

## Factors Affecting Poverty in Central Java Province for the Period 2017-2022

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**ABSTRACT:** Poverty is a serious issue that is hard to ignore in many Indonesian provinces, especially the province of Central Java. This study uses secondary data in the form of a datapanel with cross-section 35 districts / cities and time series for 6 years to measure four independent variables—the city minimum wage (UMK), open unemployment, the human development index (HDI), and foreign investment—and one dependent variable—the poverty variable (Y). The goal is to determine the factors that affect poverty in the province of Central Java. This study's data analysis technique is panel data regression with a Fixed Effect Model (FEM) approach, which is handled with version 12 eviutils. Because the District Minimum Wage (UMK) variable had a probability value of  $0.0001 < 0.05$  and a coefficient value of  $-5.73000$ , the study's findings demonstrated that it had a negative and substantial impact on poverty. With a prob value, the Open Unemployment variable statistically significantly and favorably affects poverty.  $0.0000$  less than  $0.05$ . Furthermore, because the HDI variable has a prob value, research has demonstrated that it significantly and negatively affects poverty. the HDI's ability to lower the number of people living in poverty ( $0.0008 < 0.05$ ). However, because the Foreign Investment variable has a low value, it was unable to demonstrate that it had an impact on poverty. The results indicated that the poverty rate was unaffected by the amount of foreign direct investment, with  $0.7696 > 0.05$ . The study's overall findings demonstrate that 56.8% of poverty can be described by the four independent factors, with the remaining 43.2 percent being explained by variables not included in the research model.

**KEYWORDS:** MSE; Open unemployment; HDI; Foreign Investment; Poverty.

### I. INTRODUCTION

The Central Statistics Agency (BPS) released data in 2023 showing that the percentage of Indonesians living in poverty as of September 2023 was 7.53 percent of the country's total population. This represents an increase from the 7.50 percent of the population as of March 2022. One of the biggest issues facing the administration is poverty. Lack of fundamental needs, including essential food, shelter, health care, and vital safety, is the cause of living in poverty (Bradshaw, 2007). Poverty is a serious issue that is hard to ignore in many Indonesian provinces, including Central Java Province. According to the 2023 BPS report, Central Java ranks seventh among 34 provinces in Indonesia in terms of the number of people living in poverty, with a rate of 10.98 percent as of September 2022—up from 10.93 percent as of March 2022. The growing rate of poverty is viewed as a sign that the government is failing to provide prosperity for its citizens. There are more and more people who are illiterate, unwell, and hungry. This occurs as a result of their struggles to obtain adequate housing, health care, education, and basic necessities. Furthermore, being impoverished can make a person more susceptible to local criminal dangers (Rohima et al., 2013).

The HDI growth, minimum wage, open unemployment, and foreign direct investment in the province of Central Java indicated that in 2021 the HDI was on a scale of 72.16, up 2.3 percent from 2017, but this was less than the national HDI, which is on a scale of 72.29. The increase was not very significant. According to MSEs, the average in 2021 was IDR 2,041,504, up 24.2 percent from the previous year. The percentage of the people experiencing open unemployment in 2021 was 5.95 percent; this represents a 23.2 percent increase from the 4.57 percent rate in 2017. In contrast, foreign direct investment fell by 30.4 percent from 2017 to IDR 1,820,244 million in 2021. Based on these data, it can be concluded that the number of people living in poverty may increase due to the HDI, MSEs, open unemployment, and foreign direct investment. A society's lifestyle and economic conditions are reflected in its HDI (Resce, 2021). The HDI is a composite indicator that evaluates the standard of living, health, and education as the three fundamental components of development (Ladi et al., 2021; Jain & Nagpal, 2019). The findings of earlier research demonstrated that Prasada et al. (2020); Pertiwi & Purnomo (2022) that the HDI has an impact on reducing poverty. But those findings run counter to the study. Sinaga (2020) that the HDI does not help to reduce poverty.

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In order to raise the minimum wage, people must earn more money in order to live comfortably and below the poverty line (Jadoon et al., 2021). Because high pay gains can cover basic expenses, children's education, family health, and the ability to save money for the future, they have an effect on reducing poverty. Previous research findings have demonstrated that raising the minimum wage can have an impact on reducing poverty (Saari et al., 2016; Syauqiah et al., 2022). On the other hand, very low wages might exacerbate poverty (Maroto & Pettinichio, 2022). However, contrary to research by Bird & Manning (2008); Jadoon et al. (2021) that poverty is unaffected by minimum wage. Open unemployment is a socioeconomic issue that can negatively impact people, families, communities, and countries all over the world (Mseleku, 2022). As stated by Saunders (2002) Open unemployment can exacerbate poverty and inequality by creating social sequences that can lessen an individual's, their family's, and their community's open unemployment.

Foreign direct investment is crucial to a nation's development (Ullah & Tahir, 2022). Foreign direct investment in emerging nations that depend on capital inflows to support their economies' expansion (Kumari & Sharma, 2017). This is being done in an effort to boost job creation and infrastructure development, which will boost regional economic growth and reduce the rate of poverty. According to the preceding explanation, the Central Java Province's poverty is influenced by a number of factors, including a dropping HDI, low MSEs, high open unemployment, and a lack of foreign direct investment. Drawing on prior studies and issues contributing to the rise in poverty, the investigator aims to examine the effect of HDI, minimum wage, open unemployment, and foreign direct investment on poverty in Central Java Province for the 2017-2022 period.

## II. METHOD

One kind of scientific inquiry that aims to identify cause-and-effect links between variables is called causal inference research. Poverty (Y), Open Unemployment (X2), UMK City Minimum Wage (X1), Human Development Index (X3), and Direct Foreign Investment (X4) are the four primary variables that are associated with poverty (X4). The Central Bureau of Statistics (BPS) of Central Java Province conducted a survey on the state of poverty in the province from 2017 to 2021, and the results were processed into the poverty statistics used in this study. This study was carried out in the province of Central Java, encompassing six cities and 29 regencies. Static panel analysis of research data evaluated with the Eviews program utilizing the Fixed Effect Model (FEM).

## III. RESULTS AND DISCUSSION

### RESULTS

This study examines factors that may have an impact on poverty in the province of Central Java between 2017 and 2022. through the use of four independent variables: foreign direct investment, HDI, open unemployment, and MSEs. The percentage of the impoverished in each of the districts and cities in the province of Central Java is listed below:

**Table 1. Data Cross Section Research**

No	Regency / City Name	Percentage of Poor People
1	Cilacap District	11,02
2	Banyumas District	12,84
3	Purbalingga District	15,30
4	Banjarnegara District	15,20
5	Kebumen District	16,41
6	Purworejo District	11,53
7	Wonosobo District	16,17
8	Magelang District	11,09
9	Boyolali District	9,82
10	Klaten District	12,33
11	Sukoharjo District	7,61
12	Wonogiri District	10,99
13	Karanganyar District	9,85
14	Sragen District	12,94
15	Grobogan District	11,80
16	Blora District	11,53
17	Rembang District	14,65

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18	Pati District	9,33
19	Kudus District	7,41
20	Jepara District	6,88
21	Demak District	12,09
22	Semarang District	7,27
23	Temanggung District	9,33
24	Kendal District	9,48
25	Batang District	8,98
26	Pekalongan District	9,67
27	Pemalang District	10,06
28	Tegal District	7,90
29	Brebes District	16,05
30	Magelang City	7,10
31	Surakarta City	8,84
32	Salatiga City	4,73
33	Semarang City	4,25
34	Pekalongan City	7,00
35	Tegal City	7,91

**Source:** Statistical Centre Body (BPS) Year 2022

Kebumen Regency is the most impoverished region in Central Java Province, according to the table above. Kebumen's poverty rate in 2022 is 16.41 percent of the total population. Semarang City comes in last on the Central Java Province's list of impoverished people, with 4.25 percent of the whole population. The Central Java Province is represented in the table by 27 regencies and 8 cities, of which 5 regencies and/or cities contribute the most to the variables measuring MSE, unemployment, HDI, and foreign investment. Here is what's offered: Table 5 Cities / Districts The following individuals had the highest contributions to the study's independent variables:

**Table 2. District/City Category of the highest contributor in Central Java Province**

No	District Minimum Wage (Rp)	Open Unemployment (%)	Human Development Index (Scale)	Foreign Investment (Million Rupiah)	Poverty (Thousand Souls)
1	Semarang City 3.060.348	Brebes District 9,48	Salatiga City 84,35	Cilacap District 34992291,60	Brebes District 290,66
2	Demak District 2.680.421	Tegal District 9,04	Semarang City 84,08	Demak District 2495472,80	Banyumas District 220,47
3	Kendal District 2.508.299	Semarang District 7,60	Surakarta City 83,08	Sukoharjo District 1670938,10	Kebumen District 196,16
4	Semarang District 480.988	Kendal District 7,34	Magelang City 80,39	Boyolali District 1518219,50	Pemalang District 195,84
5	Kudus District 2.439.813	Banyumas District 7,05	Wonogiri District 78,66	Semarang District 1156629,60	Cilacap District 190,96

**Source:** Central Agency for Statistics (BPS)

### A. Description of Research Variables

The five primary factors under investigation in this study are MSEs, Open Unemployment, HDI, Foreign Investment, and Poverty. In order to facilitate comprehension of each research variable under test, the features of the research data will be ascertained by descriptive statistical analysis. The outcomes of the research variable description are as follows:

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**Table 3. Characteristics of Research Variables**

Variable	Average	Standard Deviation	Minimal	Maximum
MSE (Rp)	1.876.413,41	292.724,09	1.370.000	3.060.348
Open Unemployment (%)	5.09	1.78	1.76	9.82
HDI (Skala)	71.86	4.91	60.44	84.35
Foreign Investment (Million Rp)	309683.50	2429369.50	.00	34992291.60
Kemiskinan(Ribu Jiwa)	114.35	65.16	8.65	343.50

Table 3 illustrates that in the province of Central Java, the average MSE across 29 regencies and 6 cities is Rp 1,876,413.41, with a variation of Rp 292,724.09. In 2022, Semarang City had the highest MSE of IDR 3,060,348; in 2017, Banjarnegara Regency recorded the lowest MSE of IDR 1,370,000. In the meantime, open unemployment had an average rate of 5.09 percent and a 1.78 percent variability. In 2020, Tegal Regency had the greatest rate of open unemployment (9.82 percent), while Rembang Regency had the lowest rate (1.76 percent) in 2022. The Central Java Province's average HDI, with a variability of 4.91, is 71.86 in 29 regencies and 6 cities. Salatiga City recorded the greatest HDI in 2022 at 84.35, while Banyumas Regency recorded the lowest HDI in 2021 at 60.44. In the meantime, the average amount of foreign direct investment was 309,683.50 million rupiah, with a 24-29369.50 million rupiah fluctuation. The Cilacap Regency saw the largest foreign investment in 2022, totaling 34992291.60 million rupiah, whereas Temanggung Regency saw the lowest foreign investment in 2017, Pekalongan Regency in 2018, 2019, 2020, and Pekalongan City in 2017. In the province of Central Java, the average poverty rate is 114,350 thousand, with a variation of 65.16 thousand individuals among 29 regencies and 6 cities. 343.5 thousand people lived in the Brebes Regency at the highest point of poverty in 2017, whereas 8.65 thousand people lived in Magelang City at the lowest point in 2022. The trends for the 2022 era are also evident in the description of the research variables.

### B. Uji Hypoplant

Ghozali (2018) states that the t test is an individual test used to determine the correlation between independent and bound variables (partial). In this investigation, the t-test was applied at a significance level of 0.05.

**Table 4. Partial Test (T Test)**

Variable	Coefficient	Standard Deviation	t-Statistics	Probability
C	32.8310	2.725352	12.046517	0.0044
MSE	-5.73000	1.310000	-4.374046	0.0001
Pengangguran Terbuka	3.45168	1.079126	3.198588	0.0000
HDI	-5.0420	1.043300	-4.832742	0.0008
Investasi Asing	-3.96000	3.050000	-1.298361	0.7696

The value of prob. on the MSE variable (X1) of 0.0001 with a coefficient value of -5.73000 can be determined from the given table. This indicates that Poverty (Y) is significantly and partially impacted by the MSE variable (X1); for every unit increase in MSE (X1), Poverty (Y) will drop by 5.73000 units. Therefore, hypothesis 1 (H1) is agreed upon. Conversely, prob. Foreign Investment (X4) has a coefficient value of 3.45168 and a value of 0.0000. This indicates that Poverty (Y) is somewhat positively and significantly impacted by the Open Aggression variable (X2); for every unit rise in X2, Poverty (Y) will increase by 3.45168 units. The acceptance of hypothesis 2 (H2) follows. In the HDI variable (X3), prob. has a value of 0.0008 and a coefficient value of -5.0420. This indicates that Poverty (Y) is significantly and partially impacted by the HDI variable (X3); for every unit rise in X3, Poverty (Y) will drop by 5.0420 units. The acceptance of hypothesis 3 (H3) follows. In the variable Foreign Investment (X4), prob. has a value of 0.7696 and a coefficient value of -3.96000. Thus, there is no partial significant influence of the Foreign Investment variable (X4) on Poverty (Y). Hypothesis 4 (H4) is therefore disproved.

The results of the variables MSE (X1), Open Unemployment (X2), HDI (X3), and Foreign Investment (X4) simultaneously effect Poverty (Y) based on Test F that was conducted on the aforementioned analysis's results. This is because the prob value obtained is 0.003, or smaller than 0.05. Ghozali (2018) claims that the R2 test basically calculates the proportion of the dependent variable's magnitude that can be accounted for by the independent variable employed as a criteria. The researcher acquired a coefficient of determination of 0.432566 for the number obtained based on the results of the R2 Test. This indicates that 43.2

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percent of the Poverty bound variable (Y) is explained by all independent variables (MSEs (X1), Open Unemployment (X2), HDI (X3), and Foreign Investment (X4)), with the remaining 56.8 percent being explained by factors not included in this research model.

### DISCUSSION

The impact of MSEs on poverty in the province of Central Java is examined in this study from 2017 to 2022. The study's findings demonstrated that MSEs have a prob value.  $0.0001 < 0.05$ , indicating a statistically significant impact of MSEs on poverty. The study's findings were successful in supporting the premise put out in order for H1 to be approved. The findings of earlier research, such as that of Saari et al. (2016), which demonstrates that the minimum wage significantly affects the reduction of poverty, corroborate the findings of this study. MSE are used to measure minimum wage. By giving workers higher wages that can improve their standard of living and push them over the poverty line, an increase in MSEs can aid in the reduction of poverty. Minimum wage laws seek to guarantee that workers, particularly in low-wage industries, receive a specific amount of pay for their efforts by lowering the wage ceiling. This could lessen poverty among those who are most vulnerable and minimize income disparity.

The next variable's research results demonstrate that open unemployment has a prob value. Since open unemployment statistically influences poverty ( $0.0000 < 0.05$ ), H2 is accepted. The findings of this study are consistent with a number of earlier investigations, including those carried out by Siyan et al. (2016), which demonstrated that open unemployment has a substantial impact on poverty increases. When someone is jobless, they frequently deal with a number of issues that can push them into poverty. People who are unemployed lose their income, which leaves them without the means to meet their fundamental necessities. It gets more difficult to pay for needs like food, housing, healthcare, and education when one does not have a consistent source of income. The following hypothesis looks at the correlation between poverty and the HDI and has a prob value.  $0.0008$  is less than  $0.05$ . According to the findings, HDI has a major impact on poverty, which is why H3 is approved. The findings of this investigation support those of Pertiwi & Purnomo's (2022) study, which found that HDI effectively reduces poverty. Countries with lower HDI values tend to have higher rates of poverty, whereas those with higher HDI values typically have lower rates. This relationship can be explained by the fact that elements that lower poverty and raise HDI, such as income, access to healthcare, and education, do both.

Research on the relationship between poverty and foreign investment has a prob value. by  $0.7696$  greater than  $0.05$ . These findings demonstrate that foreign investment has no discernible impact on poverty, leading to the rejection of H4. The findings of this study contradict those of Dhahri & Omri's (2020) research, which demonstrates that foreign investment significantly reduces poverty. The host nation may benefit from new industries and enterprises brought in by foreign direct investment. For instance, money needed to build factories, offices, and manufacturing facilities. The local labor force may be able to find job as a result, especially in industries that may not have had much development in the past. The creation of jobs can raise living standards and income levels, which will eventually lower the rate of poverty.

### IV. CONCLUSIONS

Consistent with the conclusions of Saari et al., the study's results showed that the District Minimum Wage (UMK) significantly lowers the poverty rate (H1 received) (2016). According to research by Siyan et al., open unemployment contributes significantly favorably to poverty (H2 received) (2016). According to H3 received, the Human Development Index (HDI) significantly reduces poverty, which is consistent with Pertiwi & Purnomo's findings (2022). In contrast to Dhahri & Omri's results, foreign investment has not been demonstrated to significantly worsen poverty (H4 is rejected) (2020). One possible reason could be the inadequate infrastructure in Central Java Province, specifically in Kebumen District, which requires enhancement to boost investment appeal and reduce poverty.

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