

THE IMPACT OF GOVERNMENT SPENDING, FINANCIAL DEEPENING, AND UNEMPLOYMENT ON POVERTY REDUCTION IN INDONESIA

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ABSTRACT

Poverty is a social problem faced by various countries including Indonesia, various policies and strategies have been carried out to overcome poverty to make people more prosperous. This study aims to analyze the impact of government spending, financial deepening and unemployment on poverty reduction in Indonesia. The research was conducted in 33 selected provinces in Indonesia from 2010-2020 with secondary data in the form of panel data regression models. The method applied is the fixed effect model. The results showed that government spending has a negative and significant impact on poverty, financial deepening has a negative and significant impact on poverty and open unemployment has a positive and significant impact on poverty in Indonesia.

Keywords: Government Spending, Financial Deepening, Unemployment, and Poverty

INTRODUCTION

Poverty, when examined through an economic lens, is often defined as the incapacity of a population to fulfill essential food and non-food requirements, gauged by their financial outlays. This financial aspect is particularly crucial in assessing poverty, where an individual is classified as poor if their monthly per capita expenditure falls below the designated poverty line, as outlined by the Central Statistics Agency in 2021.

According to the (2020) publication by the Indonesian Central Bureau of Statistics (BPS), the statistics shed light on the prevailing poverty scenario in the country. In the year 2020, the recorded percentage of people living below the poverty line was 10.19%. This figure unveils a stark reality, indicating that, out of the 34 provinces in Indonesia, only 19 managed to maintain poverty rates below the national average.

In (1952), Ragnar Nurkse introduced a seminal economic theory that has since become known as the vicious circle of poverty. According to Nurkse's theory, the existence of market imperfections serves as a catalyst for a downward spiral in economic development. These imperfections contribute to low productivity levels within a given economy. As productivity declines, individuals experience a corresponding reduction in their income, creating a domino effect that ripples through various economic facets.

Government spending can be a solution to reduce poverty because, if done productively, it can stimulate economic activities in a region. One of the government's roles is government spending, which serves as

an economic activity regulator. According to Keynes, government spending can increase output and reduce the reaction rate because government spending can create jobs and boost people's income, thus improving the welfare of society (Rahmawati, 2022). Government spending is the most effective government intervention in the economy, as it can increase production capacity, build infrastructure that employs labor, distribute income, and enhance the population's well-being.

While government spending is often anticipated to yield positive economic outcomes, the specific domains of education and health can exhibit contrasting effects on poverty, as observed in East Lombok. According to Lantu's research in (2017), government spending in these sectors was associated with a notable and adverse impact on poverty within the region. Similarly, Yusri's findings in (2022) extended this perspective to the national level, suggesting that government expenditures on education and health significantly influence the poverty landscape in Indonesia.

Interestingly, the intricacies of the relationship between government spending and poverty in East Lombok become apparent when considering direct and indirect spending. Lantu et al. (2017) discovered that while overall government spending had a discernible effect, both direct and indirect expenditures did not register a significant impact on poverty. This nuanced insight underscores the importance of distinguishing between different spending categories to understand the varying implications for poverty alleviation.

Good financial deepening in a region is indicated by a high credit-to-gross Regional Domestic Product (GRDP) ratio. This implies that the region manages its finances well, and the higher the financial deepening ratio, the lower the poverty rate.

A region's adept financial management is often signaled by a high credit-to-Gross Regional Domestic Product (GRDP) ratio, indicative of sound financial deepening. This ratio serves as a key metric, suggesting effective financial utilization within the region. Notably, a positive correlation emerges between a higher financial deepening ratio and a lower poverty rate, reflecting the potential socio-economic benefits of robust financial infrastructure.

This perspective aligns with the findings of Rewilak's study in (2017), which demonstrated that, over the long term, enhanced financial deepening contributes to a reduction in poverty. The study underscores the notion that a well-developed financial system can foster economic growth and alleviate poverty by facilitating increased access to credit and financial resources.

However, a divergent view is presented by Harisuddin Hartono in (2019), who contends that despite the deepening of financial markets, the impact on poverty may not be statistically significant. This dissenting opinion prompts a nuanced exploration of the complex relationship between financial deepening and

poverty reduction, emphasizing the need for comprehensive analyses that consider various contextual factors.

While Rewilak's findings support the positive impact of financial deepening on poverty reduction, the contrary perspective offered by Harisuddin Hartono underscores the importance of recognizing the contextual nuances in different regions. As researchers navigate these intricacies, a holistic understanding of the relationship between financial deepening and poverty emerges, encouraging further exploration and refinement of economic policies to address poverty effectively.

The welfare of a region's population can be reflected in the unemployment rate. Notably, open unemployment, as highlighted by Futunanembun et al. in 2023 and echoed by Hasan et al. in (2020), exhibits a significant positive correlation with poverty. Their studies emphasize that higher open unemployment rates are associated with increased poverty levels, underscoring the vulnerability of individuals without gainful employment.

Contrary to these findings, Damayani and Perdini's study in (2022) offers a different perspective, asserting that open unemployment does not wield a statistically significant impact on poverty in Indonesian provinces. This dissenting view prompts a closer examination of the nuanced relationship between unemployment and poverty, suggesting that contextual factors and regional variations may play a role in shaping these outcomes.

The discrepancy in findings underscores the complexity of the interplay between open unemployment and poverty. While Futunanembun et al. and Hasan et al. point to a clear positive association, Damayani and Perdini's research suggests that this link may not universally hold true across all Indonesian provinces. Consequently, the need for tailored policies that consider regional specifics becomes apparent, as a one-size-fits-all approach may not adequately address the diverse economic landscapes and contributing factors at play in different areas.

The question of whether government spending, financial deepening, and unemployment can be beneficial in poverty alleviation in Indonesia remains open, emphasizing the importance of further research to bridge existing gaps. Given the heterogeneity of Indonesian provinces, a more detailed exploration, perhaps with new objects or variables, can contribute to a more nuanced understanding of the dynamics at play.

Based on the explanations above, it is known that there are varying responses among these variables in the relevant field, indicating that government spending, financial deepening, and unemployment can reduce the poverty rate. Therefore, further study and updates are needed to fill the research gap with new

objects in the provinces of Indonesia. Can government spending, financial deepening, and unemployment be beneficial in poverty alleviation in Indonesia?

METHOD, DATA, AND ANALYSIS

Data Collection

This study adopts an explanatory research design, seeking to elucidate the intricate and interactive relationships among the variables under examination, shedding light on the extent of their mutual influence. The data collection methodology relies on documentary research, drawing information from the Bank of Indonesia (BI) and the Central Statistics Agency (BPS) websites. In this pursuit, secondary data is utilized, providing a comprehensive foundation for the analysis.

The dataset encompasses information spanning from 2010 to 2020 and covers 33 selected provinces in Indonesia. The chosen analytical approach involves panel data regression, facilitated by the utilization of E-views software version 12. This method allows for a robust exploration of the interplay between the selected variables over the specified timeframe and geographic scope.

By employing this research design and methodology, the study aims to contribute valuable insights into the dynamics and interdependencies of the variables in focus. The reliance on secondary data from reputable sources enhances the credibility and reliability of the findings, while the panel data regression analysis provides a sophisticated tool for unraveling the complexities inherent in the relationships under scrutiny. Ultimately, the study endeavors to enhance our understanding of the factors influencing the studied variables and their implications for the selected provinces in Indonesia.

Model Specification

The research method used is panel data regression. Panel data combines time series and cross-sectional data. The panel data regression equation used in this study is as follows:

$$\text{LnMisit} = \alpha + \beta_1 \text{LnPPEit} + \beta_2 \text{LnPKuit} + \beta_3 \text{LnTPTit} + \epsilon_{it}$$

Where: Misit is the percentage of the poor population (%); province i and year t ; α is the intercept coefficient; PPEit is the actual total government spending (trillion); PKuit is financial deepening (the amount of investment and working capital credit to GRDP at constant prices) (%); TPTit is the open unemployment rate (%); and ϵ_{it} is the error.

The panel data regression model adopted in this study incorporates three distinct methods: common, fixed, and random effects, as elucidated by Baltagi in 2021. To ascertain the most suitable model among these three, a series of tests are employed, including the Chow, Hausman, and Lagrange Multiplier tests, as outlined by Greene in 2012. These tests serve as critical tools in discerning the optimal approach for

modeling the relationships between variables, considering both the commonalities and variations across entities and time periods.

Once the best-fitting model, whether Common Effects Model (CEM), Fixed Effects Model (FEM), or Random Effects Model (REM), is identified, the analysis proceeds to validate the model assumptions through classical assumption tests. These tests help ensure the robustness and reliability of the chosen model by examining key assumptions, such as normality, homoscedasticity, and linearity.

Subsequently, hypothesis testing becomes the focal point of the analysis, employing both F and t tests at a 5% significance level. These tests serve to evaluate the statistical significance of the estimated coefficients, shedding light on the relationships between the variables under investigation. The rigorous application of these testing procedures aims to fortify the validity and generalizability of the study's findings, providing a sound basis for drawing meaningful conclusions from the panel data regression analysis.

Analysis

The highest poverty rate in Indonesia from 2012 to 2020 was in Papua Province, exceeding 25%. This means Papua has yet to be prosperous in alleviating poverty despite its rich natural resources (Futunanembun et al., 2023). The province with the lowest poverty rate was the Special Capital Region of Jakarta, with a rate of less than 5% from 2012 to 2020, possibly because Jakarta is the economic and administrative center of Indonesia.

If the financial deepening ratio is higher, it indicates that a region has more profound financial development, which can boost income and employment opportunities, increase savings, and use savings for business investments. This leads to increased production. Increasing income helps to reduce poverty in that area. Access to the financial sector can show the benefits of financial development services that can be enjoyed by all, thereby reducing poverty.

Financial deepening can have a direct impact on poverty alleviation by facilitating transactions and allowing people experiencing poverty to benefit from financial services, thereby increasing their income. Additionally, financial deepening can indirectly reduce poverty by stimulating economic growth. As demonstrated in a study in China, with the growth of financial deepening, underdeveloped areas have greater access to credit (Ran et al., 2020).

Unemployment has a negative impact. If unemployment occurs in a country, it can lead to political and social turmoil and negatively affect the population's welfare and long-term economic development prospects (Praja et al., 2023). Unemployment is a crucial indicator of poverty; an increase in unemployment in a country leads to an increase in poverty, as the active population does not have

sufficient income to meet their daily basic needs (Suaidah et al., 2023). Unemployment in Indonesia is still an unresolved problem, although it strongly correlates with poverty. A decrease in the unemployment rate also leads to a decrease in the poverty rate, indicating that an increase in the unemployment rate will lead to a decrease in the population's productivity (Futunanembun et al., 2023). Therefore, there is a positive relationship between the unemployment rate and the poverty rate (Utami et al., 2023).

RESULT AND DISCUSSION

Result

This study employs panel data, which combines time series and cross-sectional data. Therefore, stationary tests are conducted.

Data is considered stationary if the p-value is less than 0.05 and non-stationary if the p-value is more significant than 0.05 (Widarjono, 2013). The Chow test selects the best model where the p-value is less than α ($0.000 < 0.05$). The results show that the fixed effect model is more suitable than the typical one. The Hausman and Chow tests indicate that the fixed effect model is the best.

The fixed effect model uses the Ordinary Least Squares (OLS) approach, so classical assumption tests are needed. However, not all classical assumption tests are conducted on panel data regression; only multicollinearity and heteroskedasticity tests are performed. The correlation results among the variables show a correlation value greater than 0.8, indicating that each independent variable does not have multicollinearity issues. The Glejser test shows that all independent variables have p-values greater than 0.05, indicating no heteroskedasticity issues.

Dependent variable: ln Mis (poverty)

Table 1. Estimation Results Using Fixed Effect Model

Variable	Description	Coefficient	t-test	Prob.
Constant	Intercept	12.916	34.136	0.000
lnPPe	Government Spending	-0.088	-5.025	0.000
lnPKu	Financial Deepening	-0.065	-5.902	0.000
lnTPT	Open Unemployment	0.137	2.581	0.010

Summary:

- R²: 0.095
- Adjusted R²: 0.983
- F-test (Prob.): 0.000

Source: Author's Analysis, 2023

The variation in poverty reduction is explained by the three variables, government spending, financial deepening, and open unemployment, to the extent of approximately 98.3%. In contrast, 1.7% is explained by other unaccounted-for variables. The probability result using the fixed effect model is 0.000, meaning that the probability value is less than the 0.05 confidence level.

Government spending has a negative and significant impact on poverty. This means that poverty decreases inelastically with an increase in government spending. Increasing government spending by 1

trillion reduces the poverty rate by 0.088 percent. Government spending can be considered a safety net for poverty in Indonesia. The Indonesian government has implemented the right policies by increasing the effectiveness and sharpening the priorities of government spending in development, which will lead to a decrease in the poverty rate (Wahyudi, 2020). This implies that the higher the level of government spending, the lower the poverty rate.

Financial deepening has a negative and significant impact on poverty. This means that each 1% increase in financial deepening in Indonesian provinces will lead to a 0.065% reduction in poverty with other variables held constant. Meanwhile, open unemployment has a positive and significant impact on poverty. This implies that a 1% increase in unemployment leads to a 0.137% increase in poverty, with other variables held constant.

Discussion

Impact of Government Spending on Poverty

Government spending in Indonesia, along with increased government spending and poverty alleviation, shows the government's vision of increasing government spending to alleviate poverty. The Indonesian government has implemented the right policies, increasing the effectiveness and sharpening the priorities of government spending in development, leading to a decrease in the poverty rate (Wahyudi, 2020). The government's fiscal policy is the most effective in controlling economic stability and improving the living standards of the population during the pandemic. Government funds can prolong economic activity during difficult times. Some previous studies have shown that certain types of government spending can reduce poverty, such as infrastructure spending (Sasmal & Sasmal, 2016) and social spending (Sampurna & Ramadhani, 2019). Keynesian economists argue that government intervention in the economy is necessary to increase public spending on social programs and government projects, which can stimulate economic activity, economic growth, and poverty reduction.

Government spending allocation is made through development planning or the money-follow function. Government development planning aims to improve the welfare of its population, with one of the primary targets being poverty reduction. To date, the poverty rate in Indonesia has seen little change. In 2013-2020, there was a decreasing trend in the poverty rate, accompanied by increased enthusiasm of local governments to allocate funds to sectors directly impacting people experiencing poverty, such as social spending, health, and education. Government spending has proven effective in combating poverty, as it must be measurable and efficient (Yusri, 2022). This means that the higher the level of government spending, the lower the poverty rate.

Government spending can have a significant impact on poverty, depending on how resources are allocated and the effectiveness of the programs implemented. Here are some ways in which government spending can affect poverty:

1. **Social Welfare Programs:**

Governments often allocate funds for social welfare programs such as unemployment benefits, food assistance, housing subsidies, and healthcare. These programs can directly benefit individuals and families living in poverty by providing financial support and essential services.

2. **Education Spending:**

Investing in education is crucial for breaking the cycle of poverty. Governments that allocate sufficient funds to improve access to quality education, provide scholarships, and enhance vocational

training opportunities can contribute to reducing poverty in the long term by empowering individuals with the skills and knowledge needed for better job prospects.

3. Infrastructure Development:

Investing in infrastructure projects such as roads, bridges, and public transportation can stimulate economic growth, create jobs, and improve accessibility to markets and employment opportunities. This, in turn, can contribute to poverty reduction.

4. Employment Programs:

Government spending on job creation programs, vocational training, and initiatives that support small businesses can directly impact poverty by providing individuals with the means to secure stable and decent-paying employment.

5. Tax Policies:

Progressive tax policies that ensure a fair distribution of the tax burden, coupled with targeted social programs, can help redistribute wealth and reduce income inequality, ultimately lifting people out of poverty.

6. Macro-economic Stability:

Sound economic policies and fiscal discipline contribute to macro-economic stability, which, in turn, can create an environment conducive to job creation and poverty reduction.

It is important to note that the effectiveness of government spending in reducing poverty depends on factors such as the efficiency of program implementation, transparency, accountability, and the overall economic and political context. Additionally, a comprehensive approach that addresses the multidimensional aspects of poverty is often more successful than isolated interventions.

Impact of Financial Deepening on Poverty

Financial deepening refers to the process of increasing the range and efficiency of financial services and markets in an economy. This includes the development of banking services, capital markets, insurance, and other financial intermediaries. The impact of financial deepening on poverty can be multifaceted and can vary based on the specific context of the country or region. Here are some general ways in which financial deepening can affect poverty:

1. Increased Access to Finance:

Financial deepening can lead to improved access to financial services for individuals and small businesses, especially those in underserved or rural areas. This increased access can empower people by providing them with opportunities to save, invest, and manage their finances more efficiently.

2. Entrepreneurship and Job Creation:

Access to credit and other financial services can enable entrepreneurs and small businesses to start or expand their operations. This can lead to job creation and economic growth, contributing to poverty reduction by providing income-generating opportunities for the population.

3. Reduction in Informal Economy:

Financial deepening can contribute to the formalization of economic activities. When individuals and businesses have access to formal financial services, they are more likely to participate in the

formal economy, which can lead to increased tax revenues for the government and improved social services.

A country is considered to have financial deepening when its financial deepening ratio is more excellent than 20% and shallow when it is less than 20%. A deep financial system leads to economic development, higher income, increased job opportunities, and more savings. Savings are business investment capital (Harisuddin & Hartono, 2019). With the deepening of finance, regions can have broader and easier access to credit. Deep financial systems can reduce poverty both directly and indirectly. Therefore, regions with higher financial deepening ratios will have lower poverty rates.

Financial deepening can directly contribute to poverty alleviation by facilitating transactions and enabling people experiencing poverty to benefit from financial services, thereby increasing their income. Additionally, financial deepening can indirectly reduce poverty by stimulating economic growth. As demonstrated in a study in China, the growth of financial deepening allows underdeveloped areas to have broader and easier access to credit (Ran et al., 2020).

However, it is important to note that the impact of financial deepening on poverty reduction is not guaranteed and can be influenced by factors such as the effectiveness of financial institutions, regulatory frameworks, and the overall economic environment. Additionally, there is a need for inclusive financial policies to ensure that the benefits of financial deepening reach all segments of the population, including those in vulnerable or marginalized groups.

Impact of Unemployment on Poverty

Unemployment has a negative impact, and if unemployment occurs in a country, it can lead to political and social turmoil and negatively affect the population's welfare and long-term economic development prospects (Praja et al., 2023). Unemployment is one of the critical indicators for measuring poverty. If the response in a country increases, the poverty rate will also increase, as those in the active population lack adequate income for their daily needs (Suaidah et al., 2023). Unemployment in Indonesia remains an unresolved issue despite its strong correlation with poverty. A reduction in the unemployment rate will also lead to a reduction in the poverty rate, indicating that an increase in the unemployment rate will result in decreased productivity among the population (Futunanembun et al., 2023). Therefore, there is a positive relationship between the unemployment rate and the poverty rate (Utami et al., 2023).

The reprimanding has the effect of reducing people's income, so it will lowering the level of prosperity they achieve. An unemployed person has no income from his job. The needs of many and diverse communities make them try to meet their needs, what is done is to work to earn income. If they do not work or are unemployed, the consequences are not being able to meet their needs properly and causing the unemployed to have to reduce their consumption expenditure. When needs are not met, the impact is that they fall into the category of poor people and result in a swelling of the number of poor people.

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Unemployment can cause disruption to economic stability. Judging from aggregate demand, unemployment leads to a weakening of aggregate demand. Man must work to survive, because by working he will earn income that is used to spend on goods and services. If the unemployment rate is high and structural, then purchasing power will decrease, which in turn gives rise to a decrease in aggregate demand. Unemployment also causes disruption to socio-political stability and has adverse effects on people's welfare and prospects for economic development in the long run. The decline in people's welfare due to unemployment will certainly increase their chances of being trapped in poverty because they have no income.

CONCLUSION

This study concludes that government spending, financial deepening, and unemployment can be simultaneously applied in measuring poverty alleviation in Indonesia from 2012 to 2020. There is a negative impact of financial deepening on the poverty of the Indonesian population, and a high level of financial deepening helps reduce poverty in Indonesia. This study also found evidence that government spending has a more substantial influence on poverty alleviation. Higher government spending will lead to a reduction in the poverty rate. Furthermore, the study's results regarding the role of the unemployment rate indicate a weak relationship between unemployment and poverty. The impact of poverty depends on the unemployment rate. Moreover, with a better quality of the workforce, ample job opportunities, and a low unemployment rate, it will be more effective in reducing poverty.

REFERENCE

- Badan Pusat Statistik (2020). *Persentase Penduduk Miskin (P0) Menurut Provinsi dan Daerah*. Badan Pusat Statistik
- Badan Pusat Statistik (2021). *Penghitungan dan Analisis Kemiskinan Makro Indonesia Tahun 2021*. Badan Pusat Statistik
- Baltagi, B. (2021). *Econometric Analysis of Panel Data*. Springer
- Damayanti, A, & Perdini, W.L.F (2022). Pengaruh Tingkat Pengangguran Terbuka dan Pertumbuhan Penduduk Terhadap Tingkat Kemiskinan Di Kota Malang. *Independent: Journal of Economics*, 2(1), 1–15.
- Futunanembun, B.A., Rorong, I.P.F, dan Siwu, H.F.D. (2023). Pengaruh Pengeluaran Pemerintah Di Sektor Pendidikan Dan Kesehatan Terhadap Kemiskinan Di Provinsi Papua Barat. *Jurnal Berkala Ilmiah Efisiensi*, 23 (7), 217-228.
- Greene, W.H. (2012) *Econometric Analysis*. 7th Edition, Prentice Hall, Upper Saddle River.
- Harisuddin, H. Dan Hartono, D. (2019). Financial Deepening Impacts on Regional Economic Growth. *Signifikan: Jurnal Ilmu Ekonomi*, 8 (1), 23 – 36. <https://doi.org/10.15408/sjie.v8i1.8944>
- Lantu, Y.S.M., Koleanan, R.A.M., Rotinsulu, T.O (2017). Pengaruh Belanja Pemerintah terhadap Pertumbuhan Ekonomi dan Pengentasan Kemiskinan di Kota Bitung. *Jurnal Pembangunan dan Keuangan Daerah*, 19 (2) 2, 1-19. <https://doi.org/10.35794/jpekd.15785.19.2.2017>
- Nairizi, M. A. (2023). Analisis Pengaruh Kemiskinan, Pengangguran, Dan Inflasi Terhadap Pertumbuhan Ekonomi Indonesia. *Jurnal Jendela Inovasi Daerah*, 6(1), 38-58. <https://doi.org/10.56354/jendelainovasi.v6i1.131>
- Nurkse, R. (1952). Some international aspects of the problem of economic development. *The American Economic Review*, 42(2), 571-583.
- Praja, R.B., Muchtar, M., Sihombing, P.R. (2023). Analisis Pengaruh Indeks Pembangunan Manusia, Laju Pertumbuhan Penduduk, dan Tingkat Pengangguran Terbuka terhadap Kemiskinan di DKI Jakarta. *Ecoplan*, 6 (1), 78-86. <https://doi.org/10.20527/ecoplan.v6i2.656>

- Rahmawati, H. (2022). Analisis Fungsi Pengeluaran Pemerintah terhadap Tingkat Pertumbuhan Ekonomi Provinsi Jawa Timur. *Jurnal STEI Ekonomi (JEMI)*, 31 (2), 77 – 82. <https://doi.org/10.36406/jemi.v31i02.745>
- Ran, M., Chen, L., & Li, W. (2020). Financial deepening, spatial spillover, and urban–rural income disparity: Evidence from China. *Sustainability*, 12(4), 1450. DOI: <http://dx.doi.org/10.3390/su12041450>
- Rewilak, J. (2017). The role of financial development in poverty reduction. *Review of Development Finance*, 7 (2), 169-176. <https://doi.org/10.1016/j.rdf.2017.10.001>
- Samputra, P.L. dan Ramadhani, A.W. (2019). Efektifitas Bantuan Sosial Dalam Penanggulangan Kemiskinan Di Tengah Perlambatan Ekonomi Indonesia Dengan Pendekatan Nonparametrik. *Jurnal Perspektif Ekonomi Darussalam*, 5 (1), 10 -34. . <https://doi.org/10.24815/jped.v5i1.14227>
- Sasmal, R., & Sasmal, J. (2016). Public Expenditure, Economic Growth and Poverty Alleviation. *International Journal of Social Economics*, 43(6), 604–618. <https://doi.org/10.1108/IJSE-08-2014-0161>
- Suaidah, S., Harahap, I., Ardiansyah, M.R., Hamdani, F. (2023). Analisis Pengaruh Pendidikan, Jumlah Penduduk Dan Pengangguran Terbuka Terhadap Tingkat Kemiskinan Di Provinsi Sumatera Utara. *Jurnal Ilmiah Edunomika*, 7 (1), 1-13. <http://dx.doi.org/10.29040/jie.v7i1.7505>
- Utami, T., Riska, N., Afifah, A. P., Firmansyah, F., Albar, M. D., & Prasetyo, M. D. (2023). The Impact Of Unemployment And Poverty On Economic Growth In The City Of Palembang. *Indonesian Journal of Multidisciplinary Sciences*, 2(1), 137–147. <https://doi.org/10.59066/ijoms.v2i1.319>
- Wahyudi (2020). Pengeluaran Pemerintah dan Implikasinya Terhadap Pertumbuhan Ekonomi dan Tingkat Kemiskinan di Indonesia Prosiding Seminar Akademik Tahunan Ilmu Ekonomi dan Studi Pembangunan, 103 – 113.
- Widarjono, A. (2013). *Ekonometrika : Pengantar dan Aplikasinya Disertai Panduan Eviews*. UPP STIM YKPN.
- WorldBank.(2016).*Financial development*. World Bank.
- Yusri, A. (2022). Does Government Expenditure Affect Poverty, Health, and Education? Evidence from Aceh, Indonesia *Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning*, 6(1), 1 – 20. <https://doi.org/10.36574/jpp.v6i1.249>