

Analysis Of Factors Affecting Poverty In The Province Of North Sumatra

Naily Ulyah Masni

¹Fakultas Ekonomi dan Bisnis
Universitas Muhammadiyah Sumatera Utara

email: nailyulyhmsn@gmail.com

Abstract

The aim of this study is to conduct a descriptive economic analysis of the development of poverty levels in Indonesia during 2012–2022, to conduct a descriptive economic analysis of poverty trends in North Sumatra Province during 2012–2022, and to estimate the factors influencing poverty in North Sumatra Province. The analytical methods used include descriptive analysis and econometric modeling. The results of this study indicate that poverty in North Sumatra Province is relatively fluctuating and changes rapidly from year to year. With a large population, the proportion of poor people in the province is also significant. Several factors influence poverty, including population growth, Human Development Index (HDI), Gross Regional Domestic Product (GRDP), and unemployment. The estimation results from the econometric model show a positive correlation and are in line with the research hypothesis, where the variables of poor population, GRDP, HDI, and unemployment collectively and significantly influence poverty growth in North Sumatra Province by 100%..

Keywords : Poverty, Population, Human Development Index.

 This work is licensed under a **Creative Commons Attribution-ShareAlike 4.0 International License**.

1. INTRODUCTION

Poverty has long been a major issue in Indonesia, and it continues to persist. It is one of the fundamental challenges faced by governments around the world. In many developing countries, a large portion of the population lives at a much lower standard compared not only to people in wealthy countries but even to the elite within their own nations (Todaro, 2011). Poverty arises from the inability of segments of society to sustain a humane standard of living, leading to poor human resource quality and low productivity (Ferian, 2021).

The first point of the Sustainable Development Goals (SDGs) is “No Poverty,” showing how seriously the United Nations views poverty eradication. Extreme poverty is defined as living below the international poverty line of USD 1.9 PPP. In Indonesia, extreme poverty affects around 4% of the population or 10.86 million people. This is lower than the national poverty rate of 10.14% or 27.54 million people (BPS, March 2021). As of 2021, the extreme poverty rate stood at 4% (TNP2K, 2022).

Several factors contribute to poverty in Indonesia, including uneven development, especially in rural areas, limited economic opportunities, and limited access to capital for microenterprises. In September 2022, the number of poor people in Indonesia was 26.36 million—up 200,000 from earlier in the year, although this was 140,000 fewer than in September 2021.

North Sumatra Province, located in the northern part of Sumatra Island with its capital in Medan, spans an area of 72,981.23 km² and is the fourth most populous province in Indonesia, after West Java, East Java, and Central Java. As of June 2022, its population was 15.3 million. The province consists of 25 regencies and 8 cities, each with different challenges in tackling poverty.

According to the National Socio-Economic Survey (Susenas) in September 2022, there were 1.262 million poor people in North Sumatra or 8.33% of the population—down from 8.49% in 2021. Urban poverty decreased more than rural poverty, but urban areas still had more poor people in absolute numbers. Despite efforts, poverty alleviation in North Sumatra remains inadequate. Human capital quality, often measured using HDI, is a key factor affecting poverty. The HDI encompasses health, education, and standard of living, and generally, a higher HDI correlates with lower poverty.

Unemployment also significantly affects poverty. Factors like economic growth, inflation, and wage levels influence employment. Higher economic growth and wages tend to reduce unemployment, while inflation tends to increase it (Sukirno, 2008). Given the multifaceted nature of poverty in North Sumatra, this study focuses on four main variables: poor population, GRDP, HDI, and unemployment, aiming to analyze their impact on poverty.

2. RESEARCH METHODS

This study aims to analyze the relationship between variables that have been determined to answer the problem formulation using a qualitative approach, namely data in the form of verbal sentences and quantitative data, namely data in the form of numbers and numbers. The data used is time series data, which is data that is chronologically arranged according to time on a particular variable. The data studied is in North Sumatra Province and the research time collected is from 2012 to 2022 published by the Central Bureau of Statistics (BPS).

The estimation method in this study is to estimate all observed variables using time series data within a period of 10 years (from 2012 to 2022). Trend analysis within this period can be analyzed using the least squares method or OLS (Ordinary Least Square) in the form of multiple linear regression models which are presented more simply and easily understood.

3. RESULTS AND DISCUSSION

RESULTS

The problem of poverty in North Sumatra Province is a serious problem that must be faced. Poverty is a complex multidimensional problem and covers various aspects. Due to its complexity, poverty alleviation requires integrated and non-overlapping programs. Poverty alleviation is the biggest global challenge and an absolute requirement for sustainable development.

Table 1: Number of Poor People in North Sumatra Province 2012 – 2022

Province	Number of Poor People in North Sumatra Province
2022	1262.09
2021	1273.07
2020	1356.72
2019	1260.50
2018	1291.99
2017	1326.57
2016	1452.55
2015	1508.14
2014	1360.60
2013	1390.80
2012	1378.45

Source: BPS North Sumatra

The number of poor people in North Sumatra Province reached 1378.45 in 2012 and further increased in the following year to 1390.80 people and fell in 2014 to 1360.60 and in 2015 jumped back to 1508.14 then in the following year the trend of the number of poor people in

North Sumatra province tended to fall every year and jumped back in 2020 to 1356.75 being the highest among the previous years, namely 2018-2019. In 2021 to 2022 the number of poor people has decreased. There are several factors that caused the decline in the number of poor people in that year, including national programs on poverty alleviation through the PKH program, and KIP as well as other social assistance that can improve the welfare of the people in North Sumatra.

The Poverty Depth Index is a measure of the average expenditure gap of each poor person against the poverty line. The higher the index value, the further the average expenditure of the population is from the poverty line. Conversely, the smaller the index value, the closer to the poverty line. The poverty depth index in North Sumatra in 2012-2022 can be seen in the table below;

Table 2. Poverty Depth Index in North Sumatra (Percent)

Province	Poverty Depth Index in North Sumatra (Percent)
2012	1.82
2013	1.72
2014	1.71
2015	1.89
2016	1.96

Source: bps.go.id

It can be seen in the data above that the index of the depth of poverty of the community in North Sumatra experienced a decrease in the percentage of the index, which means that every year the poor detect the average expenditure that exists and is determined. In 2012 the poverty depth index was at 1.82 percent and continued to experience fluctuating movements until in 2016 it reached the highest index number, but after that the figure continued to fall until in 2022 it became the lowest figure in the period 2012 - 2022, namely 1.41 percent.

Estimation of Factors Affecting Poverty in North Sumatra Province

Regression Results

Table 3. Multiple Linear Regression Results

Dependent Variable: K Method: Least Squares Date: 09/03/23 Time: 17:50 Sample: 2007 2022 Included observations: 16				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
TPT	0.680896	0.139190	4.891846	0.0004
PDRBKAP	0.296723	0.089841	3.302764	0.0063
IPM	-0.042827	0.077486	-0.552708	0.5906
C	7.461861	5.273536	1.414963	0.1825
R-squared	0.863057	Mean dependent var		10.37125
Adjusted R-squared	0.828821	S.D. dependent var		1.440879
S.E. of regression	0.596146	Akaike info criterion		2.015655
Sum squared resid	4.264678	Schwarz criterion		2.208802
Log likelihood	-12.12524	Hannan-Quinn criter.		2.025546
F-statistic	25.20922	Durbin-Watson stat		1.133194
Prob(F-statistic)	0.000018			

From the multiple linear regression results above, it can be seen that the four independent variables have jointly influenced the dependent variable with an error term below 5% with a high R-squared value of 186.3%, which means that the ability of the independent variables to explain

the dependent variable is very strong.

Parameter Significance Test (t-test)

The t statistical test or passive test basically shows how far the influence of one explanatory variable individually in explaining the variation of the dependent variable (Gujarati, 2012). The statistical t-test is carried out to show how much influence the independent variables individually explain the variation in the dependent variable. Regression of the influence of the variables TPT, GRDPKAP, HDI, with multiple linear regression tests on poverty in North Sumatra Province As in this study, it is known that the t table value is 1.99897. From the regression table above, 2 variables are included in the criteria for accepting H₀, namely the PDRBKap variable, and TPT has a significant effect on variable Y. Other variables reject H₀, namely HDI has no significant effect on variable Y.

Simultaneous Significant Test (F-test)

The statistical F-test aims to test the significance of all independent variables together on the value of the dependent variable. From the regression results on the TPT, GDP KAP, HDI model on poverty in North Sumatra province, the Ftabel value with $\alpha = 5\%$, the Ftabel is 2.76 while Fcount 0.863057. this shows that the independent variables together have a significant effect on the dependent variable. The conclusion can be drawn because the hypothesis has been set by the researcher, and the simultaneous F value in this study is still included in the criteria for accepting the hypothesis or accepting H₀.

DISCUSSION

The Gross Regional Domestic Product variable (GRDP_KAP) has a positive influence on poverty. These results are in line with the Kuznet theory which states that growth and poverty have a very strong correlation, because in the early stages of the development process the poverty rate tends to increase and when approaching the final stage of development the number of poor people gradually decreases. Economic growth is an indicator of the success of development and is a necessary condition for the reduction of the poverty rate. This means that growth should be spread across all income groups. Including the poor.

Based on the results of the study, it shows that the Human Development Index has no effect on poverty. This means that any changes that occur in the Human Development Index will not have any effect on unemployment. Based on the theory, HDI is a composite measure that includes three main dimensions: health (life expectancy), education (literacy rate and school enrollment rate), and income (GDP per capita). In the context of this study the researcher found that, these dimensions.

Based on the results of the study, it shows that unemployment has a positive influence on poverty. This means that if the community is working, of course the community or person is well-off or has a high level of welfare, but in the community there are also those who have not worked or are unemployed, this unemployment will automatically reduce the welfare of the community which will affect the poverty level. According to Sukirno, the bad effect of unemployment is that it can reduce people's income which will reduce the level of prosperity achieved by a person. If people's welfare decreases due to unemployment, this will increase their chances of being trapped in poverty because they have no income. If unemployment in a country is very bad, political and social chaos always prevails and will have a bad effect on people's welfare and prospects for economic development in the long run.

4. CONCLUSION

The development of poverty in North Sumatra Province is quite fluctuating and changes very quickly every year with the large number of people in North Sumatra Province, the existing poor population is also a large percentage there are several factors that affect poverty itself, including the increase in population, Human Development Index (HDI), GRDP and also unemployment. but the government does not necessarily turn a blind eye, so the Indonesia Smart Card program, Pre-Employment Card, Jamkesmas PNPM and many other programs are made. The results of the

Econometric model estimation of the factors that affect poverty are positive and in accordance with the research hypothesis where the variables of Unemployment, GRDP per capita and HDI together and significantly affect poverty growth in North Sumatra Province.

5. REFERENCES

- Ali, F., & Alam, S. (2012). Study Kebijakan Pemerintahan. Bandung: PT. Refika Aditama.
- Arifianto, W., & Setiyono, I. (2013). Pengaruh Pertumbuhan Ekonomi terhadap Distribusi Pendapatan di Indonesia. *Jurnal Universitas Negeri Surabaya*, 1(1), 1–16
- Arsyad, Lincolin. (2010). *Ekonomi Pembangunan*. Ed 5, Penerbit: AMP YKPN Arsyad, L. (1999). *Pengantar Perencanaan dan Pembangunan Ekonomi Daerah*. BPFE. Yogyakarta
- Ferian, D.D., Yusuf, E., & Gunanto, A. (2021). Analisis faktor penyebab kemiskinan dan bagaimana penanggulangannya: Studi empiris pada 29 kabupaten di Jawa Tengah 2014-2020. *Jurnal Ekonomi Pembangunan*, 21(2), 123-134
- Gujarati, N. D. (2012). *Dasar-Dasar Ekonometrika*. Jakarta: Salemba
- Jhingan, M. L. (2010). *Ekonomi Pembangunan dan Perencanaan* (Edisi ke-13). Jakarta: Rajawali Press
- Kuncoro, Mudrajad. (2013). *Strategi : Bagaimana Meraih Keunggulan Kompetitif*. Jakarta: Penerbit Erlangga.
- Kuncoro, S. (2014). Analisis Pengaruh Pertumbuhan Ekonomi, Tingkat Pengangguran, dan Pendidikan Terhadap Tingkat Kemiskinan di Provinsi Jawa Timur Tahun 2009-2011 (Skripsi). Universitas Muhammadiyah Surakarta, Surakarta
- Kurniawan, P. & Budhi, S. M. K. (2015). *Pengantar Ekonomi Mikro & Makro*. Yogyakarta: ANDI.
- Sukirno, S. (2002). *Makro Ekonomi Modern*. Jakarta: P.T. Rajawali Grafindo Persada
- TNP2K. (2022). TNP2K - Tim Nasional Percepatan Penanggulangan Kemiskinan Retrieved May 17, 2023, from tnp2k.go.id website: <https://tnp2k.go.id/acceleration-policies/pengurangan-kemiskinan-ekstrem-di-7-provinsi-dan-35-kabupaten-prioritas-tahun-2021>
- Todaro, M.P. & Smith, S.C. (2011). *Economic Development* (11th ed). New York: Pearson