ANALYSIS OF FACTORS INFLUENCING POVERTY IN SUNGAI PENUH CITY

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ABSTRACT
This study investigates the factors influencing poverty in Sungai Penuh City, Jambi Province, focusing on population growth, economic expansion, human development, unemployment, and income inequality from 2008 to 2022. Poverty in Sungai Penuh City is a critical issue addressed by regional development policies aimed at reducing the income disparity. The research utilized quantitative descriptive analysis and multiple linear regression to analyze the data. Findings indicate that over the study period, the average poverty rate rose by 3.28%, population growth averaged 1.55% annually, economic growth increased by 5.72%, the human development index improved by 0.75%, income inequality grew by 0.35%, and the unemployment rate surged by 7.03%. The results reveal that population growth significantly exacerbates poverty, whereas improvements in the human development index significantly reduce it. However, economic growth, income inequality, and unemployment rates showed a positive but insignificant impact on poverty levels in Sungai Penuh City.

ARTICLE INFO

Keywords:
Poverty, Population, Economic growth, Human development index.
1.0 INTRODUCTION

The Indonesian government acknowledges that national development is essential for realizing a just and prosperous society. This recognition aligns with strategic efforts aimed at regional development, particularly in areas marked by increasing poverty each year. Development activities are carried out in an integrated and sustainable manner, tailored to the unique needs of each region, all while adhering to national development objectives established for both long-term and short-term plans (Sukirno, 2014).

The effectiveness of various development strategies or instruments is primarily judged by their ability to decrease the number of people living in poverty. This criterion guides the selection of core sectors in national development planning. Economic development, encompassing both micro and macro aspects, is subject to varying impacts—both positive and negative. Thus, clear indicators are needed to measure development progress and its impacts (Kuncoro, 2014).

A nation is deemed successful in its economic development if it solves three critical issues: the growing number of impoverished individuals, the worsening distribution of income, and the need for more diverse employment opportunities to absorb job seekers. In Jambi Province, specifically in Sungai Penuh City, tackling poverty is a significant policy target aimed at reducing income disparities (Todaro, 2014). Poverty is recognized as a multidimensional issue in development, encompassing economic, social, and political dimensions.

Sungai Penuh City, which was part of Kerinci Regency, faces unique economic development challenges. Its dependency on the economic activities of Kerinci Regency, supplemented by support from the Jambi Provincial Government, hampers its ability to effectively address poverty (Basri & Munandar, 2009). This dependency underscores the city’s struggle to emerge from poverty, a condition exacerbated by its relatively new administrative status.

Economic challenges in Sungai Penuh City, as seen between 2017 and 2021, include fluctuating conditions and a tendency for poverty rates to increase. Both central and local governments have attempted various poverty reduction policies and programs, yet these have fallen short of their goals. The existing policies and programs have not achieved optimal results, highlighting a gap between planning and the achievement of objectives due to their overly sectoral focus (Mei et al., 2016).

Addressing the challenge of poverty in Sungai Penuh City requires an integrated, comprehensive, and synergistic strategy that can fully address the problem. The ongoing issue of poverty remains a central target in development programs and underscores the need for effective strategies that ensure inclusive growth and benefit all segments of society. This comprehensive approach is crucial for fostering long-term sustainable development that genuinely enhances the quality of life for the residents of Sungai Penuh City and beyond (Dahalan et al., 2020).

2.0 LITERATURE REVIEW

The literature on the factors influencing poverty in Sungai Penuh City highlights several key dimensions: population growth, economic growth, Human Development Index (HDI), income inequality, and unemployment rates. Each factor plays a distinct role in shaping the socio-economic landscape of the region.

Population Growth:

Population dynamics significantly impact poverty levels in urban settings. Malthus's theory suggests that unchecked population growth can lead to resource depletion and increased poverty (Kuncoro, 2014). In Sungai Penuh City, rapid population increase strains the limited economic resources, exacerbating poverty conditions as infrastructural and service demands outpace growth.
Economic Growth:
Economic growth is widely recognized as a powerful driver of poverty reduction. However, its effectiveness depends on the distribution of the economic benefits across all social strata (Tan, 2022). Growth needs to be inclusive, benefiting not just the affluent but also the most marginalized, ensuring that improvements in GDP translate into real enhancements in the quality of life for the poor.

Human Development Index (HDI):
The HDI provides a more comprehensive measure of economic development, factoring in health, education, and income. Regions with higher HDI scores generally exhibit lower levels of poverty due to better access to essential services and opportunities. Improvements in HDI in Sungai Penuh City could therefore indicate progress in tackling the multidimensional aspects of poverty.

Income Inequality:
Income disparity is a critical issue that often accompanies economic development. High levels of inequality can negate the benefits of economic growth, as the poorest fail to see significant improvements in their living standards. This discrepancy can lead to a cycle of poverty that is difficult to break without targeted interventions to redistribute wealth more equitably (Sukirno, 2014).

Unemployment Rate:
The unemployment rate is directly linked to poverty levels, with higher unemployment correlating with increased poverty (Sukirno, 2014). Job creation is therefore a crucial aspect of poverty reduction strategies. In Sungai Penuh City, fluctuations in unemployment rates have had noticeable impacts on poverty, with lower unemployment generally leading to improvements in poverty indices.

3.0 METHODOLOGY

The data analysis method employed in this study is quantitative descriptive analysis, specifically focusing on the effects of various variables such as population growth, economic development, Human Development Index, income inequality, and unemployment rate on poverty in Sungai Penuh City. Multiple linear regression is used to examine these relationships, utilizing a regression equation model based on natural logarithms.

\[
Y = \alpha + \beta_1 \log(X_1) + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e
\]

Information:

\( Y \) = Poverty
\( X_1 \) = Number of inhabitants
\( X_2 \) = Economy Growth
\( X_3 \) = Human development index (IPMI)
\( X_4 \) = Inequality

Test F Statistics

The statistical test f is used to show whether independent variables that have been included in model have influence together on dependent variables (Ghozali, 2009). If the probability value in the f test is less than 5%, then the regression...
model used is feasible. If the probability value in testing is more than 5%, then the regression model used is not feasible.

**Uji T Statistics**

According to Ghozali (2009), the t test aims to show how far influence one independent variable individually in explaining dependent variable variation. The t test in this study used a significance of 5%. The hypothesis research stated accepted if probability value less than 5% which states that independent variable affects dependent variable. The research hypothesis is stated to be rejected if the probability value is more than 5% which means that the independent variable does not affect dependent variable.

**Coefficient of Determination**

The coefficient of determination (R²) essentially measures how far the model is able to explain the variation of the independent variable. The value of the coefficient of determination between 0 and 1 (0<R²<1), a small value (R²) means that the ability of independent variables to explain the variation of independent variables is very limited. A value close to 1 means that the independent variable provides almost all the information needed to derive a prediction of the dependent model's variation. The higher the value of the coefficient of determination, the better the ability of the independent variable to explain the dependent variable (Ghozali, 2009).

**4.0 FINDINGS AND DISCUSSION**

This analysis was conducted to determine how much influence the variables of population, growth, human development, Sungai Penuh City, then analyzed with multiple linear regression models. The data used in the 2008-2022-time series, namely with the number of frequency distributions of 15 years, the regression equation model uses a semi-log model, meaning that population data is converted into data in the form of Natural Logarithms (Ln), which aims to interpret parameters as elasticity (linear), then the estimation results are as follows:

<table>
<thead>
<tr>
<th>Table 1 Multiple Linear Regression Analysis Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1 (constant)</td>
</tr>
<tr>
<td>Population</td>
</tr>
<tr>
<td>Economic growth</td>
</tr>
<tr>
<td>HDI</td>
</tr>
<tr>
<td>inequality</td>
</tr>
<tr>
<td>unemployment rate</td>
</tr>
</tbody>
</table>

Based on Table 1 of the research results, the regression equation is known as follows:

\[
KM = -81.806 + 21.119 \text{ Log } JP + 0.046 \text{ PE} - 0.294 \text{ IPM} + 5.165 \text{ KP} + 0.021 \text{ TP}
\]
Based on the regression equation above, it can be interpreted that the value of the coefficient of constant of -81.806 means that if the variables of population, economic growth, human index, income inequality, and unemployment rate have a value equal to zero or unchanged, poverty in Sungai Penuh City decreases by percent. For an explanation of the regression coefficient value of each variable as follows: The population variable has a regression coefficient value of 21.119 that is, if the population variable increases by 1 percent, poverty in Sungai Penuh City increase by 21.119 percent. The economic growth variable has a regression coefficient value of 0.046, meaning that if the economic growth variable increases by 1 percent, poverty in Sungai Penuh City increases by 0.046 percent. The human development index variable has a regression coefficient value of 0.294, meaning that if the human development index variable increases by 1 percent, poverty in Sungai Penuh City decreases by 0.294 percent. The income inequality variable has a regression coefficient value of 5.165, meaning that if the income inequality variable increases by 1 percent, poverty in Sungai Penuh City increases by 5.165 percent. The unemployment rate variable has a regression coefficient value of 0.021, meaning that if the unemployment rate variable increases by 1 percent, poverty in Sungai Penuh City increases by 0.021 percent.

**Test F Statistics**

Seeing the influence simultaneously, a hypothesis test was carried out with f Statistics with the number of frequency distributions of 15 observations, so that to determine the value of f table, namely \( f = N-n \) with the calculation \( (15-5-1 = 9) \) then the value of f table is 3.48 with a significance level of 95 percent or alpha 0.05, here are the estimated results, namely:

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Say.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1.467</td>
<td>5</td>
<td>.293</td>
<td>7.656</td>
<td>.005b</td>
</tr>
<tr>
<td>Residual</td>
<td>.345</td>
<td>9</td>
<td>.038</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1.812</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent variable: Poverty
b. Predictors: (constant), unemployment rate, inequality, economic growth, HDI, population Source: data processed, 2023

Based on Table 2 shows that the statistical f hypothesis test with a significance level of 95 percent is known to be the statistical f value with f table then \( 7.656 > 3.48 \) or has a significant value \( 0.005 < 0.05 \), then Ho is rejected and Ha is accepted. This means that all regression coefficients or all independent variables namely population, growth, human index together affect poverty in Sungai Penuh City.

**Uji T Statistics**

In looking at the partial influence, a hypothesis test was carried out with t statistics with the number of frequency distributions of 15 observations, so that to determine the value of t table, namely \( t = N-n \) with the calculation \( (15-5-1 = 10) \) then the value of t table is 2.228 with a significance level of 95 percent or alpha 0.05, here are the estimated results, namely:

### Table 3 Partial Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>t Statistics</th>
<th>t Table</th>
<th>Say</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>2.636</td>
<td>2.228</td>
<td>0.027</td>
<td>Significant</td>
</tr>
</tbody>
</table>
Based on Table 3 shows that the population variable has a significant effect on poverty because the significance value is $0.027 < 0.05$, while the calculated $t$ value is $2.636 > 2.228$ $t$ Table, then $h_0$ is rejected and $h_a$ is accepted, meaning that at the level of significance 95 percent of the population variable has a positive and significant effect on poverty in Sungai Penuh City. The economic growth variable has no significant effect on poverty because the significance value is $0.299 > 0.05$, while the calculated $t$ value is $1.101 < 2.228$ $t$ Table, then $h_0$ is accepted and $h_a$ is rejected, meaning that at the level of significance 95 percent the economic growth variable has a positive and insignificant effect on poverty in Sungai Penuh City. The human development index variable has a significant effect on poverty because the significance value is $0.006 < 0.05$, while the calculated $t$ value is $-3.573 > 2.228$ $t$ Table, then $h_0$ is rejected and $h_a$ is accepted, meaning that at the level of significance 95 percent the human development index variable has a negative and significant effect on poverty in Sungai Penuh City. The income inequality variable does not have a significant effect on poverty because the significance value is $0.327 > 0.05$, while the calculated $t$ value is $1.036 < 2.228$ $t$ Table, then $h_0$ is accepted and $h_a$ is rejected, meaning that at the level of significance 95 percent the income inequality variable has a positive and insignificant effect on poverty in Sungai Penuh City. The variable unemployment rate does not have a significant effect on poverty because the significance value is $0.413 > 0.05$, while the calculated $t$ value is $0.859 < 2.228$ $t$ Table, then $h_0$ is accepted and $h_a$ is rejected, meaning that at the level of significance level of 95 percent the unemployment rate variable has a positive and insignificant effect on poverty in Sungai Penuh City.

**Coefficient of Determination**

The coefficient of determination is measured by the value of R Square which shows how much the independent variable (exogenous) affects the dependent variable (endogenous), here are the estimated results, namely:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.900a</td>
<td>.810</td>
<td>.704</td>
<td>.19575</td>
<td>2.171</td>
</tr>
</tbody>
</table>

a. Predictors: (constant), unemployment rate, inequality, economic growth, HDI, population  
b. Dependent variable: kemiskinan  
Source: data processed, 2023

Based on Table 4 that the residual coefficient of determination of 0.810 shows the magnitude of the influence of population, human index, income inequality.
The Effect of Population On Poverty in Sungai Penuh City

The results showed that the population had a significant effect on Poverty in Sungai Penuh City, the number of people in the economic development of an area is a fundamental problem, because uncontrolled population growth can result in not achieving the goals of economic development, namely people's welfare and reducing poverty. According to Nelson and Leibstein in Sukirno (2014) there is a direct influence between population growth on the level of community welfare. Nelson and Leibstein in Sukirno (2014) show that rapid population growth in developing countries causes the level of people's welfare to not experience significant improvements and in the long run will experience a decrease in welfare and increase the number of poor people. In accordance with Malthus's theory, higher population growth can increase the number of poverty rates in an area, this is due to the imbalance between population growth and food production growth. Where population growth is faster than production growth, making it difficult for the population to meet their needs (Todaro, 2014). In addition, several studies related to the effect of population growth on poverty also found that population growth affects poverty. Based on research conducted by Alam et al (2021) states that residents have a positive influence on poverty, research conducted by Basri Tarmizi (2014) states that residents have a positive influence on poverty. However, in contrast to research conducted by Mok and Sanyal (2007) states that the population can reduce poverty. So it can be known that population is positively related to poverty, this means that the more the population increases, the more the number of poor people.

The Effect of Economic Growth On Poverty in Sungai Penuh City

The results showed that Economic growth has no effect significant to Poverty in Sungai Penuh City. Any changes that occur in economic growth will not have any effect on poverty, the results of this study are contrary to the theory in Todaro's book (2014) which states that Penuh concentration on reducing poverty will slow down the growth rate in proportion to the argument that low levels of inequality will experience slow growth rates. Economic growth correlates positively with the number of poor people. This means that the more economic growth increases in Sungai Penuh City, the poverty increases. The impact of increasing the contribution and absorption of labor in the economic sector has not been able to reduce the number of poor people. In addition, several studies related to the effect of economic growth on poverty also found that economic growth has no effect on poverty. Based on research according to Zuhdiyaty and David (2017) states that economic growth does not affect poverty, this shows that existing growth is of poor quality so that it does not affect poverty. Then, according to research conducted by Romi and Etik Umiyati (2018), the results that economic growth does not have a significant effect on poverty. However, different results were obtained from research conducted by Hendri and Taufan Iswandi (2022), where the results obtained that the economic growth rate had a significant effect on poverty. Therefore, good economic growth will certainly be able to overcome the problem of poverty. However, large economic growth also does not necessarily have a direct impact on reducing the poverty rate, because it must be seen in advance how the structure of economic growth is formed.

The Effect of the Human Development Index On Poverty in Sungai Penuh City

The results showed that the human development index has a significant effect on poverty in Sungai Penuh City, poverty has a serious impact on people's welfare because the problem of poverty is a complex problem that actually starts from the ability of people's purchasing power that is unable to meet their needs. This makes the human development gap between the two become large and in the end the HDI achievement target determined by the government becomes well realized, the human development index is able to reduce poverty, the increase in HDI that occurs is quite large, indicators of high productivity will obtain better welfare, which is shown through an increase in income and consumption. However, if the low productivity of the poor can be caused by low access of the community to improve their quality and skills. In accordance with the theory of Bellante and Jackson in Todaro (2014) that productivity will increase while the use of labor also increases. Increased productivity in this case is an increase in education and health which is included in the human development index, further Bellante and Jakon explained that the increase in productivity will reduce the poverty rate. If HDI increases and people's consumption levels increase so that they are able to meet their basic needs, it
The Effect of Income Inequality On Poverty in Sungai Penuh City

The results showed that income inequality has no effect significant to poverty in Sungai Penuh City. Income distribution is a reflection of the equitable or unequal level of income and is a major determinant of poverty. Where poverty itself is determined by the average per capita expenditure of the population below the poverty line. So it can be concluded that the increase in income inequality caused by the decline in the level of labor income, indirectly attracts the population group that initially had an average expenditure above the poverty line to an average expenditure below the poverty line. Conceptually and theoretically poverty causes inequality Income distribution among rich and poor increasingly. As it is express by Arsyad (2017) did not achieve the reduction means on angka kemiskinan resulting in inequality in distribution income in Developing countries increasingly. For a reason that, the decline kemiskinan sangat required, in order to Income inequality in society increasingly. Inequality is a side effect caused by inequality in the process of economic development (Sukirno, 2014). When a region only focuses on increasing economic growth, it does not necessarily guarantee equal distribution of income and community welfare. Where the rate of economic growth will always be related to inequality so that it has a positive impact on poverty. As for some Related Research Relationship of influence Income inequality against poverty.

The Effect of Unemployment Rate On Poverty in Sungai Penuh City

The results showed that unemployment did not have a significant effect on the poverty of Sungai Penuh City, with increasing unemployment in an area having a positive impact on poverty, meaning that if the unemployment rate increases, poverty will also increase. Unemployment is the entire population in an area, both men and women who are not working or are looking for work to produce goods or services to meet the needs of the people in the region. An important factor that can determine the prosperity of a society is the level of income. If people in an area have a high unemployment rate, the level of income obtained by the community will decrease and be unable to meet their needs (Todaro, 2014). This is similar to Sukirno’s theory (2011) that the impact of unemployment is to reduce people’s income which eventually decreases people’s welfare and then allows falling into poverty. Various studies have shown that there is a significant relationship between open unemployment and poverty. Based on previous research conducted by Suripto and Lalu Subayil (2020) stated that unemployment does not have a significant effect on poverty, research according to Achiyarnis Lilik Andrietya (2020) states that the unemployment rate has a negative insignificant effect on poverty, research according to Dimas & Ganjar (2021) states that unemployment has an insignificant positive impact on poverty. However, in contrast to the results obtained from Alhudori (2017) stated that HDI is positively related to poverty.

5.0 CONCLUSION

The results of multiple linear regression estimates show that population has a positive and significant effect on poverty in Sungai Penuh City, and the human development index has a negative and significant effect on poverty in Sungai Penuh City. Meanwhile, economic growth, income inequality and unemployment have a positive and insignificant effect on poverty in Sungai Penuh City. With increasing population growth, efforts are needed to improve human development, the current increase in the Human Development Index has become a reflection of how good the quality of
life of the population is, however, this increase can at least be accompanied by increased investment growth, job availability and an increase in the minimum wage. This is considering the increasing number of educated unemployed who in fact are a reflection of improving the quality of life of the community but cannot be productive in economic activity. The Government is expected to be able to formulate and implement policies in economic development in Sungai Penuh City, the Government is expected to expand infrastructure development as an effort for regional development, the Government is expected to provide employment in accordance with the number of labor force in Sungai Penuh City, and be able to maximize all regional income, patterns of equitable distribution of income, and economic growth to reduce inequality and poverty.

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