



## The Influence of Social Assistance and Education on Poverty Rates through GRDP in Papua Province in 2018-2022

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### Abstract

The purpose of conducting this research was to determine the effect of social assistance on poverty rates through economic growth in 29 urban districts in Papua province in 2018-2022. Research data uses panel data obtained from the Central Bureau of Statistics with research objects of 29 urban districts in the province of Papua. The research method used is path analysis. The research results show that cash food assistance and the Smart Indonesia program have no effect on poverty levels. While direct cash assistance has a significant negative effect on the level of poverty.

**Keywords:** Social Assistance, GRDP, Poverty Level, Influence, Path Analysis

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### INTRODUCTION

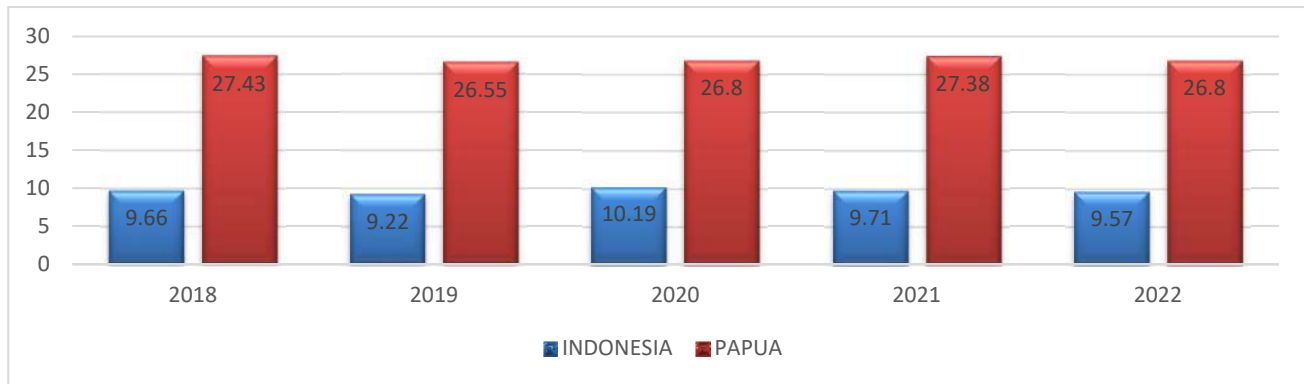
Poverty is a problem that hinders the economic development of a country. Development is an effort to achieve higher output growth compared to population growth. If a country's economic growth is high, then a country's development goals can be achieved.

One way to realize a country's economic growth is to reduce poverty rates, full employment opportunities and have an impact on economic growth.

Poverty is not static but dynamic and always growing. Figures in statistics do not reflect economic mobility. The income received

by households always changes from one period to another. This is due to demographic and economic events and changes in wages (Fadhli, Himmah, & Taqiyuddin, 2021). Papua Province is a province that has the highest poverty rate in

Indonesia. Judging from the 2018-2022 data, Papua Province is the province with the number one poverty rate among 34 provinces in Indonesia. The poverty rate in Papua Province fluctuates with a downward trend.



**Figure 1.** Poverty Levels of Papua and Indonesia in 2018-2022 (%)

Source : Central Bureau of Statistics, 2022

However, the decline in the poverty rate in Papua is still far behind the national average poverty rate and is still the province with the highest poverty rate in Indonesia. Can be seen in table 1 that Papua Province is far behind in terms of poverty percentage. Papua Province has a much higher poverty rate than the national average poverty rate.

The poverty rate in Papua Province illustrates that Papua Province is lagging in its economic development. Poverty that occurs in Papua or in Indonesia is a type of structural poverty. Where structural poverty is poverty caused by the structure of a society that interferes or dominates social, economic, political, and cultural facilities.

The problem of poverty must be studied more deeply and has become the focus of the government in terms of reducing the number of poor people. The government has taken various ways to reduce the number of poor people, one of which is by helping the poor. Cash assistance

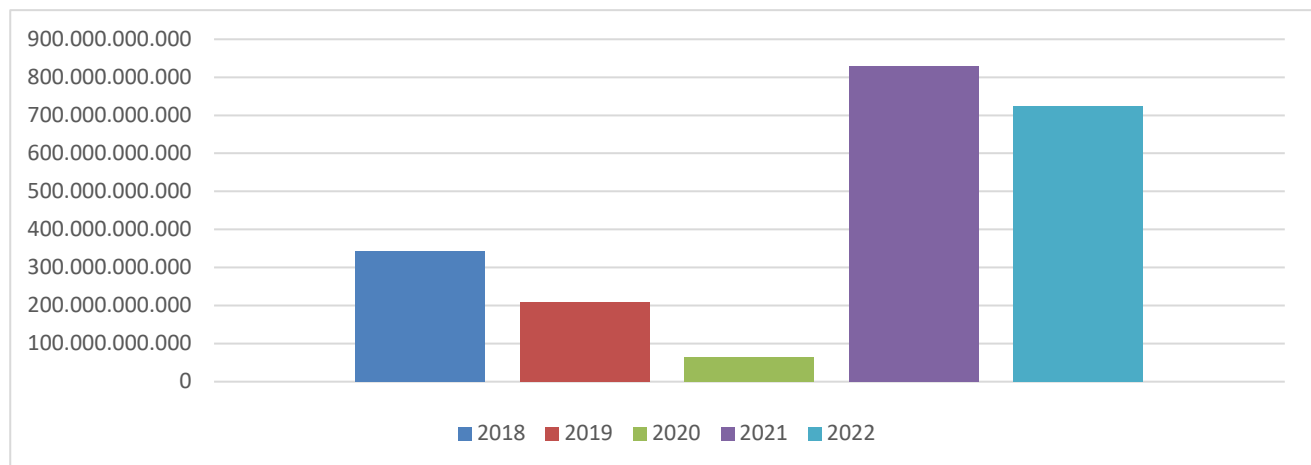
provided by the government is very effective but needs to be carefully designed. Several issues that need attention are the allocation of aid must be on target.

Assistance provided by the government for each province in Indonesia includes Cash Food Assistance, Smart Indonesia Program and Direct Cash Assistance. Cash Food Assistance is assistance from the government aimed at Beneficiary Families (KPM). KPM is a community that receives material assistance to support the economy. The government transfers funds every month to buy food at certain stalls (Nadhifah & Mustofa, 2021).

Cash Food Assistance is one of the government's assistances aimed at the poor in the form of cash. This is enforced by the government because beneficiaries can buy staples anywhere and anytime. In addition, beneficiaries can arrange the amount of food needed. Cash food assistance is provided by the government with the aim of increasing

economic growth and reducing the number of poor people. Provision of Cash Food Assistance in Papua Province in 2018-2022 fluctuated with an upward trend. The provision of cash food

assistance began in 2018. Where the distribution is still uneven. At the start of the provision of Cash Food Assistance in 2018, Papua Province received assistance of IDR 342,936,220,000.



**Figure 2.** Cash Food Assistance in Papua Province in 2018-2022

Source : Central Bureau of Statistics, 2022

Then in 2019 the provision of assistance decreased to IDR 208,454,400,000 due to the poverty rate which was decreasing from 27.43% to 26.5% in 2019. Then, when there was the Covid-19 pandemic, the poverty rate in Papua began to rise, but this assistance decreased to IDR 65,281,600,000. Then the government again increased the Cash Food Assistance budget in Papua Province in 2021 and 2022.

The increase was due to the Covid-19 pandemic which caused the government to provide more incentives for each province in Indonesia. In 2020 Cash Food Assistance in Papua Province has decreased due to a lack of data collection on the number of Beneficiary Families (KPM) in Papua Province. Whereas in 2021 the amount of Non-Cash Food Assistance (BPNT) will increase to IDR 829,188,400,000.

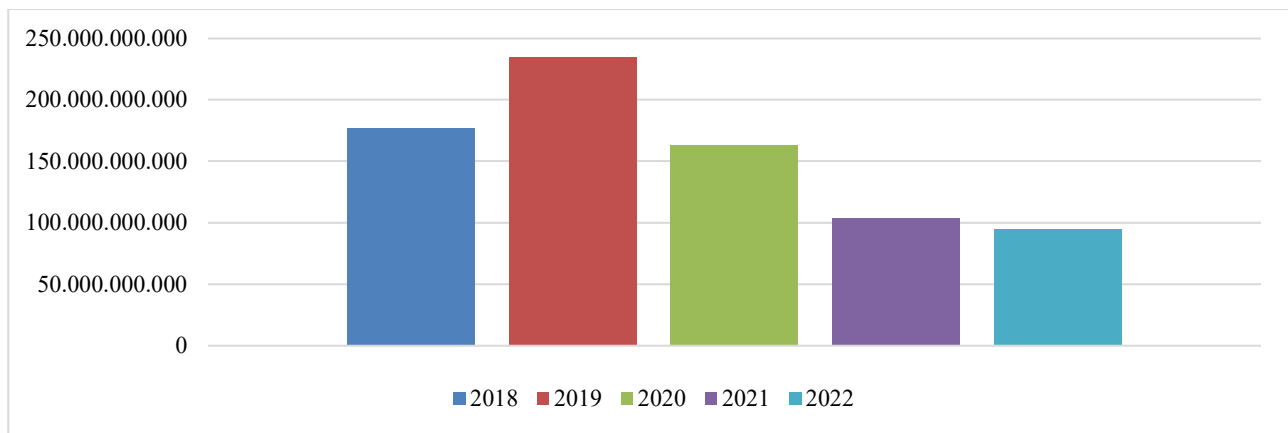
In 2022 the Cash Food Assistance budget is reduced to IDR 723,129,600,000 due to a decrease in the poverty rate from 27.38% in 2021

and decreased to 26.8% in 2022. The Cash Food Assistance provided by the government to Papua Province is higher than Cash Food Assistance given to other Provinces.

This is because the government wants to reduce the level of poverty in Papua Province which has exceeded the average national poverty rate. The government's focus on reducing the poverty rate in Papua Province is not only through the provision of Cash Food Assistance. However, the government also helps improve Human Resources (HR) in the form of the Smart Indonesia Program (PIP).

The Smart Indonesia Program (PIP) is assistance in the form of cash given to students aged 6 to 21 years who come from poor families and are used to help with education costs. The provision of assistance for the Smart Indonesia Program (PIP) by the government for Papua Province has fluctuated. In 2018 the amount of Smart Indonesia Program Assistance (PIP) was

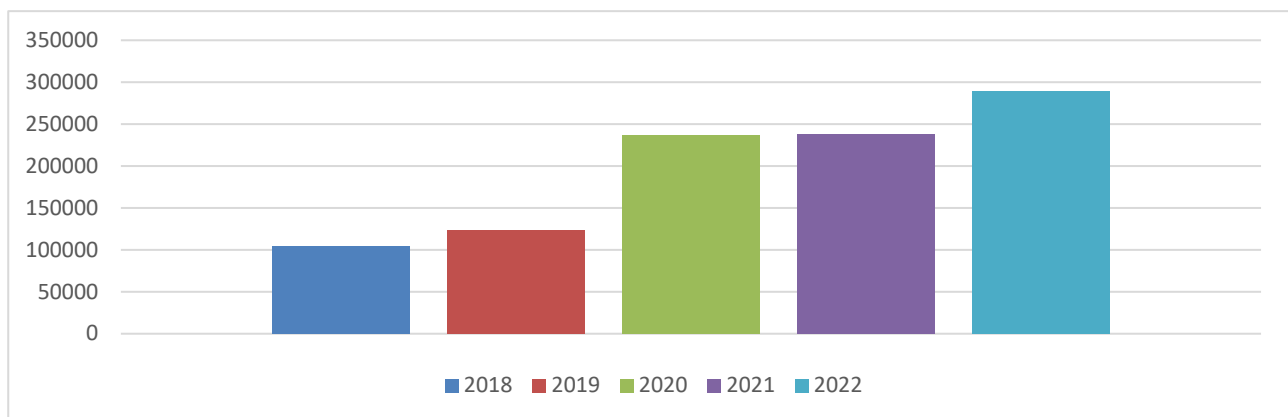
IDR 176,771,500,000. Then in 2019 it increased by IDR 234,393,025,000. This is one of the government's efforts to improve the quality of human resources.



**Figure 3.** Smart Indonesian Program in Papua Province 2018-2022

Source : Central Bureau of Statistics, 2022

If the quality of Human Resources (HR) in Papua Province increases, the poverty rate in Papua Province can be overcome. However, from 2020 to 2022 the amount of assistance for the Smart Indonesia Program (PIP) has decreased because PIP assistance funds in Papua Province have not been 100% disbursed so that many underprivileged students have not received educational assistance from the government.



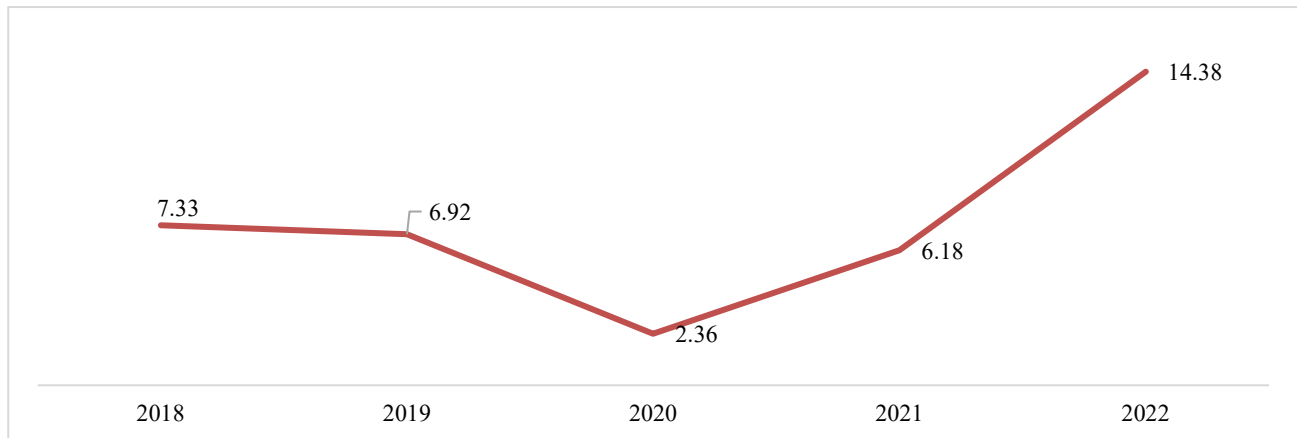
**Figure 4.** Direct Cash Assistance in Papua 2018-2022

Source : Central Bureau of Statistics, 2022

In addition to Food Aid and Smart Indonesia Program assistance, the government also provided cash assistance to Papua Province, namely Direct Cash Assistance (BLT). Direct Cash Assistance (BLT) is a stimulus provided by the central government for the Papuan government in the context of reducing poverty. Direct Cash Assistance (BLT) is provided by the government with an amount of IDR 600,000 for three months or three stages.

The provision of BLT is expected to help the community's economy and reduce poverty levels. The Direct Cash Assistance (BLT) received by the Province of Papua from 2018 to 2022 is always increasing every year.

The provision of aid which always goes up reflects the efforts of the central government in reducing the poverty rate through increasing aid so that it can help the economy of the people in Papua Province.



**Figure 5.** Gross Regional Domestic Product of Papua Province 2018-2022

Source : Central Bureau of Statistics, 2022

By providing social assistance stimulus in the form of Cash Food Assistance, the Smart Indonesia Program (PIP) and Direct Cash Assistance (BLT) it is hoped that it will be able to reduce poverty levels through increased income which is reflected in the Gross Regional Domestic Product (GDP).

GRDP is the total value or output produced by an economy in a certain area. Both by residents of the area and other residents living in the area (Todaro, Economic Development, 2002). In other words, GRDP is the amount of goods and services produced by a region in a certain period. With GRDP we can know the economic growth of a region.

The GRDP of Papua Province in 2018-2022 has fluctuated. In 2018 the percentage of Papua Province's GRDP was 7.33% and decreased from 2019 to 2020. The biggest decrease occurred in 2020, which was 2.36%. The highest decline in GRDP was in Papua Province due to the

pandemic which resulted in a paralyzed economy. Meanwhile, the GRDP rate in Papua Province will increase again in 2021 and 2022 by 6.18% and 14.38%.

The government has carried out various policies to reduce poverty in Indonesia. One of the policies carried out by the government is to provide social assistance to the poor to help their economy. By helping in the form of cash, the government hopes that this assistance can increase public consumption and increase economic growth. In this way the poverty level will be reduced. This study aims to determine how much influence social assistance has on poverty levels through economic growth.

## RESEARCH METHODS

This study uses quantitative research and uses time series and cross-sectional data using Eviews 12 software to analyze the research data. The data used in this study are data on Cash

Food Assistance, Smart Indonesia Program Assistance, Direct Cash Assistance, GRDP and Poverty Levels in Papua Province in 2018-2022. Data collection was taken from the Central Statistics Agency (BPS), the Ministry of Education and Culture and the Papua Province website in the form of Cash Food Assistance (BPT), PIP Assistance, GRDP and the Poverty Rate of Papua Province for 2018-2022.

While the objects in this study consisted of 29 Regencies/Cities of Papua Province with a time span from 2018-2022. The research method used in this study was quantitative descriptive statistical analysis and path analysis using the Eviews 12 analysis tool. Path analysis was carried out using simple linear regression and the Sobel test to determine the effect of social assistance on the poverty level through GRDP as an intervening variable. Structural stability used as follows:

$$\begin{aligned} \text{LOG}(\text{GRDP}_{it}) &= \alpha + \text{LOG}(\alpha_1 X_{1it}) + \text{LOG}(\alpha_2 X_{2it}) \\ &+ \text{LOG}(\alpha_3 X_{3it}) + \varepsilon_1 \\ \text{POV}_{it} &= \alpha + \text{LOG}(\alpha_1 X_{1it}) + \text{LOG}(\alpha_2 X_{2it}) + \\ &\text{LOG}(\alpha_3 X_{3it}) + \text{LOG}(\alpha_4 Z_{1it}) + \varepsilon_1 \end{aligned}$$

Where GRDP is Gross Domestic Regional Product, POV is Poverty Levels,  $X_{1it}$  is Cash Food Assistance,  $X_{2it}$  is Smart Indonesia Program,  $X_{3it}$  is Direct Cash Assistance and  $Z_{1it}$  is GRDP.

## RESULTS AND DISCUSSION

In this study using two structural models. The first model uses GRDP as the dependent variable, while the second model uses the poverty rate as the dependent variable. The testing steps in this study are two-model regression, two-model classical assumption test, two-model hypothesis testing, path analysis, and

sobel test. The purpose of the regression analysis is to predict the magnitude of the Dependent Variable using data from the Independent Variable whose magnitude is known.

While the classical assumption test is to provide certainty that the regression equation obtained has accuracy in estimation, is not biased and is consistent. Hypothesis testing is needed to decide whether to accept or reject the hypothesis. Meanwhile, the Sobel test is used to determine the relationship between the independent variables and the dependent variable through the intervening variables.

**Table 1.** Panel Data Regression Analysis Results I

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.93042	1.816812	7.117093	0.0000
LOGX <sub>1</sub>	-0.005165	0.012360	-0.417894	0.6768
LOGX <sub>2</sub>	-0.024427	0.031732	-0.769791	0.4430
LOGX <sub>3</sub>	0.109397	0.051525	2.123192	0.0359

Source : Data Processed, 2023

The results of the first structural regression analysis show that the cash food assistance variable and the Smart Indonesia program variable have a negative coefficient, which means that if there is a 1% increase in cash food assistance units and the Smart Indonesia program, it will reduce GRDP. Meanwhile, the direct cash assistance variable has a positive coefficient, which means that if there is a 1% increase in cash assistance, it will reduce the poverty rate.

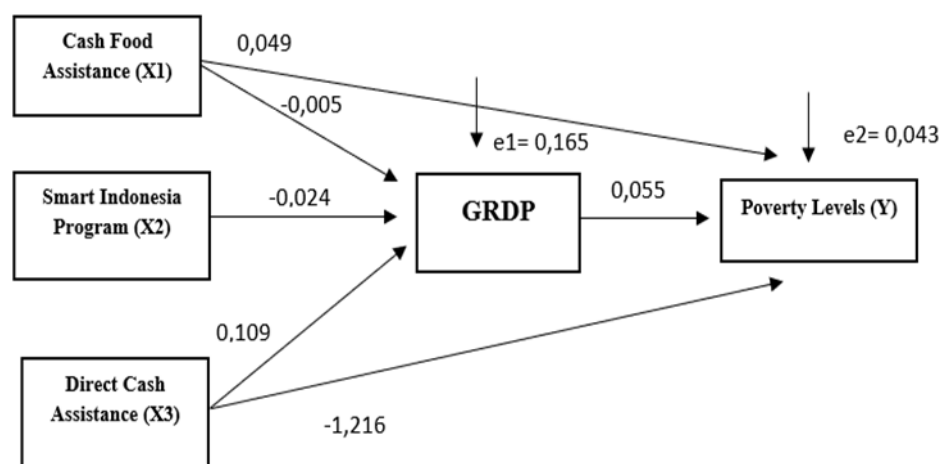
While the residual/error value of the Cash Food Assistance variable, Smart Indonesia Program and Direct Cash Assistance to GRDP is 0.165 or 16.5%. Which means that the value is the influence of other variables not tested in this study. Based on the second sub-structural

equation model, the results show that the Cash Food Assistance and GRDP variables are positive, which means that if there is a 1% increase in the Cash Food Assistance and GRDP variables, the poverty rate will increase. Meanwhile, the Smart Indonesia Program and Direct Cash Assistance Program variables are negative, which means that if there is a 1% unit increase in these variables, the poverty rate will decrease.

**Table 2.** Panel Data Regression Analysis Results II

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	58.45977	5.131533	11.39226	0.0000
LOGX <sub>1</sub>	0.049816	0.029031	1.715986	0.0889
LOGX <sub>2</sub>	-0.063854	0.074670	-0.855142	0.3943
LOGX <sub>3</sub>	-1.216692	0.123318	-9.866316	0.0000

Source : Data Processed, 2023



**Figure 6.** Path Diagram Between Variables

Source : Data Processed, 2023

After carrying out two sub-structural regressions, we found the structural equation of this study through path analysis. Based on the coefficient of determination test in the structural equation model I, the result is  $e_1 = \sqrt{1 - R_1} = 1 - 0,972617 = \sqrt{0,027383} = 0,165$ .

#### Equation I :

$$\text{LOG}(\text{GDRP}_{it}) = 12.93042 - \text{LOG}(0.005165X_{1it}) - \text{LOG}(0.024427X_{2it}) + \text{LOG}(0.109397X_{3it}) + 0.165e_1$$

Meanwhile, in the structural equation model II, it is found that  $e_2 = \sqrt{1 - R_2} = 1 - 0,998121 = \sqrt{0,001879} = 0,043$ .

#### Equation II :

$$\text{POV}_{it} = 58.45977 + \text{LOG}(0.049816X_{1it}) - \text{LOG}(0.063854X_{2it}) - \text{LOG}(1.216692X_{3it}) + 0.055101Z_{it} + 0,043 e_2$$

From the results of the Sobel test, it is then compared with the t table to test the effect and significance of the results of the analysis. If t count < t table, then the model has no significant effect. Meanwhile, if the value of t count > t table then the model has a significant influence. The Sobel test results can be seen in table 3.

Based on the Sobel test result in table 3, cash food assistance and the Smart Indonesia program have a significant effect on the poverty

level through GRDP as an intervening variable. While direct cash assistance has no significant effect on the level of poverty through GRDP as an intervening variable.

**Table 3.** Sobel Test Results

Model	Sobel test	T table	Information
Cash food assistance to the poverty level through GRDP Smart Indonesia Program to the Poverty Levels through GRDP	-0,23	1,98	Rejected
Direct cash assistance to the Poverty Level through GRDP	-2,4	1,98	Accepted
	0,99	1,98	Rejected

Source : Data Processed, 2023

## CONCLUSION

Based on the results of the analysis and discussion that has been carried out regarding the effect of Social Assistance on the Poverty Level through GRDP as an intervening variable in Papua Province in 2018-2022 it can be concluded that: The Effect of Cash Food Assistance on GRDP: From testing the hypothesis, the Cash Food Assistance variable has no effect on GRDP in Papua Province. This means that the higher the Cash Food Assistance, the lower the PDRB. The Influence of the Smart Indonesia Program on GRDP: From testing the

hypothesis, the Smart Indonesia Program variable has no effect on GRDP in Papua Province. This means that the higher the Smart Indonesia Program, the lower the PDRB.

The Effect of Direct Cash Assistance on GRDP: From testing the hypothesis, the Direct Cash Assistance variable has a positive and significant effect on GRDP in Papua Province. This means that the higher the Direct Cash Assistance, the GRDP is also higher.

The Effect of Cash Food Assistance on Poverty Levels: From the hypothesis testing, the Cash Food Assistance variable has no effect on the Poverty Level in Papua Province. This means that the higher the Cash Food Assistance, the higher the Poverty Level.

The Influence of the Smart Indonesia Program on Poverty Levels: From testing the hypothesis, the Smart Indonesia Program variable has no effect on the Poverty Level in Papua Province. This means that the higher the Indonesia Smart Program, the lower the poverty rate.

## REFERENCES

- Annisa Marni Melati, S. d. (2021). Pengaruh Belanja Pendidikan, Belanja Kesehatan Dan Belanja Bantuan Sosial Terhadap Kemiskinan Pada Kabupaten Dan Kota di Provinsi Jawa Barat. *Indonesian Accounting Research Journa*, 3.
- Arsyad, L. (2016). *Ekonomika Makro*. Bandung: PT Refika Aditama.
- Andriaswati, E., & Utami, S. (2022). Determinants of Poverty Rates in Papua Province in 2011 - 2019. *Efficient: Indonesian Journal of Development Economics*, 5(1), 1453-1467. <https://doi.org/10.15294/efficient.v5i1.50928>
- Badan Pusat Statistik. (2022, March 22). Retrieved from Badan Pusat Statistik Web site: <https://www.bps.go.id/indicator/23/192/1/persentas-e-penduduk-miskin-menurut-provinsi.html>
- Badan Pusat Statistik. (2023). *Konsep PDRB*. Jakarta: BPS.
- Marliana, R. R. (2020). Partial Least Squares-Structural Equation Modeling Pada Hubungan Antara Tingkat



- Kepuasan Mahasiswa dan Kualitas Google Classroom Berdasarkan Metode Webqual 4.0. *Jurnal Matematika, Statistika dan Komputansi*, 176.
- Melati, A. M., Sudrajat, & Burhany, D. I. (2021). Pengaruh Belanja Pendidikan, Belanja Kesehatan Dan Belanja Bantuan Sosial Terhadap Kemiskinan Pada Kabupaten Dan Kota Di Provinsi Jawa Barat. *Indonesian Accounting Research Journal*, 3-4.
- Nabilah, R., & Sugiri, D. (2022). Apakah Bantuan Sosial dan Belanja Modal Mempengaruhi Tingkat Kemiskinan Daerah di Provinsi Sumatera Selatan? *Fokus Bisnis : Media Pengkajian Manajemen dan Akuntansi*, 4.
- Nadhifah, L. R., & Mustofa, N. H. (2021). Pengaruh PKH dan BPNT terhadap Kemiskinan dengan Pertumbuhan Ekonomi Sebagai Variabel Moderasi. *Journal Of Islamic Economics and Banking*, 6.
- Nuraniah. (2019). Analisis Pengaruh Kesempatan Kerja, Belanja Bantuan Sosial dan Pertumbuhan Ekonomi terhadap Tingkat Kemiskinan di Provinsi Kalimantan Selatan. *Jurnal Ilmu Ekonomi dan Pembangunan*, 6.
- PIP Kemdikbud. (2023, March 23). Retrieved from PIP Kemdikbud web site: <https://pip.kemdikbud.go.id/penyaluran/kabupaten/03?tahun=2018>
- Presentase Penduduk Miskin (Po) Menurut Provinsi dan Daerah 2021-2022. (2023, April 5). Retrieved from Badan Pusat Statistik: <https://www.bps.go.id/indicator/23/192/1/persentase-penduduk-miskin-menurut-provinsi.html>
- Prof. H. Imam Ghozali, M. (2014). *Structural Equation Modeling*. Semarang: Universitas Diponegoro Semarang.
- Program Indonesia Pintar Kemendikbud. (2023, March 23). Retrieved from PIP Kemdikbud web site.
- Pusat Data dan Analisa Pembangunan Provinsi Papua. (2022, March 25). Retrieved from Pusat Data dan Analisa Pembangunan Provinsi Papua web site: <https://pusdalisbang.papua.go.id/papuapudata/paitua/>