in poverty rates among district/cities in the Special Region of Yogyakarta indicates regional disparities that should be addressed by the local government.

Income is a crucial factor that influences poverty. Two poverty cycle theories: the supply side and the demand side. On the supply side, low income levels resultin low savings capacity, which leads to low levels of capital formation and productivity. On the demand side, limited investment incentives due to low income levels result in a constrained market for various goods and services. Income is closely related to the minimum wage set by the local government. Minimum wage policies also impact poverty rates. The objective of minimumwage policies, developed since the 1970s, is to ensure that the minimum wage can at least meetthe minimum living needs in the long term. This is expected to improve the welfare of workers and promote increased productivity (Putri, 2023). Wages below the minimum wage can affect savings, and without savings, poor individuals struggle to meet their basic needs, resulting in poverty. (Istifaiyah, 2016) found in their research that the minimum wage has a negative and significant impact on poverty rates. This means that as the minimum wage increases, poverty rates can decrease due to the increased income that can be used to meet basic needs. This is consistent with the findings of (Karakitsios & Matsaganis, 1801), which suggestthat the minimum wage can reduce poverty.

The Special Region of Yogyakarta has the lowest minimum wage among all provinces in Indonesia. In 2021, the minimum wage in the Special Region of Yogyakarta was set at Rp1,765,000 per month, representing an increase of Rp60,392 from the previous year (Rp1,704,608 in 2020). The increase in the minimum wage is based on local government policies aimed at encouraging workforce participation. Additionally, the increasing needs of the population have also contributed to the decision to raise wages/salaries. Despite the increase, the Special Region of Yogyakarta still has the lowest minimum wage among all provinces in Indonesia. Kulonprogo District is the district with

the lowest minimum wage in the Province of D.I. Yogyakarta, which is Rp. 1,770,000 and the highest minimum wage namely the City of Yogyakarta, which is Rp. 2,069,530 in 2021.

Another factor that can affect the level of poverty is the real expenditure per capita which shows the level of social welfare. Halim (2012: 47) defines overall per capita expenditure for household members who are included in one household, namely by using the notion of household consumption expenditure. So, household consumption expenditure is expenditure made by households to purchase goods and services for daily necessities for household membersin a certain period. (Sangadah et al., 2020) in their research found results that the average percapita expenditure has a negative and significant effect on poverty, which means that when a person's average per capita expenditure rises it will increase welfare and then reduce poverty. Expenditure data can reveal general household consumption patterns using indicators of the proportion of expenditure on food and non-food items. The composition of household expenditure can be used as a measure to assess the level of economic welfare of the population,the lower the percentage of expenditure on food to total expenditure, the better the level of welfare.

Table 2. Adjusted Per Capita Expenditure by District/Cities in D.I. Yogyakarta from 2017 to 2021(in thousand rupiahs/person/year)

District/Cities	2017	2018	2019	2020	2021
Kulonprogo	9,277	9,698	10,275	10,041	10,069
Bantul	14,995	15,386	15,636	15,517	15,545
Gunungkidul	**8,788**	**9,163**	**9,612**	**9,486**	**9,505**
Sleman	15,365	15,844	16,434	15,926	16,060
Yogyakarta	18,005	18,629	19,125	18,678	18,801
D.I. Yogyakarta	**13,521**	**13,946**	**14,394**	**14,015**	**14,111**

Source: BPS, 2022

Gunungkidul District has the lowest per capita expenditure, amounting to Rp9,505,000 per person per year in 2021. The majority of the population in Gunungkidul District lives modestlyand does not engage in property purchases such as land/houses, as they already possess land inherited from their ancestors, which is then cultivated as rice

fields and plantations to meet their daily needs. The highest per capita expenditure is in Yogyakarta City, amounting to Rp18,801,000 per person per year in 2021. This is because Kota Yogyakarta is an educational city, attracting significant spending from migrants, especially on processed food products, rent, property, and other expenses. Based on the research problem formulation and previous research discussions, the following hypotheses are proposed: H1: Minimum wage and per capita expenditure have a simultaneous effect on poverty in District/cities in D.I. Yogyakarta. H2: Minimum wage and per capita expenditure have a partial negative effect on poverty in District/cities in D.I. Yogyakarta.

METHODOLOGY

This study adopts an associative quantitative research design. The research is conductedin district/cities in D.I. Yogyakarta, which consists of 4 districts and 1 city, where there is a considerable disparity in poverty rates among district/cities in D.I. Yogyakarta, indicating regional disparities. The study utilizes panel data with a time series spanning 9 years from 2013 to 2021 and cross-sectional data from 5 district/cities in D.I. Yogyakarta, resulting in a total of 45 observations. The observation in this study consists of 45 data points. The data used aresecondary data obtained from the Central Bureau of Statistics, collected through non-participant observation. This study includes two independent variables: minimum wage measured by the minimum wage in each district/cities, and per capita expenditure measured by the adjusted percapita expenditure in each district/cities in D.I. Yogyakarta. The dependent variable in this studyis poverty measured by the poverty gap index in each district/cities in D.I. Yogyakarta. The collected data were analyzed descriptively and inferentially using Eviews 12 software.

RESULTS AND DISCUSSION

The development of minimum wage in district/cities in D.I. Yogyakarta tends to increase from 2013 to 2021, following the rising cost of living and annual inflation. Kulonprogo has the lowest minimum wage compared to other district/cities in D.I. Yogyakarta, amounting to Rp1,770,000. This is because the majority of the population in Kulonprogo District lives in rural areas with a simple lifestyle, and their main source of income is farming, resulting in lower wagescompared to those in Yogyakarta City, where the minimum wage was Rp2,069,530 in 2021.

Per capita expenditure in district/cities in D.I. Yogyakarta has shown a significant upwardtrend from 2013 to 2021. A higher expenditure on food indicates a lower level of well-being for the population, while a lower expenditure on non-food items indicates higher welfare. The district/cities with the lowest per capita expenditure is Gunungkidul,

followed by Kulonprogo. Ina year, Gunungkidul and Kulonprogo only reach an average per capita expenditure of less than Rp10 million. On the other hand, Yogyakarta City consistently has the highest per capita expenditure, exceeding Rp16 million per year from 2013 to 2021.

The Poverty Gap Index (P1), which measures the average expenditure gap of each poor individual from the poverty line, was highest in Gunungkidul in 2015, reaching 4.55 percent. This is considerably higher than Sleman and Yogyakarta, which were only 1.46 percent and 1.06 percent, respectively, in the same year. This is due to the lower expenditure of the population in Gunungkidul and Kulonprogo, resulting in a wider gap and higher poverty index. The higher the P1 value, the more challenging it becomes to reduce poverty.

Table 3. Descriptive Statistics Results

Variable	Unit	Minimum	Maximum	Mean	Std. Deviasi
Poverty	Percent	0.85	4.55	2.2618	1.03441
Minimum Wage	Rupiah	947114	2069530	1439659.31	313111.646
Per Capita Expenditure	Thousand Rupiah	8202	19125	13264.93	3681.459
Valid N = 45					

Source: Processed secondary data, 2023

Based on the descriptive statistics results, it can be explained that there are 45 data pointsin the study. The minimum wage variable has a minimum value of Rp947,114 and a maximum value of Rp2,069,530, with a mean of Rp1,439,659.31 and a standard deviation of Rp313,111.65.The per capita expenditure variable has a minimum value of Rp8,202 and a maximum value of Rp19,125, with a mean of Rp13,264.93 and a standard deviation of Rp3,682.46. The poverty variable has a minimum value of 0.85 percent and a maximum value of 4.55 percent, with a meanof 2.26 percent and a standard deviation of 1.03 percent.

Table 4. Results of Panel Data Model Feasibility Test

Test	Hypothesis	Result	Final Decision
Chow Test	Common Effect vs Fixed Effect	0,0001 < 0,05	Fixed Effect

Hausman Test	Random Effect vs Fixed Effect	0.9370 > 0,05	Random Effect
LM Test	Common Effect vs Random Effect	0,0000 < 0,05	Random Effect

Source: Processed secondary data using Eviews 12, 2023

The panel data regression method used in this study is the Random Effect Model (REM), employing the Generalized Least Square (GLS) approach. The classical assumption tests conducted include the normality test and the multicollinearity test. The heteroskedasticity test is not used in the GLS approach because it aims to correct for heteroskedasticity, assuming that the random effect model is free from heteroskedasticity. The normality test examines whether the regression model is normally distributed or not. In this study, the probability value of 0.563 is greater than the significance level of 0.05 (5 percent), indicating that the tested regression model follows a normal distribution. The multicollinearity test aims to assess the correlation between independent variables. In this study, the correlation between X1 and X2 is 0.406, which is less than 0.90, indicating the absence of multicollinearity issues.

Table 5. Coefficient of Determination (R2) and F-test Results

R-squared	0.399145
Adjusted R-squared	0.370533
F-statistic	13.95018
Prob(F-statistic)	0.000023

Source: Processed data using Eviews 12, 2023

The R-squared value is 0.399145, indicating that 39.91 percent of the variation in povertyin District/cities in D.I. Yogyakarta from 2013 to 2021 can be significantly influenced by the independent variables: minimum wage (X1) and per capita expenditure (X2). The remaining 60.09 percent is explained by other factors. The F-test results indicate that the probability value (Prob(F-Statistic)) in the random effect model is 0.000023, which is less than 0.05 (α = 5%). Therefore, it can be concluded that the simultaneous effect (F-test) of the independent variables, minimum wage (X1), and per capita expenditure (X2), has a significant influence on poverty (Y).

Table 6. t-Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.574552	0.690773	8.070026	0.0000
X_1	-1.91E-08	2.49E-07	-0.076717	0.9392
X_2	-0.000248	6.10E-05	-4.060806	0.0002

Source: Processed data using Eviews 12, 2023

The regression coefficient for X1 (minimum wage) is -1.91 with a t-value of -0.0767, whichis greater than the critical t-value of -1.681, at a significance level of 0.05. This means that the variable X1 does not have a significant negative effect on poverty. This finding contradicts the study conducted by (Brito & Kerstenetzky, 2019) which found a significant negative impact of minimum wage onpoverty reduction. Therefore, in this study, it is concluded that minimum wage does not have a significant effect on poverty. This result is consistent with previous studies conducted by (Susanto, 2014) and (Chairunnisa & Qintharah, 2022), which showed that minimum wage does not have an impact on poverty. Moreover, (Dakhilullah, 2023), which used panel data regression with a Random Effect Model approach, also found that minimum wage does not have a significant effect on poverty.

The lack of significant effect of minimum wage on poverty in district/cities in D.I. Yogyakarta can be attributed to the larger number of workers in the informal sector compared to the formal sector. Urban residents working in the informal sector are not affected by minimumwage regulations, and rural residents, who mainly work in the informal sector, are not subject tominimum wage regulations either. The percentage of formal sector workers is 44.64 percent, while the informal sector accounts for 55.36 percent in 2021. Specifically, the percentage of informal workers in the agricultural sector in D.I. Yogyakarta in 2021 is 94.61 percent, indicatingthat the majority of informal workers in D.I. Yogyakarta work in the agricultural sector (Badan Perencanaan Pembangunan Daerah Provinsi D.I.Yogyakarta., 2022).

These findings are supported by international studies. A study titled "Minimum wage – does it cut poverty?" states that minimum wage does not have a significant impact on poverty (Saget, 2018). This is due to three reasons. First, minimum wage may have an impact on the middle class in developing countries with low minimum wage levels. This

means that minimum wage affects the middle class, but it does not reduce poverty for the poor. Second, the impact of minimum wage on poverty depends on the type of workers who receive it. Third, there is little evidence to suggest that minimum wage serves as an overall benchmark and tool to combat extreme poverty, although it may impact non-extreme poverty. Another study by Charles Lammam and Hugh MacIntyre (2023) also found that minimum wage does not have a significant effect on poverty, with several reasons. First, most minimum wage earners do not come from poor families. Second, most individuals receiving minimum wage are not the sole breadwinners in their households. Instead, their findings suggest that increasing the minimum wage can actually increase relative poverty, as it reduces job opportunities for young workers within those low-income households.

Regarding the variable X2 (per capita expenditure), the t-test results show a probability value of 0.0002, which is less than 0.05. The coefficient value is -0.000248, indicating that per capita expenditure has a negative and significant correlation with poverty. In other words, a one thousand rupiah increase in per capita expenditure will decrease poverty by 0.0248 percent. Thus, it can be concluded that higher per capita expenditure by the population will lower the poverty rate.

This finding is consistent with studies by (Meimela, 2019), (Rivanti, 2017), and (Hutabarat, 2018), which found that per capita expenditure has a significant negative effect on the poverty rate. Increased per capita expenditure can lead to a reduction in the number of people living in poverty in an area, as higher levels of per capita expenditure indicate improved overall economic well-being. Another relevant study by (Wulandari & Pratama, 2022) found that per capita expenditure has a significant negative effect on poverty, implying that an increase in per capita expenditure leads to a decrease in poverty.

CONCLUSION

Based on the analysis and discussion, it can be concluded that minimum wage and percapita expenditure have a significant simultaneous effect on poverty in district/cities in D.I. Yogyakarta. However, the partial effect of minimum wage on poverty is not significant, while per capita expenditure has a significant negative effect on poverty in district/cities in D.I. Yogyakarta.

Minimum wage should continue to be enforced to ensure that workers receive appropriate wages to meet their daily needs and avoid falling below the poverty line. Increasing per capita expenditure can contribute to poverty reduction. Therefore, efforts should be made to increase expenditure and consumption by the population to promote economic circulation and improve welfare, resulting in a decrease in poverty. Future researchers are encouraged to further enhance this study by including additional variables

such as population size, openunemployment rate, Gross Regional Domestic Product (PDRB), and other relevant factors to obtain more detailed research outcomes and stronger coefficient of determination values.

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