

DIAGNOSING POVERTY ERADICATION THROUGH LITERACY: ANALYSIS FROM NATIONAL SOCIOECONOMIC SURVEY NORTH SUMATERA PROVINCE

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Abstract

This study supposed to determine the factors that influence the poverty rate in North Sumatra Province. This study used cross sectional data from the North Sumatra Province Socio-Economic Survey 2023. This survey is a survey conducted by the Central Bureau of Statistics (BPS), which aims to collect data on the socio-economic conditions of the community related to the fields of education, health/nutrition, housing, socio-cultural activities, consumption/expenditure and household income, travel, and opinions on household welfare. The Socio-Economic Survey of North Sumatra Province 2023 survey data collected by BPS in March 2023 covered 33 regencies/cities in North Sumatra Province with 5000 sample households spread across 325 sub-districts and representing the entire population. The results of this study are literacy has a positive and significant effect on poverty in North Sumatra Province, financial literacy has a positive and significant effect on poverty in North Sumatra Province and age has a positive and significant effect on poverty in North Sumatra Province.

Keywords: Poverty, Literacy, Financial Literacy, Age

1. Introduction

With a total population of around 260 million, Indonesia is the fourth most populous country in the world. One of the problems faced by countries with a population above 200 million is poverty. Poverty is a multidimensional problem because it is interconnected with the inability to access and participate economically, politically, socially and culturally. Some existing policies and programs are considered ineffective in reducing the number of people living below the poverty line. According to (BPS, 2023) In general, in the period September 2012-March 2023, the poverty rate in Indonesia decreased, both in terms of number and percentage, except in September 2013, March 2015, March 2020, September 2020, and September 2022. The increase in the number and percentage of poor people in September 2013, March 2015, and September 2022 occurred after an increase in the prices of basic goods as a result of the increase in fuel prices. Meanwhile, the increase in the number and percentage of poor people in March 2020 and September 2020 occurred when there were restrictions on population mobility when the Covid-19 pandemic hit Indonesia. The development of the poverty rate from September 2012 to March 2023 is presented in Figure 1.

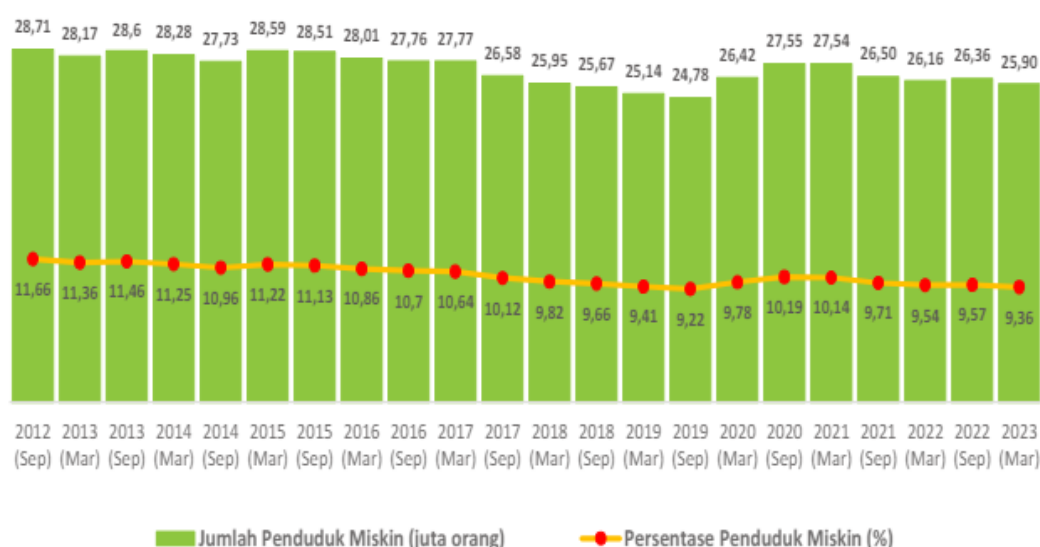


Figure 1. The development of the poverty rate from September 2012 to March 2023

The number of poor people in Indonesia in March 2023 reached 25.90 million people. Compared to September 2022, the number of poor people decreased by 0.46 million people. Meanwhile, when compared to March 2022, the number of poor people decreased by 0.26 million people. The percentage of poor people in March 2023 was recorded at 9.36 percent, a decrease of 0.21 percentage points against September 2022 and a decrease of 0.18 percentage points against March 2022. Based on the area of residence, in the September 2022-March 2023 period, the number of poor people in urban areas decreased by 0.24 million people, while in rural areas it decreased by 0.22 million people. The percentage of poverty in urban areas fell from 7.53 percent to 7.29 percent. Meanwhile, in rural areas it fell from 12.36 percent to 12.22 percent.

The issue of poverty is not just about the number and percentage of poor people. Another dimension that needs to be considered is the depth and severity of poverty. The poverty depth index is a measure of the average expenditure gap of each poor person against the poverty line. The poverty severity index provides an overview of the distribution of expenditure among the poor. Alleviating poverty is not only done through intervention programs in the form of providing stimulant assistance or direct training. Poverty alleviation can also be done through equalizing education for the community, providing reading materials in libraries, both in public libraries, districts/cities, and village or mobile libraries. However, the reading material provided must be tailored to the needs of the surrounding community.

Many countries, both developing and developed, continue to strive to achieve universal primary education. However, at higher levels of education, if not accompanied by improvements in the quality of education, it cannot function effectively as a tool to stem the transmission of poverty from one generation to the next (Santos, 2011). According to the National Research Council National Research Council, one of the skills that need to be improved in the 21st century is cognitive skills (problem solving, critical thinking, and systematic thinking). The educational process should not only revolve around subject matter, but should also foster thinking skills and develop literacy. Indonesia's population amounted to 275.36 million people in 2022 (June). Of this number, it turns out that only 6.41% received education until college.

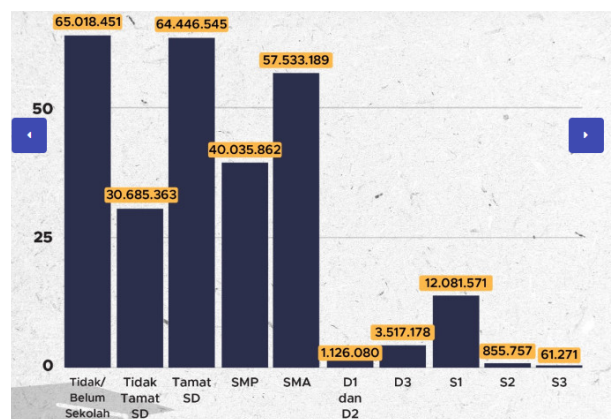


Figure 2. Directorate General of Dukcapil, Indonesia's population

According to data from the Directorate General of Dukcapil, Indonesia's population will reach 275.36 million by 2022 (June). Of this number, it turns out that only 6.41% have received education until college. The details are, D1 and D2 0.41%, D3 a total of 1.28%, S1 a total of 4.39%, S2 a total of 0.31%, and only 0.02% of the population who have received S3 level education. Poverty alleviation through education aims to reduce unemployment, foster an independent young generation, and make a positive contribution to society (Wau, 2022). In order to reduce poverty, it is necessary to improve the quality of human resources which can be done through fixed investment in education (Comfort et al., 2019). Another factor associated with poverty is age. The relationship between age and poverty cannot be separated from the retirement phase. According to recent calculations, if everyone had a high retirement age as the most educated quintile of the population, the costs of declining production and costs for the health system and income transfer payments could be reduced by an amount equivalent to 5.8% of the Gross National Product (GNP) of the European Union (EU) (Diderichsen et al., 2012). According to (Silas I. Abu, 2019) states that age has a positive relationship with the probability of being an older person in poverty, the probability of being an elderly person in poverty is inversely correlated negatively correlated with educational attainment. The focus of this research is whether the development of cognitive abilities based on cognitive literacy can reduce poverty or not?

2. Theoretical Background

2.1 Poverty

Among the most fundamental and pragmatic concepts of poverty are the definitions of absolute poverty and relative poverty (Benoit Decerf, 2017), (James E. Foster, 2018). Absolute poverty refers to the condition of being below a certain level when measured against a set of predefined criteria, referred to as a poverty measure. The level below which poverty occurs is referred to as the poverty line (Simler & Arndt, 2007) points out some of the challenges and complexities associated with measuring absolute poverty and hence setting absolute poverty lines, and therefore presents a method for estimating the variance of poverty measures from survey data. Poverty measures can be single or multi-criteria with commensurate and/or non-commensurate units of measurement.

Some recent examples of poverty measurement include (DORN et al., 2023) which considers income and leisure in a household context in Mexico (Aristondo & Onaindia, 2023) considers energy poverty in a Spanish context and uses incidence, intensity and inequality as measures. (Beccaria et al., 2022) assess various measures of poverty related to food shortages, health services, housing services, household appliances, and social and

educational opportunities in a Latin American context. As can be seen, measures are often financial in nature, but can include a range of criteria including ownership of goods or access to services. Relative poverty refers to the condition where an entity is below the average (mean or median) percentage of a set of entities comparable to the poverty criteria. The appropriateness of both concepts of poverty, absolute or relative, in a given situation is a topic of significant debate in the literature (James E. Foster, 2018).

2.2 Literasi

Literacy is defined as literacy, the ability to read and write, literacy or proficiency in reading and writing. The definition of literacy based on the context of its use is an integration of writing, reading and critical thinking skills (Firmansyah et al., 2023). According to the Oxford dictionary, literacy means "Literacy is the ability to read and write". Literacy is generally defined as the ability to read and write. More broadly, literacy is an ability that exists in a person in reading or writing whatever he sees, hears or feels.

According to Marsudi (2016) the purpose of information literacy is to prepare individuals to be able to carry out lifelong learning, improve critical thinking skills, improve individual abilities to evaluate information in the midst of an information explosion and improve individual abilities to evaluate information in the midst of an information explosion more efficiently and effectively. Information literacy plays an active role and can be used as learning to express ideas, build arguments, learn new things, and identify the truth of information and reject false opinion information. Cognitive is more related to a child's ability to use their brain as a whole. The abilities included in the cognitive aspect are numerous and very broad in scope.

2.3 Cognitive Ability

Cognitive abilities are brain-based skills required to perform any task from simple to the most complex. The cognitive structure that exists in a child is very fast, such as: they will more quickly capture and remember something that is real to them (Mulyono & Abdurrahman, 2012) Cognitive is always closely related to the level of intelligence possessed by a person. Examples of cognitive can be shown by an individual when learning, solving problems to build an idea (Guo et al., 2024).

Cognitive function involves various complex and interrelated aspects. Some of these aspects include:

- 1) Perception
The process of perception involves the reception, recognition and interpretation of sensory information received through the five senses. This includes the ability to recognize shapes, colors, sounds, smells, and tastes.
- 2) Attention
Attention is the ability to focus the mind and enhance the processing of relevant information while ignoring irrelevant ones.
- 3) Memory
The aspect of memory makes it possible to store, recall, and retrieve information. There are several types of memory, namely short-term and long-term memory.
- 4) Language
Then there is language which is a complex system. This aspect of cognition functions to communicate thoughts and ideas. Language involves understanding and producing words, grammar, as well as the ability to understand meaning and produce structured sentences.

- 5) Problem solving
 Problem solving involves the ability to identify problems, develop strategies to solve them, and implement effective steps to achieve the desired solution.

3. Methods

This study used cross sectional data from the North Sumatra Province Socio-Economic Survey 2023. This survey is a survey conducted by the Central Bureau of Statistics (BPS), which aims to collect data on the socio-economic conditions of the community related to the fields of education, health/nutrition, housing, socio-cultural activities, consumption/expenditure and household income, travel, and opinions on household welfare. The Socio-Economic Survey of North Sumatra Province 2023 survey data collected by BPS in March 2023 covered 33 regencies/cities in North Sumatra Province with 5000 sample households spread across 325 sub-districts and representing the entire population (Sugiyono, 2017).

For this study, the sample was restricted to individuals above 5 years of age, and of these, 1,018,844 individuals were used as a usable sample for this study. Next, a maximum likelihood method using multiple regression models was estimated based on this data with the probability of an individual being poor as the dependent variable and a set of literacy-based cognitive skills and socio-economic factors as variables.

4. Result And Discussion

4.1 Result

Table 1. Overview of the Poor in North Sumatra

Distict / City	Number of Poor People by City District (People)		
	2021	2022	2023
Sumatera Utara	1343.86	1268.19	1239.71
Nias	24.33	23.23	21.99
Mandailing Natal	43.24	40.98	41.04
Tapanuli Selatan	25.01	23.05	20.09
Tapanuli Tengah	49.95	47.07	47.09
Tapanuli Utara	29.72	27.47	26.39
Toba	16.61	16.48	14.94
Labuhan Batu	45.03	43.27	42.58
Asahan	69.29	64.49	61.69
Simalungun	76.99	72.47	69.21
Dairi	23.72	22.53	21.42
Karo	38.01	35.93	35.65
Deli Serdang	92.52	85.28	82.75
Langkat	106.59	100.45	98.16
Nias Selatan	55.16	54.16	54.29
Humbang Hasundutan	18.71	17.33	17.14
Pakpak Bharat	4.79	4.52	4.01
Samosir	16.08	14.97	14.86
Serdang Bedagai	51.16	48.22	45.88
Batu Bara	52.59	49.39	49.18
Padang Lawas Utara	28.37	26.09	26.17
Padang Lawas	25.78	24.45	24.51

Labuhanbatu Selatan	30.36	29.38	29.83
Labuanbatu Utara	37.13	33.91	34.13
Nias Utara	35.84	32.87	30.78
Nias Barat	21.75	20.42	18.86
Sibolga	10.80	10.05	10.02
Tanjungbalai	24.10	22.65	22.45
Pematangsiantar	22.06	20.53	18.96
Tebing Tinggi	17.37	16.34	16.36
Medan	193.03	187.74	187.28
Binjai	16.46	14.61	13.85
Padangsidempuan	17.28	16.03	16.15
Gunungsitoli	24.02	21.85	22.03

North Sumatra's poverty rate decreased by 0.18 points, from 8.33 percent in September 2022 to 8.15 percent in March 2023. This poverty rate is equivalent to 1.24 million people in March 2023, or a reduction of around 22.4 thousand people in the last semester. The percentage of poor people in March 2023 in urban areas was 8.23 percent, and in rural areas it was 8.03 percent. In urban areas it decreased by 0.40 points, while in rural areas it increased by 0.07 points when compared to September 2022.

The Poverty Line in March 2023 was recorded at Rp.602,999,-/capita/month with a composition of the Food Poverty Line of Rp.458,706,- (76.07%) and the Non-Food Poverty Line of Rp.144,293,- or around 23.93 percent. In the September 2022-March 2023 period, both the Poverty Depth Index (P1) and the Poverty Severity Index (P2) experienced a decline. P1 fell from 1.411 in September 2022 to 1.261 in March 2023, while P2 fell from 0.339 to 0.324. The decline in P1 indicates that there is a trend towards an increase in the average consumption expenditure of the poor that is able to follow the increase in the poverty line, or in other words, the gap between the expenditure of the poor and the poverty line is decreasing. Furthermore, P2 - which provides an overview of the distribution of consumption expenditure among the poor - the decline in this index indicates a reduction in the inequality of consumption expenditure among the poor, or in other words, the distribution of consumption expenditure is getting better or more equitable.

Tabel 2. Validity Test

	Writing and reading skill (X1)	Financial Literacy (X2)	Age (X3)	Poverty (Y)
X1.1	0,765			
X1.2	0,880			
X1.3	0,870			
X1.4	0,874			
X1.5	0,855			
X2.1		0,943		
X2.2		0,919		
X2.3		0,949		
X2.4		0,968		
X2.5		0,953		
X3.1			0,965	
X3.2			0,957	
X3.3			0,928	

X3.4			0,953
X3.5			0,953
Y1			0,801
Y2			0,823
Y3			0,883
Y4			0,869
Y5			0,858

Based on the results obtained, it can be stated that the indicators used in this study have good discriminant validity in compiling their respective variables.

Table 3. Composite Reliability

Variabel	Composite Reliability
Writing and reading skill (X1)	0.940
Financial literacy (X2)	0.969
Age (X3)	0.982
Poverty (Z)	0.964

Based on the table above, it is known that the composite reliability value of all research variables is > 0.6 . These results indicate that each variable has met the composite reliability so that it can be concluded that all variables have a high level of reliability.

Table 4. R Squar

Variable	R Square	R Square Adjusted
Poverty	0,724	0,718

The conclusion from testing the R-Square value of Poverty in North Sumatra Province is that the Adjusted R-Square for the path model using intervening variables is 0.724. This means that the ability of the literacy, financial literacy and age variables to explain poverty is 72.4%. Thus, the model is classified as high.

Table 5. F Square

	Kemiskinan
Writing and reading skill (X1)	0,465
Financial literacy (X2)	0,844
Age (X3)	0,117

- 1) The literacy variable on poverty has a value of $F2 = 0.465$. Then there is a large effect of exogenous variables on endogenous variables.
- 2) The financial literacy variable on poverty has a value of $F2 = 0.844$, so there is a large effect of the exogenous variable on the endogenous variable.
- 3) The age variable on poverty has a value of $F2 = 0.117$, so there is a small effect of the exogenous variable on the endogenous variable.

Table 6. Direct Effect / Path Coefficient

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ($ O/STDEV $)	P values
X1 - Y	0,288	0,285	0,100	2,879	0,004
X2 - Y	0,668	0,669	0,076	8,814	0,000
X3 - Y	0,326	0,322	0,118	2,765	0,006

- 1) The literacy variable on poverty in North Sumatra Province has a path coefficient of 0.288 and a P-value of 0.004 (< 0.05), meaning it has a positive and significant effect.

- 2) The financial literacy variable on poverty in North Sumatra Province has a path coefficient value of 0.668 and a P-Value of 0.000 (<0.05), meaning it has a positive and significant effect.
- 3) The age variable on poverty in North Sumatra Province has a path coefficient value of 0.326 and a P-Value of 0.006 (<0.05), meaning it has a positive and significant effect.

4.2 Discussion

1) The Effect of Literacy on Poverty in North Sumatra Province

Literacy itself is not just about reading and writing but rather the ability of an individual to process information and knowledge for life skills. With literacy, existing poverty problems can be overcome even though it takes a long time and cannot be instant. Literacy is proven to be able to overcome poverty such as:

- a. Improving Health Levels
- b. Impacting the Economy and the World of Work
- c. Can Take Part in Politics
- d. Increase Self-Confidence to Keep Growing

Poverty alleviation is also influenced by a good level of public health. An increase in the level of health will increase labor productivity both directly and indirectly. Low levels of child health will have an impact on children's willingness to attend school, the level of school skipping and lack of attention when receiving lessons so that it affects the possibility of children completing school on time and getting or having managerial jobs compared to healthy children. The results of research (Ellah, 2016) state that indicators to see the extent of the development of the health level of the Regency / City in West Sumatra Province can be measured by the Human Development Index, one of whose components is the literacy of the community.

The results of research (Surbakti et al., 2023) suggest that there is a significant influence between education and poverty. In other words, a person with a high level of education will have a smaller chance of entering poverty. The level of education will increase the opportunity to get a job for households. High employment opportunities will be followed by high income as well.

2) The effect of financial literacy on poverty in North Sumatra Province

Financial literacy is an important foundation for individual welfare, of course, it also affects the country's economic development. Based on the results of the National Survey of Financial Literacy and Inclusion (SNLIK) in 2022 organized by the Financial Services Authority (OJK), the financial literacy index of the Indonesian people was 49.68%. This percentage increase compared to 2019 which amounted to 38.03%. The increase is an indication of a higher level of financial inclusion. High financial inclusiveness in a country can create economic efficiency and can support the stability of the national financial system.

The important mission of the financial literacy program is to educate the Indonesian people in the financial sector so that they can manage their finances intelligently, so that the low knowledge of the financial industry can be overcome and people are not easily fooled by investment products that offer high returns in the short term without considering the risks. The need for public understanding of the products and services offered by financial services institutions, the national financial literacy strategy program launched three main pillars. First, it promotes education programs and national financial literacy

campaigns. Second, it takes the form of strengthening financial literacy infrastructure. Third, it talks about the development of affordable financial products and services. The implementation of these three pillars is expected to realize Indonesian people who have a high level of financial literacy so that people can choose and utilize financial services products to improve welfare (OJK, 2013). Research results (Yushita, 2017) Knowledge and understanding of personal finance is needed by individuals in order to make the right decisions in finance, so it is absolutely necessary that everyone can optimally use the right financial instruments and products. Lack of knowledge about financial literacy is a serious problem and a major challenge for people in Indonesia which results in poverty.

3) The effect of age on poverty in North Sumatra Province

Poverty alleviation remains one of the most pressing problems in Indonesia, especially North Sumatra. (Priseptian & Primandhana, 2022) states that poverty is caused by several factors, including inadequate minimum wages, poor living standards, and increasing unemployment every year without additional employment opportunities and age. Age that is no longer young results in a person no longer being able to work so that he has no income and results in an increase in poverty, because a productive age will be able to do labor, where work is one of the most important aspects of normal adult human life, adults will feel difficult and restless if they do not have a clear job, let alone become unemployed.

The results of the study (Firmansyah et al., 2023) The age and age squared variables are significant, and an increase in age will increase the probability of someone being poor until they reach the age of 13, after which an increase in age will decrease the probability of being poor. Young workers and child laborers tend to work in vulnerable sectors due to lack of skills, lack of experience, and tend to have low education levels. Thus, conditions in vulnerable sectors contribute to the worst position of young workers. The probability of being poor decreases when a person reaches productive age, one of the reasons is that experience and promotion opportunities increase with age, but after reaching a certain age level will start to decline (Aisa et al., 2019).

5. Conclusion

Based on the explanation above, it can be concluded that:

- 1) Literacy has a positive and significant effect on poverty in North Sumatra Province, financial literacy has a positive and significant effect on poverty in North Sumatra Province and age has a positive and significant effect on poverty in North Sumatra Province.
- 2) Suggestions to the North Sumatra provincial government are expected to further increase Economic Growth by increasing superior sectors and subsectors and for sectors that are less dominant to be further improved so that there is an economic turnover both primary, secondary and tertiary. And in the end it will be able to create a productive and innovating population and human resources which in turn will be able to increase employment, reduce the level of unemployment and improve the welfare of the community. In addition, it is hoped that the government will be able to provide policies to reduce population growth which continues to increase, improve the quality of human resources in all areas both urban and rural and be able to improve skills and operate technology. create jobs so that unemployment problems can be overcome, creating jobs so that the unemployment problem can be overcome and being able to increase Economic Growth and its distribution to the community so as

to create a sustainable economy and be able to provide poverty alleviation policies and for existing programs that need to be improved and equitable distribution in all regions both remote and urban.

References

- Aristondo, O., & Onaindia, E. (2023). Decomposing Energy Poverty in Three Components. *Energy*, 263. <https://doi.org/10.1016/j.energy.2022.125572>
- Beccaria, L., Fernandez, Ana L., & Najera, H. (2022). The Use of The Consensual Approach for The Improvement of Existing Multidimensional Poverty Data in Latin America: An Illustration Based on Data from The City of Buenos Aires. *Journal Of Poverty and Social Justice*, 31(27). <https://doi.org/10.1332/175982721X16644668262304>
- Benoit Decerf. (2017). Why Not Consider That Being Absolutely Poor Is Worse Than Being Only Relatively Poor? *Journal Of Public Economics*, 152, 79–92. <https://doi.org/10.1016/j.jpubeco.2017.06.00>
- BPS. (2023). Profil Kemiskinan Di Indonesia Maret 2023. <https://webapi.bps.go.id/download.php?f=Hdqyk8euoi5jcedkpmnnhh/O+Ie3843t3spwdiqyljx8vr8wswsm16vc0dxflxvbgkhis+Jy4bajVPdcuHhX7Fm+Jfmwv/3a7lcrqwg6/Etsplbjg0tk0evtvbp2cksuaplbwsvtwap17+Rjxdzkw5atmy4ssui5lj+Xwkj3blqz/Mv2w71lnr/Aqmakdjziclfkub+Bxcoavtduzs4nd>
- Comfort, O. B., Okodua, H., Oladosun, M., & Asaleye, A. J. (2019). Human Capital and Poverty Reduction in OPEC Member-Countries. *Heliyon*, 5(8). <https://doi.org/10.1016/j.heliyon.2019.E02279>
- Diderichsen, F., Andersen, R. I., & Manuel, C. (2012). Health Inequality - Determinants and Policies. *Scandinavian Journal of Public Health*, 40(12), 105. <https://doi.org/10.1177/1403494812457734>
- Dorn, F., Radice, R., Marra, G., & Kneib, T. (2023). A Bivariate Relative Poverty Line for Leisure Time and Income Poverty: Detecting Intersectional Differences Using Distributional Copulas. *Review Of Income and Wealth*. <https://doi.org/10.1111/Roiw.12635>
- Ellah, N. (2016). Analisis Pengaruh Faktor-Faktor Yang Berpengaruh Terhadap Kemiskinan Di Jawa Timur. *Fakultas Ekonomi Dan Bisnis Universitas Brawijaya*, 1–9.
- Firmansyah, C. A., Suherman, M. F. A., Akmal, P. N., Anisa, A. F., & Sihalohe, E. D. (2023). Diagnosing Poverty Eradication Through Literacy: Analysis from Indonesia National Socioeconomic Survey. *Jurnal Ekonomi Pembangunan: Kajian Masalah Ekonomi dan Pembangunan*, 24(2), 190–201. <https://doi.org/10.23917/Jep.V24i2.20239>
- Guo, X.-H., Wang, M.-Y., & Chou, L.-C. (2024). Adolescents' Height and Cognitive Ability in China. *Heliyon*, 10 (7). <https://doi.org/10.1016/j.heliyon.2024.E28742>
- James E. Foster. (2018). Absolute Versus Relative Poverty. *The American Economic Review*, 2(2000). <https://www.jstor.org/stable/116944>
- Mulyono, & Abdurrahman. (2012). Anak Berkesulitan Belajar. *Rineka Cipta*.
- Priseptian, L., & Primandhana, W. P. (2022). Analisis Faktor-Faktor Yang Mempengaruhi Kemiskinan. *Forum Ekonomi*, 24(1), 45–53. <https://doi.org/10.30872/Jfor.V24i1.10362>

- Santos, M. E. (2011). Human Capital and The Quality of Education in A Poverty Trap Model. *Oxford Development Studies*, 39(1). <https://doi.org/10.1080/13600818.2010.551003>
- Simler, K. R., & Arndt, C. (2007). Poverty Comparisons with Absolute Poverty Lines Estimated from Survey Data. *The Review of Income and Health*, 53(2). <https://doi.org/10.1111/J.1475-4991.2007.00228>
- Sugiyono. (2017). *Metode Penelitian Bisnis (Pendekatan Kuantitatif, Kualitatif, Kombinasi Dan R&D)*. CV. Alfabeta.
- Surbakti, S. P. P., Muchtar, M., & Sihombing, P. R. (2023). Analisis Pengaruh Tingkat Pendidikan Terhadap Kemiskinan di Indonesia Periode 2015-2021. *Ecoplan*, 6(1), 37–45. <https://doi.org/10.20527/Ecoplan.V6i1.631>
- Wau, T. (2022). Economic Growth, Human Capital, Public Investment, And Poverty in Underdeveloped Regions in Indonesia. *Jurnal Ekonomi Dan Studi Pembangunan*, 23(2). <https://journal.umy.ac.id/index.php/esp/article/view/15307/7854>
- Yushita, A. N. (2017). Jurnal Nominal / Volume Vi Nomor 1 / Tahun 2017 Pentingnya Literasi Keuangan Bagi Pengelolaan Keuangan Pribadi Amanita Novi Yushita. *Nominal*, VI (1), 11–26.