Impact of Economic Growth, Inflation on Poverty in North Sumatra Province

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ABSTRACT

The high poverty rate is a strategic problem faced by the North Sumatra region. poverty is still a serious problem, demonstrated by the vast majority of people who still do not meet their basic needs. this study aims to analyze the impact of economic growth, inflation and poverty in the northern Sumatra region. the method of research that is used is quantitative research using data Times series and cros section. this study uses a double linear regression analysis. based on the results of Panel data regresi with random effect model, it is known that economic growth does not affect poverty, but inflation has a positive and significant effect on the poverty rate with T-sign inflation (-4.984).

DAMPAK PERTUMBUHAN EKONOMI, INFLASI TERHADAP KEMISKINAN DI PROVINSI SUMATERA UTARA

ABSTRAK

Kadar kemiskinan yang tinggi adalah masalah strategik yang dihadapi oleh wilayah Sumatera Utara. Kemiskinan masih menjadi masalah serius, ini ditunjukkan oleh sebagian besar orang yang masih kurang memenuhi keperluan asas mereka. Kajian ini bertujuan untuk menganalisis kesan pertumbuhan ekonomi, inflasi terhadap kemiskinan di daerah/bandar di wilayah Sumatera Utara. Kaedah penyelidikan yang digunakan adalah penyelidikan kuantitatif menggunakan data data times series dan cros section. Kajian ini menggunakan analisis regresi linear berganda. Berdasarkan hasil panel data regresi dengan random effect model diketahui bahwa

pertumbuhan ekonomi tidak mempengaruhi kemiskinan, tetapi inflasi berpengaruh positif dan signifikan terhadap tingkat kemiskinan dengan t-sign inflasi (-4.984).

INTRODUCTION

The Central Statistics Agency (BPS, 2021) has announced that Indonesia's economy saw a 7. 07% annual growth in the second quarter of 2021. Moreover, the Indonesian economy saw a 3. 31 percent growth in the second quarter of 2021 compared to the previous quarter. Indonesia's economic improvement in the second quarter of 2021 was primarily fueled by enhanced export performance, boosted household consumption, increased investment, and strengthened government consumption.This economic improvement demonstrates that Indonesia has successfully rebounded after facing challenges in the past few quarters as a result of the Covid-19 pandemic. Please rewrite this text in a smooth and flowing style, ensuring that the necessary line breaks are included.

An uptick in the economy is definitely promising, yet it remains crucial to prevent any potential downturn in the upcoming quarter. Investment plays a crucial role in Indonesia's economic development.Investment performance, one of the key factors driving growth, started to rise, reaching 7. 54% year-on-year. Please add two tags where a line break is needed.

The local government acknowledges that enhancing economic performance requires investing in the country's development to generate employment opportunities and improve living standards, ultimately fostering regional well-being.Numerous development initiatives and projects are primarily focused on advancing districts/cities, particularly those with significant poverty levels. Please add a line break where needed.

Regional development must certainly be carried out in an integrated and sustainable manner in accordance with the priority needs of each region. Regional development targets have been set through long-term and short-term development. One of the main indicators of the success of Regional Development is the rate of decline in the number of poor people (Dermoredjo, 2003). Uncertain economic growth movements, high levels of unemployment and rising inflation affect the composition of society consisting of poor and non-poor people. The poor are classified into those who have an average per capita expenditure per month below the poverty line. Poor families basically consist of families whose income and economic level are low.

When compared to the other seven provinces on the island of Sumatra, the average poverty rate in North Sumatra is ranked fifth below. I linger in Aceh, where the average poverty rate reaches 15. 25 percent. Please add line breaks where needed in the text.

The issue of poverty in Indonesia is impacted by various factors.Factors include slow economic growth, a low Human Development Index,high inflation, and rising unemployment. Please rewrite this text utilizing a smoother writing style and insert two line breaks where necessary.

It is widely understood that economic growth serves as a key indicator of success in developmental progress. Although the primary objective of economic growth is to enhance production capacity.To boost production capacity, extra labor

is necessary, leading to a decrease in the number of unemployed individuals and a reduction in the poverty rate (Wijayanto, 2010). Please kindly add two line breaks where necessary.

According to Wiguna (2013), one of the indicators used to observe the symptoms of economic growth in a country or region during the process of economic development is the Gross Regional Domestic Product (GRDP). Through GRDP, the economic activities undertaken and accomplishments made by a country or region in a particular timeframe can be observed. Please add two br tags to indicate where a line break is needed.

To assess poverty, BPS utilizes the concept of the ability to fulfill basic needs (basic needs approach). This concept pertains to the handbook on poverty and inequality published by the World Bank.With this perspective, poverty is regarded as occurring when the economy cannot fulfill both food and non-food necessities, as assessed from the expenditure angle.A population is considered poor if their average monthly per capita spending falls below the poverty line. Indonesia, being a developing country, reflects a low standard of living and material well-being. In developing nations, a minimal income is needed to cover essential needs. Individuals living below the poverty line continue to reside in cramped accommodations with inadequate access to proper sanitation facilities.Please add line breaks where necessary for a smoother reading experience.

North Sumatra region, being one of the largest regions in Indonesia, is also grappling with issues of poverty.Although the level of poverty in Indonesia, particularly in North Sumatra, has been decreasing year by year, the numbers are still quite high.The government is implementing a range of initiatives to alleviate poverty by offering direct cash aid to those in need. This support extends to small and medium-sized businesses and employees in the private sector, aimed at boosting the overall purchasing abilities of individuals. Nonetheless, the effect on the poverty rate in Indonesia has not been significant. Please add line breaks where needed, in a smooth and flowing manner.

Economic growth will have a positive impact on labor demand, consequently reducing the unemployment rate. The connection between poverty and economic growth is intertwined with the level of Educational Labor and its impact on productivity. As the quality of education increases, so does labor productivity, consequently leading to wage hikes. This, in turn, affects the purchasing power of individuals and inflation rates in Indonesia.

Inflation, being the tendency for prices of goods to generally and continuously increase, is a factor that can influence the poverty level of a society. Rising prices prompt the government to implement a range of monetary and fiscal policies.When inflation arises, the government needs to decrease the deficit in order to manage inflation and lower the purchasing power of individuals.Please add two line breaks where the text requires a separation.

METHODS

The types and sources of data used in this study are secondary data from the Central Bureau of Statistics (BPS). The secondary data utilized in this study is a blend of cross-sectional data from 39 districts/cities in North Sumatra province and the time series from 2012 to 2021, commonly known as panel data.This study aims to explore the interconnected relationship between independent variables such as

economic growth, inflation, and unemployment, and the dependent variable, which is the level of poverty. Please add line breaks by inserting two br tags where necessary.

The data collection method in this study involves quantitative data from secondary sources, gathered through intermediaries such as books, previous journals, and existing evidence.The data sources utilized in this study come from a variety of sources obtained through the Central Bureau of Statistics (BPS) of North Sumatra province, as well as from books, previous journals, and websites that can enrich the progress of this research. The choice of secondary data is made in order to enhance the accuracy of the data being processed. Insufficient data can lead to the failure of research projects that researchers undertake. The data collected is then quantitatively processed and analyzed through multiple regression.Please add a line break where indicated.

RESULTS AND DISCUSSION
Results
Hypothesis Test Results

Based on the results of the model test where the best model is produced CEM (Common Effect Model), then the hypothesis test in this study was conducted with the CEM model for multiple linear regression analysis with the following results :

Table 1. Multiple Linear Regression Test Results

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	10.68877	0.247589	43.17149	0.0000
X1(Economic Growth)	-0.121202	0.027654	-4.382790	0.0000
X2(Inflation)	-0.075168	0.015081	-4.984422	0.0000
R-squared	0.527973	Mean dependent var		6.266424
Adjusted R-squared	**0.523629**	S.D. dependent var		2.300913
S.E. of regression	1.588081	Akaike info criterion		3.774977
Sum squared resid	822.1727	Schwarz criterion		3.821027
Log likelihood	-618.8713	Hannan-Quinn criter.		3.793346
F-statistic	**121.5463**	**Durbin-Watson stat**		**2.137232**
Prob(F-statistic)	**0.000000**			

Source: BPS Indonesia (processed data, 2023)

F Test Results Simultaneously

Test F simultaneously the effect of variables X1 (economic growth), X2 (inflation) and X3 (unemployment) on the level of poverty (Y) showed the following results;

Table 2. F Test Results Simultaneously

F-hitung	Probabilitas (p)	F-tabel	Conclusion
121.546	0.000	8.53	Simultaneously, a significant effect

Source: F Test Results Simultaneously, 2023.

Table 2 shows the value of F-count = 121.54 with the value of sig-p=0.000, when compared with the value of F-table = 8.53 (for N =330 or df= 327) and sig-p = 0.05, it can be concluded that simultaneously, the 2 independent variables have a significant effect on the dependent variable Y (poverty level).

Partial t-test results

The partial t-test of the effect of variables X1 (economic growth), X2 (inflation) and X3 (unemployment) on the poverty level (Y) showed the following results ;

Table 3. Partial t-test results

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	10.68877	0.247589	43.17149	0.0000
X1(Economic Growth)	-0.121202	0.027654	-4.382790	0.0000
X2(Inflation)	-0.075168	0.015081	-4.984422	0.0000

Source: panel data analysis results, 2023.

Interpretation :
Effect of economic growth (X1) on poverty rate (Y)
Table 1 shows the value of t-calculate X1 (economic growth)= -4.382 with significance value (p) = 0.000. When compared with the value of t-count = 1.96 (for N = 330 or df= 327), and sig-p = 0.05, it can be seen that t-count X1 (4.382) > t-table (1.96) and sig-p (0.000) < 0.05, so it can be concluded that the variable X1 (economic growth) has a significant negative effect on the dependent variable Y (economic growth). In other words, the lower the economic growth, the higher the poverty rate.

Effect of inflation (X2) on poverty rate (Y)
Table 1 shows the calculated t-value X2 (inflation)= -4.984 with significance value (p) = 0.000. When compared with the value of t-count = 1.96 (for N = 330 or df= 327), and sig-p = 0.05, it can be seen that t-count X2 (-4.984)> t-table (1.96) and sig-p (0.000) < 0.05, so it can be concluded that the variable X2 (inflation) has a significant negative effect on the dependent variable Y (poverty level). In other words, the higher the inflation rate, the higher the poverty rate.

The Result Of The R Test

Determination test r the effect of variables X1 (economic growth), X2 (inflation) and X3 (unemployment) on the poverty rate (Y) showed the following results ;

Table 4. The Result Of The R Test

R-square	Adjusted R-square
0.527973	**0.523629**

Source: the result of the R Test, 2023.

The test results of determination of R in Table 4 shows that the value of adjusted R-square = 0.5236. This means that the magnitude of the influence of the 2 independent variables to the dependent variable Y is equal to 0.5236 x 100% = 52.36%. This means that 52.36% of poverty variables can be explained by the 3 independent variables, while the rest (67.74%) is explained by other factors that are not studied.

Panel Data Regression Equation
Based on the coefficient value of each independent variable, the panel data regression equation can be described as follows ;

Table 5. Result Of Multiple Linear Regression Equation

Variabel	Coefficient
C	10.68877
X1 (Economic Growth)	-
0.121202X2 (Inflation)	
	0.075168

Source: result of multiple linear regression equation, 2023.

Based on the value of the constant and the coefficients of the 2 variables, the multiple linear regression equation can be structured as follows ;
$Y = a + b1X1 + b2X2 + b2X3 + e$
$Y = 10.68 - 0.12X1 - 0.075X2 + e$

Interpretation :
1. $Y = 10.68 - 0.12X1$
This regression equation shows that every increase in economic growth by 1%, can reduce the poverty rate by 0.12%.

2. $Y = 10.68 - 0.075X1$
This regression equation shows that every increase in inflation by 1 % , can raise the poverty rate by 0.075 k%.

Discussion
Effect Of Economic Growth On Poverty Rate
The results of the panel data analysis prove that variable X1 (economic growth) has a significant and negative influence on the dependent variable Y (poverty level). In other words, the lower the economic growth rate, the higher the poverty rate. This is indicated by the value of t - count X1 (-4.382) > t-table (1.96) and sig-p (0.000) < 0.05.
The results of this study are in line with the research Harjana (2016) analysis of the influence of population, Open unemployment rate, and direct spending on economic growth (Case Study in 38 districts/ cities in East Java) where the results of research show that the number of population and direct spending has a positive and significant effect while the open unemployment rate has a negative and significant effect on economic growth in 38 districts/cities in East Java.

Darmayanti research results (2022) the effect of open unemployment rate and population growth on the poverty rate in Malang City where the results of the study prove that open unemployment rate and population growth have a significant effect on the poverty rate. The level of open unemployment and the number of people simultaneously affect poverty. The increase in partial open unemployment did not have a significant impact on the poverty rate. Meanwhile, partial population growth has a significant effect on the value of the poverty rate in Malang

Unemployment is an employment problem which is often encountered in some countries, especially in developing countries. Unemployment is defined as a group of individuals who are 15 years of age or older and are members of the labor force, who are looking for work and have not yet obtained a job. When the problem is left unchecked and continues to increase every year, it can have a negative impact on a region or country. Some of the cases generated by unemployment are crime and poverty (Berliani, 2021)

Unemployment and underemployment are indicators that are selected based on the fact that they are related to a person's income. A person who does not yet have a job and is still looking for a job does not get income, while the unemployed half relates in summary the hours worked to the income received (Darmayanti, 2022).

Unemployment rate according to (Sumarsono, 2016), is the percentage of the number of unemployed to the number of labor force. People who are looking for a job but do not currently have a job are called unemployed

Reducing unemployment and reducing poverty are equally important. In theory, if people are not unemployed, it means they have a job and income, and with the income they have from working, they are expected to be able to meet the needs of life. If the needs of life are met, then it will not be poor. So it is said that with a low unemployment rate (high employment opportunities), the poverty rate is also low. The poverty rate is always in line with the unemployment rate. Because when the unemployment rate increases, the poverty rate increases (Berliani, 2021).

The development of a region basically not only focuses on economic growth but also takes into account how poverty is generated due to the formation of the area. The capability of a region in developing its regions is different, this is due to differences in resources owned, namely labor potential, natural potential, artificial potential and hidden potential. At the time of formation, there are some areas that have abundant natural potential but little employment potential. In contrast, there are areas with inadequate natural resources but abundant human resources in terms of quantity and quality. This raises the difference in the continuity of development that triggers inequality between the level of economic growth and welfare in each region.

According to Putong (2016), economic growth is a meaningful increase in national income (with an increase in per capita income) in a given calculation period. According to the view of the classical theory of Adam Smith, explained about economic growth by looking at the laws of nature, increasing labor productivity; the process of accumulation of capital; the level of profit will decrease when the level of competition is higher; farmers, entrepreneurs, and producers are agents of growth in the economy; and the growth process is accumulative. Meanwhile, according to Keynesian theory in Irawan and Suparmoko (2012) which has the assumption that if the population increases, the real income per capita will

decrease unless real income also increases. Furthermore, when the labor force expands, output must also increase to maintain full employment opportunities. And if there is investment then real income must also increase to prevent idle capacity.

Effect Of Inflation On Poverty Rate

The results of panel data analysis prove that variable X2 (inflation) has a significant and negative influence on the dependent variable Y (poverty level). In other words, the higher the inflation rate, the higher the poverty rate. This is indicated by the value of t-count X2 (-4.984) > t-table (1.96) and sig-p (0.000) < 0.05.

The results of this study are in line with Muandar's research (2022) the effect of inflation and The Open unemployment rate on economic growth in Indonesia where the results of the study prove that inflation and the open unemployment rate have a significant effect on economic growth in Indonesia.

The results of this study are also in line with Fadilia's (2018) research on the effect of inflation on Indonesia's economic growth where the results show that inflation has a calculated value of 3.532 > ttable 2.306 with a significant level of 0.039 < 0.05, which means that inflation affects Indonesia's Economic Growth/Gross Domestic Product (GDP).

Inflation is a phenomenon in which the general price level increases continuously. An increase in the price of one or two goods alone cannot be called inflation, unless the increase extends to (or results in an increase in) a large part of the price of other goods (Boediono, 2016:161). Inflation is the rise in commodity prices in general caused by the lack of synchronization between commodity procurement programs (production, pricing, printing money, and so on) with the level of income owned by the community (Putong, 2016:147).

For a country, economic growth is one of the focuses that must be achieved every year. The number of economic growth in a country will be one of the benchmarks of success. This is also a focus for the country of Indonesia. Economic growth is a long-term problem that must be done by every country where it is expected that there will be very rapid economic growth. Every country has the same goal, which is how to accelerate economic growth. Economic growth is a process of continuous increase in per capita output in the long term. Economic growth is the cause of healthy or not the economy of a country and economic growth is an absolute requirement to promote and prosper the nation. If a country cannot increase its economic growth, it will cause new economic and social problems such as high levels of poverty. Economic growth can be measured by gross domestic product (GDP) (Fadilia, 2018).

Economic development is a multidimensional process that involves major changes in social structures, community attitudes, and national institutions, such as accelerating economic growth, reducing inequality and eradicating absolute poverty. High and sustainable economic growth is the main condition of a must for the continuity of economic development and welfare improvement. Because the population increases every year which itself needs daily consumption also increases every year, it takes additional income every year (Tambunan, 2016).

The economic development of a country can be seen from several economic indicators. One of them is the unemployment rate. Based on the unemployment rate can be seen the condition of a country, whether its economy is developing or slow

and or even regressing. In addition to the unemployment rate, it can also be seen the inequality or gap in the distribution of income received by a society of the country. Unemployment can occur as a result of the high rate of change in the labor force that is not offset by the existence of jobs that are wide enough and employment tends to be a small percentage, this is due to the low growth rate of job creation to accommodate a workforce that is ready to work

CONCLUSIONS

Based on the results of the study it can conclude as follows: a.) Economic growth has a significant negative impact on poverty. In other words, the greater the rate of economic growth, the lower the rate of poverty. This is indicated by the value of t-count X1 (-4.382) > t-table (1.96) and sig-p (0.000) < 0.05. b) Inflation has a significant negative impact on the poverty rate. In other words, the higher the inflation rate, the higher the poverty rate. This is indicated by the value of t-count X2 (-4.984) > t-table (1.96) and sig-p (0.000) < 0.05.

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