

Can village funds reduce the poverty rate in Kalimantan?

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ABSTRACT

Village funds have been rolled out by the government since 2015. The purpose of this study is to analyze the effect of village funds on poverty on the island of Kalimantan. In addition, this study investigated whether village funds were very effective in reducing poverty rates during the COVID-19 pandemic on the island of Kalimantan. This study examined all 47 districts that received village funds in the 2015-2022 period. The analysis method used is panel data regression. The results show that village funds have a negative effect on poverty on the island of Kalimantan. This finding indicates that village funds can reduce poverty rates on the island of Kalimantan. More importantly, the interaction between the village fund and COVID-19 variables has a negative sign. This finding implies that village funds are very effective in reducing poverty rates during the COVID-19 pandemic. In addition to village funds, high economic growth can reduce poverty rates on the island of Kalimantan. This finding implies that the government must continue to increase village funds and carry out good monitoring so that village funds can effectively reduce poverty rates in the regions.

Introduction

Poverty is one of the main problems in every developing country, such as Indonesia. As a developing country, Indonesia has a big challenge in reducing the poverty rate, which is still relatively high (Anam et al., 2023). The number of poor people in March 2024 was 25.22 million people (9.03%). Based on location, the number of poor people is higher in rural areas than in urban areas. The number of urban poor in March 2024 was 11.64 million people (7.09%). Meanwhile, the number of rural poor in March 2024 was 13.58 (11.79%) (bps.go.id).

The poverty rate by province shows that the highest poverty rate is in the provinces on the island of Java. The total number of poor people on the island of Java is 13,237 million people (52.49%) in 2024. The next poverty level is on the island of Sumatra with a poor population of 5,551 million people (22.01%). The poverty rate in Bali and Nusa Tenggara is 2,021 million people (8.01%). The number of people in poverty on the island of Sulawesi is 1,962 million people (7.78%). The poverty rate on the islands of Maluku and Irian is 1,512 million people (5.99%). The smallest poverty rate is the poverty rate on the island of Kalimantan, with the number of poor people as many as 0.934 million people (3.70%) (bps. go.id)

Although the poverty rate on the island of Kalimantan is generally lower than on other islands, the poverty rate in some provinces is still high. The highest poverty rate is in West Kalimantan with 336,080 people in 2023, followed by East Kalimantan with 221,340 people. The province with the lowest poverty rate is North Kalimantan, with a total of 47,830 people. North Kalimantan province's poverty rate is the lowest in Indonesia in 2023.

Kalimantan is a region where most of its economy depends on primary sectors such as mining, forestry, and plantations. These sectors, although important, tend to have a cyclical nature and are vulnerable to fluctuations in global commodity prices (Kurniawati & Lestari, 2024). When the price of commodities such as coal or palm oil declines, companies may be forced to reduce production or close

operations, resulting in mass layoffs and increased poverty rates. The heavy dependence on primary sectors also means that economic diversification in Kalimantan is relatively low. The lack of investment in more labor-intensive sectors such as manufacturing and services has led to limited employment opportunities for local laborers. This is further exacerbated by a lack of adequate infrastructure and low accessibility in some parts of Kalimantan, which hinders the growth of other industries outside of those primary sectors.

Village funds are a strategic policy launched by the government to accelerate development in rural areas, including in provinces in Kalimantan (Permatasari et al., 2021; Hartojo et al., 2022). With the allocation of funds provided, the government hopes that villages can take advantage of it to implement various programs that can improve the standard of living of the community and reduce the poverty rate (Permatasari et al., 2021; Hilmawan et al., 2023). In Kalimantan, where there are many remote areas and inadequate infrastructure, village funds are a very important source of economic development and poverty levels. Through village funds, the government aims to finance various projects such as the construction of village roads, the provision of clean water, and the development of health and education facilities in villages. In addition, these funds are also used for the economic empowerment of village communities through skills training, development of small and medium enterprises (SMEs), and sustainable agriculture and fisheries programs. Thus, village funds not only focus on physical development but also on capacity building and community economic welfare.

Many studies have been conducted to explore the impact of village funds on poverty in Indonesia since it was launched in 2015. Several studies analyzed the influence of village funds on poverty in districts throughout Indonesia (Sigit & Kosasih, 2020; Arham & Hatu, 2020; Ernawati et al., 2021; Aji, 2022; Anam et al., 2023). Several studies examined the influence of village funds on poverty at the provincial level (Lubis & Dahraini, 2018; Azhari et al., 2022; Septriani, 2023; Manurung et al., 2023; Roy et al., 2024). Research on the impact of village funds on poverty reduction at the district level has also been carried out by many researchers (Oktavia & Wihastuti, 2020; Rosalina & Nuryadin, 2020; Sutresno et al., 2023; Hariyanto et al., 2023). Based on the review above, there are still a few studies that investigate the influence of village funds on the poverty rate in Kalimantan. Several studies explored the influence of village funds on the island of Kalimantan (Lubis & Dahraini, 2018), in East Kalimantan (Roy et al., 2024), in Banjar Regency (Rosalina & Nuryadin, 2020). However, there has been no research on the effect of village funds on poverty during the COVID-19 pandemic.

COVID-19 has led to the implementation of lockdown policies to limit the economic and social activities of the community, aiming to reduce the spread of the virus. Economic activity has decreased, resulting in deteriorated economic growth, which was negative in the second quarter of 2020. The economic downturn has led to an increase in unemployment. Unemployment increased from 4.94% in February to 7.07% in September in 2020.

The purpose of this study is to examine the influence of village funds on poverty in all districts on the island of Kalimantan. There are two objectives of this research. First, it analyses the impact of village funds on the poverty rate in all districts on the island of Kalimantan. Second, it analyses whether village funds can reduce poverty levels during the COVID-19 pandemic by interacting between COVID-19 variables and village funds. Several contributions are made from this research. First, studies that analyze the influence of village funds on poverty in all districts on the island of Kalimantan using the latest data during the COVID-19 pandemic are not available yet. Second, there has been no research that investigates whether village funds can reduce poverty rates in districts on the island of Kalimantan during COVID-19.

Literature Review

Poverty has many different definitions because poverty is a complex problem related to various causal factors. According to the Central Statistics Agency (BPS), poverty can be interpreted as a state of inability of a person to meet economic needs, especially to meet basic food and non-food needs, which is measured based on expenditure. There are several causes of poverty from an economic perspective (Arham & Hatu, 2020). First, there is inequality in resource ownership, which causes inequality in income distribution. Second, there is a difference in the quality of human resources. Third, there is a difference in access to capital. These factors are what create the vicious cycle of poverty theory. Poverty

is not just an economic problem, but also an inability to fulfill basic rights and unequal treatment in a dignified life. These basic rights include basic needs such as food, health, education, and housing.

There are several types of poverty, namely absolute poverty, relative poverty, natural poverty, structural poverty, and cultural poverty (Faharuddin & Endrawati, 2022). Absolute poverty is a condition where a person's income is below the poverty line, so they are unable to meet the basic needs of the minimum standard of living. These basic needs include important elements such as food, clothing, health, housing, and education. Relative poverty is a type of poverty caused by the inability of development policies to reach all levels of society, resulting in an uneven distribution of income. Natural poverty is poverty that occurs due to natural and geographical conditions that do not support human welfare, such as dry and irregular natural conditions, scarcity of natural resources, or an isolated geographical location. Structural poverty refers to a situation in which a group of people cannot access economic facilities and means equally because social structures do not support a fair distribution of income. Cultural poverty refers to the mindset and way of life shown by an individual or group. This is due to the lifestyle and cultural background of a person or group. This kind of grouping of societies indicates an unwillingness to actively participate in development initiatives and shows a lack of motivation to improve and change their quality of life.

One of the government's efforts to reduce poverty in rural areas is through fiscal policy in the form of fund transfers from the central government to local governments. Following Law No. 22 and 25 of 1999 and Law No. 23 of 2004, the central government is obliged to provide transfer funds to regional governments in the form of general allocation funds (DAU) and specific allocation funds (DAK) to accelerate the process of economic decentralization (Anam et al., 2023; Hilmawan et al., 2023). In addition, since 2015, the central government has also distributed transfers to the regional government in the form of village funds. The purpose of the village fund is to encourage economic growth in the region, increase income, and reduce the poverty rate (Arham & Hatu, 2020; Anam et al., 2023).

Several studies have analyzed the impact of village funds on poverty in Indonesia. Anam et al. (2023) using cross-sectional data shows that village funds can reduce poverty levels in all districts in Indonesia in 2019, 2020, and 2021. The role of village funds in reducing poverty increased from 2019 to 2020 but decreased in 2021. Village funds are also able to reduce poverty levels in all districts in Indonesia (Aji, 2022). These findings are in line with research from Arham and Hatu (2020), Sigit and Kosasih (2020) and Ernawati et al. (2021) which documented that village funds can reduce poverty levels at the provincial level throughout Indonesia.

Several studies have examined the influence of village funds at the provincial level. Lubis and Dahraini (2018) analyzed the impact of village funds on poverty in 47 districts on the island of Kalimantan in 2015-2017. The findings documented that village funds can reduce the poverty level on the island of Kalimantan. Azhari et al. (2022) investigated the influence of village funds on poverty levels in Aceh province. The number of districts studied was 23 during the 2015-2021 period. The results show that village funds reduce poverty levels in Aceh province. Village funds can also reduce poverty levels in Gorontalo province (Abdullah et al., 2022), Bengkulu province (Septriani, 2023) and Lampung province (Manurung et al., 2023). However, there are studies showing that village funds are not effective in reducing poverty rates in East Kalimantan Province (Roy et al., 2024).

Several studies also examined the impact of village funds on the poverty rate at the district level. Sutresno et al. (2023) indicated that village funds are able to reduce poverty levels in the Brebes district. Village funds are also able to reduce poverty levels in the Pasaman district (Daforsa & Handra, 2019). Oktavia and Wihastuti, (2020) also showed that the poverty rate has decreased after the launch of village funds in Kulonprogo Regency. However, some studies indicated that village funds have no effect on reducing poverty rates in Banjar district (Rosalina & Nuryadin, 2020) and Belitung districts (Hariyanto et al., 2023).

Research Methods

Data

This study analyzes the influence of village funds on the poverty rate in all districts on the island of Kalimantan during 2015-2022. All districts that receive village funds are objects of this study. The number of districts was 47. The data for this study are panel data, comprising a total of 376 observations with balanced panel data. This study does not include municipalities on the island of Kalimantan

because this area does not receive any village funds. In addition to village funds, this study includes other independent variables, namely Gross Regional Domestic Product (GRDP) at the district level, local government expenditure, and COVID-19. The data used in this study is secondary data. The poverty rate was obtained from the Central Statistics Agency (BPS) from each province, namely the provinces of West Kalimantan, Central Kalimantan, South Kalimantan, East Kalimantan, and North Kalimantan. Data on village funds and district government expenditures were obtained from the Directorate General of Financial Balance (DJPK). GDP data is obtained from the Central Statistics Agency (BPS) in each district.

Data Analysis Methods

This study uses a panel data regression approach. There are several advantages of panel data regression. First, panel data can explicitly address individual heterogeneity by utilizing specific individual variables. Second, by integrating time series and cross-sectional observations, panel data can reach a wider and more diverse range of information and variations, reduce collinearity between variables, increase degrees of freedom, and obtain efficient outcome estimates.

The regression model to examine the influence of village funds on poverty on the island of Kalimantan follows some previous studies (Lubis & Dahraini, 2018; Arham & Hatu, 2020; Ernawati et al., 2021; Septriani, 2023). The equation of the panel regression model to analyze the impact of village funds on poverty on the island of Kalimantan can be written in the form of the following equations:

$$\text{Poverty}_{it} = \beta_0 + \beta_1 \text{LVfund}_{it} + \beta_2 \text{LGRDP}_{it} + \beta_3 \text{LGov}_{it} + \beta_4 \text{COVID}_{it} + e_{it} \quad (1)$$

Poverty is the percentage of the poor population, Vfund is the Village Fund, GRDP is the gross domestic regional product, which measures the production of goods and services in each district, and Gov is the expenditure of the local government in each district. COVID-19 has reduced Indonesia's economic growth and subsequently had an impact on the poverty rate in Indonesia, including Kalimantan. To examine the effect of COVID-19 on poverty, this study included COVID-19 as a dummy variable. All independent variables are in the form of natural logarithms (ln).

For further analysis, this study wanted to investigate whether village funds had an effect on reducing poverty rates during COVID-19. To answer the purpose of this study, this study examines the interaction between the village fund variable and the COVID-19 variable. The regression equation is as follows:

$$\text{Poverty}_{it} = \phi_0 + \phi_1 \text{LVfund}_{it} + \phi_2 \text{COVID} * \text{LVfund}_{it} + \phi_3 \text{LGRDP}_{it} + \phi_4 \text{LGov}_{it} + \phi_5 \text{COVID}_{it} + e_{it} \quad (2)$$

This study employs the static panel regression. There are three estimation methods used to estimate the static panel regression, consisting of the common effect (CE), fixed effect (FE), and random effect (RE) methods. From these three estimation methods, we select the most appropriate to estimate the static panel regression. There are three tests used to select the right estimation method. First, the F test is used to select between the common effect and fixed effect methods. Second, the LM test is used to select between the common effect and random effect methods. Third, the Hausman test is used to choose between fixed effects and random effects (Imawan & Purwanto, 2020).

Variable Measurement

In this section, we will explain the dependent and independent variables that will be used in this study. The dependent variable is the poverty rate in Kalimantan Island. The number of poor people is the total population that is unable to achieve the minimum level of economic well-being required for a certain standard of living. The number of poor people is measured as a percentage of the number of poor to the total number of people in each district on the island of Kalimantan.

Independent variables comprise the village funds, GRDP, government expenditure, and COVID-19. The Village Fund is a budget allocation derived from the government revenue and Expenditure (APBN), which is calculated at 72 percent based on the basic allocation ceiling, 3 percent based on the affirmation allocation ceiling, and 25 percent based on the formula allocation ceiling. The village fund is intended to support various activities, such as funding for the government, empowering the community, fostering the community, and encouraging development. These village funds are measured in billions of rupiah.

Gross Regional Domestic Product (GRDP) is the total value of goods and services produced by a region over a certain period, usually one year. The GDP data used in this study are GRDP on current prices for each district in the provinces of West Kalimantan, Central Kalimantan, East Kalimantan, South Kalimantan, and North Kalimantan. GRDP is measured in billions of rupiah.

Local government expenditure is the amount of money spent by local governments for the public interest. District government expenditures include costs for providing education and health facilities, payments for public/community services, salaries for civil servants, and expenditures for infrastructure development and other expenditures in each district in the provinces of West Kalimantan, Central Kalimantan, East Kalimantan, South Kalimantan, and North Kalimantan. Government expenditure is expressed in billions of rupiah.

COVID-19 is the COVID-19 pandemic. The COVID-19 pandemic was declared by the government as a non-natural national disaster in April 2020. COVID-19 has caused Indonesia's economic growth, including in Kalimantan, to experience negative economic growth in 2020. The government officially declared the end of the COVID-19 pandemic in 2022. The COVID-19 pandemic has increased poverty levels throughout Indonesia (Aji, 2022). COVID-19 is a dummy variable with a value of one during 2020-2022, while it is zero during 2015-2019

Results and Discussions

Descriptive Statistics

Table 1 presents summary statistics of the variables used in this study. The poverty rate variable measured by the percentage of poor people in districts on the island of Kalimantan, on average, was 6.61% with a standard deviation of 2.33%. The highest poverty rate was 13.51% in Banjar district in 2020, while the lowest poverty rate was 2.55% in Landah district in 2015. The average poverty rate in districts on the island of Kalimantan is still below the average poverty rate at the national level of 9.54% in March 2022. The average village fund was 108.85 billion with a standard deviation of 61.54 billion. The largest village fund was 348.60 billion in the Sintang district in 2020, while the smallest village fund was 9.54 billion in the Sukamara district in 2015. The average GRDP was 19.09 trillion with a standard deviation of 29.61 trillion. This standard deviation displays that the economic ability between districts on the island of Kalimantan varies greatly. The average government expenditure was 724.26 billion with a standard deviation of 640.21 billion. These findings show that there is a large variation in local government expenditure in districts on the island of Kalimantan.

Table 1. Summary statistics

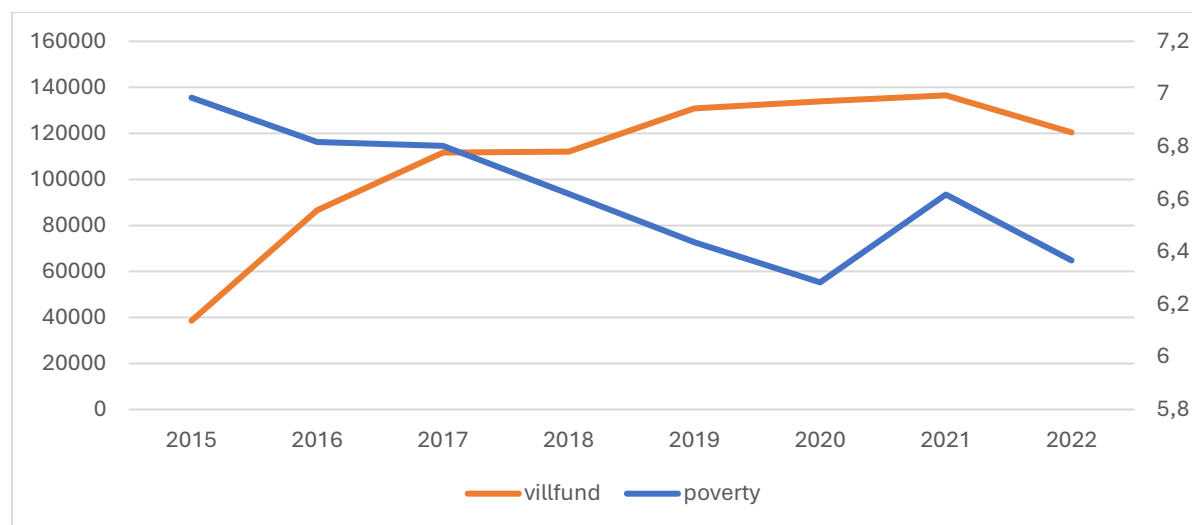
Variable	Obs.	Mean	Std. dev.	Min	Max
Poverty	376	6.6162	2.3370	2.5500	13.5100
Vfund	376	108.8537	61.5420	9.5471	348.6042
GRDP	376	19085.8400	29614.8500	1980.6230	240392.6000
Gov	376	724.2674	640.3068	11.1806	5475.9600
COVID-19	376	0.2500	0.4336	0.0000	1.0000

Source: Authors' calculation

Figure 1 illustrates the development of poverty rates and village funds in districts on the island of Kalimantan in the period 2015-2022. In 2015, the average poverty rate was 6.99% and there was a trend of decreasing the poverty rate to 6.28% in 2020. However, the existence of COVID-19 has raised the poverty rate to 6.82% in 2021. In 2015, the average amount of village funds was 38.55 billion, and there was an upward trend until 2021, during the COVID-19 period, of 136.52 billion. More importantly, there is a negative correlation between the poverty rate and the village fund of -0.81. The correlation coefficient suggests a strong negative relationship between village funds and the poverty rate in Kalimantan. This implies that the village funds can reduce the poverty rate in districts in Kalimantan.

Before discussing the regression results, this study calculates the correlation between the independent variables. The purpose of this correlation is to find out whether there is a multicollinearity problem in the panel regression model. If the correlation is above ± 0.85 , there is a strong correlation between the independent variables, so it is suspected that there is a problem of multicollinearity. Table 2 presents the results of the correlation between independent variables. From Table 2, there are two

correlations with values above 0.5, namely between government expenditure (Lgov) and COVID of 0.76, and between GRDP (LGRDP) and government expenditure (Lgov) of 0.61, while the other correlation is below 0.5. These findings show the absence of multicollinearity problems in our regression.



Source: Authors' calculation

Figure 1. Development of poverty and village fund in Kalimantan, 2015-2022

Table 2. Correlation matrix

	Poverty	LVfund	LPDRB	Lgov	COVID -19
Poverty	1				
LVfund	0.1169	1			
LGRDP	0.0617	0.4515	1		
LGov	0.0543	0.4552	0.6116	1	
COVID-19	-0.0307	0.1985	0.1703	0.7614	1

Source: Authors' calculation

Baseline regression

The discussion of the results began to discuss the influence of village funds on poverty on the island of Kalimantan as a baseline regression in this study. Table 3 presents the results of the static panel model estimation, which includes common effect (CE), fixed effect (FE), and random effect (RE). The results of the static panel method selection with the F test, LM test, and Hausman test are revealed at the bottom of Table 3. Following the F-test, BP test, and Hausman test, the results indicated that the random effect method was the most suitable for estimating the panel static regression in our model, as we failed to reject the null hypothesis of the Hausman test.

Table 3. Baseline results

Variable	CE		FE		RE	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
LVfund	0.351*	0.055	-0.153**	0.035	-0.220***	0.003
LGRDP	-0.187	0.195	-1.040***	0.000	-0.744***	0.000
LGov	0.635*	0.061	-0.053	0.302	-0.013	0.450
COVID-19	-1.002**	0.029	0.298**	0.026	0.168	0.127
Constant	-2.496	0.468	25.918***	0.000	21.369***	0.000
R-squared	0.023		0.205		0.202	
Observations	376					
No. District	47					
F-test	238.14***					
LM-test	1164.45***					
Hausman test	6.00					

Note: ***, **, and * denote significant at 1%, 5% and 10%, respectively.

Source: Authors' calculation

Based on the random effect method, Table 3 shows that the village fund has a negative sign and is statistically significant on the t-test with $\alpha=1\%$. These results show that village funds negatively affect the poverty rate on the island of Kalimantan. GRDP (LGRDP) is marked negatively and statistically significant, on the t-test with $\alpha=1\%$. These findings show that GRDP has a negative effect on the poverty level on the island of Kalimantan. Government expenditure (Lgov) is negative but not statistically significant. These funding documents show that government spending has no effect on poverty on the island of Kalimantan. COVID is positive but not significant. These results illustrate that COVID-19 has not been able to increase the poverty rate on the island of Kalimantan.

The findings of this study show that village funds, as the main variable in this study, negatively affect the poverty rate. This result implies that an increase in village funds can reduce the poverty rate on the island of Kalimantan. Village funds are funds provided by the central government to empower the rural economy (Ernawati et al., 2021). Through village funds, local governments can allocate village funds for infrastructure development, increasing rural economic activities such as BUMDES and other community empowerment programs (Arifin et al., 2020). These activities will certainly provide the potential for the community to increase income and community happiness, so that it will reduce the level of poverty in rural areas. The results of this study are in line with previous studies by Arham and Hatu (2020), Ernawati et al. (2021) and Anam et al. (2023)

GRDP negatively influences the poverty rate on the island of Kalimantan. These findings show that high economic growth will reduce poverty rates. High economic growth indicates an increase in the production of goods and services in a region. The increase in the production of goods and services absorbs a lot of labor, so unemployment in the area decreases (Widarjono, 2020). In addition, economic growth will increase the income level of the community in an area. Declining unemployment and increasing income will reduce the poverty rate in the region. The results of this study are in line with previous studies (Sigit & Kosasih, 2020; Aji, 2022)

Pengeluaran pemerintah bertanda negatif tetapi tidak signifikan. Artinya, pengeluaran pemerintah belum efektif menurunkan kemiskinan di kalimantan. Covid bertanda positif tetapi tidak signifikan. Temuan ini menunjukkan bahwa COVID dalam model ini tidak berpengaruh terhadap tingkat kemiskinan di Kalimantan.

Further Analysis: Village fund during Covid-19

The next discussion is to analyze whether village funds can reduce the poverty rate during the COVID-19 pandemic by interacting between the village fund and COVID-19, as shown in equation (2). The results are presented in Table 4. Table 4 presents the results of the estimation of the static panel model, which includes common effect (CE), fixed effect (FE), and random effect (RE). The bottom of Table 4 presents the results of the static panel method selection test using the F test, LM test, and Hausman test. Following the F-test, BP test, and Hausman test, the results revealed that the fixed effect method was the best for estimating panel regression. We selected the fixed effect because this study rejects the null hypothesis of the Hausman test.

Table 4. Village fund during COVID-19

Variable	CE		FE		RE	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
LVfund	0.257	0.135	-0.133*	0.059	-0.224***	0.003
Lfund*covid	0.594	0.121	-0.144*	0.070	-0.103	0.151
LGRDP	-0.189	0.192	-1.101***	0.000	-0.706***	0.001
LGov	0.616*	0.067	-0.057	0.288	-0.005	0.483
COVID-19	-7.862*	0.091	1.989**	0.043	1.343	0.128
Constant	-1.142	0.753	26.740***	0.000	20.681***	0.000
R-squared	0.0269		0.2102		0.2046	
Observations	376					
No. District	47					
F	238.15***					
LM	1162.27***					
Hausman	11.02*					

Note: ***, **, and * denote significant at 1%, 5% and 10%, respectively.

Source: Authors' calculation

Based on the fixed effect method, Table 4 shows that village funds are negative and statistically significant at $\alpha=1\%$. This finding is in line with the baseline results in Table 3. GRDP (LGRDP) is also negative and statistically significant, at $\alpha=1\%$. This finding is consistent with the baseline results in Table 3. Government expenditure (Lgov) is negative but insignificant. This result is also consistent with the previous findings in Table 3. COVID is a positive sign and statistically significant at $\alpha=5\%$. This result indicates that COVID-19 has increased the poverty rate on the island of Kalimantan. The interesting thing is that the interaction variable between village funds and COVID-19 is negative and significant at $\alpha=10\%$.

COVID-19 has increased the poverty rate on the island of Kalimantan. The COVID-19 pandemic was declared a national non-disaster in April 2020. To prevent the COVID-19 pandemic from spreading widely throughout Indonesia, the government implemented a nationwide lockdown policy in 2020. As a result, the production of goods and services has decreased, so in 2020, economic growth in all provinces of Kalimantan was negative. Economic growth increased in 2021 and 2022, but has not recovered to the levels before the COVID-19 pandemic. This decline in economic growth increases unemployment and lowers people's incomes, so that COVID-19 increases poverty levels in Indonesia, including in Kalimantan (Fitriani et al., 2020; Aji, 2022).

The increase in poverty during the COVID-19 pandemic certainly requires special government policy to reduce it. There have been many programs provided by the government to empower the community's economy so that poverty during the COVID-19 pandemic can be suppressed. However, the interesting thing is what about the village fund program that the government has run. Can this village fund reduce the poverty rate during the COVID-19 pandemic in the Island of Kalimantan? The results of the panel regression in Table 4 show that the interaction variable between village funds and COVID-19 (Lfund*Covid) is negative and significant. This interaction variable suggests that village funds during COVID-19 can increase the capacity of village funds to reduce poverty levels on the island of Kalimantan during the COVID-19 pandemic. These findings show that during the COVID-19 pandemic, village funds can be very effective in reducing the poverty rate on the island of Kalimantan. One of the implementations of village funds is in the form of Village Fund Direct Cash Assistance. Direct cash assistance likely meets daily basic needs during the COVID-19 pandemic (Utami et al., 2023) so it can prevent the poverty rate from increasing in Kalimantan. However, the impact of village funds on poverty reduction has not been optimal. Many studies show that village funds have not been used effectively to support the community's economy (Imawan & Purwanto, 2020; Dachi et al., 2023). Therefore, the transparency of village fund management needs to be increased (Harun et al., 2020).

Conclusions

This study analyzes the influence of village funds on poverty rates on the island of Kalimantan. In addition, this study also wants to investigate whether village funds are effective in reducing poverty levels during the COVID-19 pandemic. The results of the study show that village funds can reduce the poverty rate on Kalimantan Island. An interesting finding is that village funds can reduce poverty rates during the COVID-19 pandemic. High economic growth can also reduce the poverty rate on the island of Kalimantan. However, local government spending has not been effective enough in reducing poverty levels on the island of Kalimantan.

Village funds can reduce the poverty rate and are very helpful in preventing the increase in poverty rates during the COVID-19 pandemic in Kalimantan. Several important implications can be drawn from this study. First, the central government must increase village funds so it can reduce the poverty rate across regions. Second, although village funds can reduce poverty levels during COVID-19, the impact is not optimal because village funds are still not managed properly. Therefore, the transparency of village fund management needs to be increased to effectively encourage the regional economy and reduce the poverty rate in the regions.

This study investigated all districts in Kalimantan that received village funds from the central government from 2015 to 2022. Although this research began after the rollout of village funds in 2015, this study has not included the latest data. For this reason, further research needs to include the latest data so that it can fully capture the impact of village funds on poverty on the island of Kalimantan. In addition, future research should include other variables such as the quality of human resources as measured by the Human Development Index.

References

- Abdullah, R., Keuangan, K., Perbendaharaan, D., & Gorontalo, P. (2022). Pengaruh Dana Desa Terhadap Tingkat Kemiskinan di Gorontalo. *Jambura Economics Education Journal*, 4(2), 165–176.
- Aji, Y. I. T. (2022). The Effect of Village Income and Gross Regional Domestic Product on Poverty in Indonesia. *Jurnal Bina Praja*, 14(2), 315–328. <https://doi.org/10.21787/jbp.14.2022.315-328>
- Anam, C., Plaček, M., Valentinov, V., & Del Campo, C. (2023). Village funds and poverty reduction in Indonesia: new policy insight. *Discover Global Society*, 1(1), 1–14. <https://doi.org/10.1007/s44282-023-00016-6>
- Arham, M. A., & Hatu, R. (2020). Does Village Fund Transfer Address the Issue of Inequality and Poverty? A Lesson from Indonesia*. *Journal of Asian Finance, Economics and Business*, 7(10), 433–442. <https://doi.org/10.13106/jafeb.2020.vol7.no10.433>
- Arifin, B., Wicaksono, E., Tenrini, R. H., Wardhana, I. W., Setiawan, H., Damayanty, S. A., Solikin, A., Suhendra, M., Saputra, A. H., Ariutama, G. A., Djuned, P., Rahman, A. B., & Handoko, R. (2020). Village fund, village-owned-enterprises, and employment: Evidence from Indonesia. *Journal of Rural Studies*, 79, 382–394. <https://doi.org/10.1016/j.jrurstud.2020.08.052>
- Azhari, A., Yusuf, M., Kamaruddin, K., & Fadly, F. (2022). Are Village Fund and Village-Owned Enterprises Crucial in Eradicating Poverty in Indonesia. *Jurnal Ekonomi Dan Bisnis Jagaditha*, 9(2), 132–138. <https://doi.org/10.22225/jj.9.1.2022.132-138>
- Dachi, T., Yoserizal, Y., & Putera, R. E. (2023). Effectiveness of Using Village Funds during the Covid-19 Pandemic (Case Study in Hiligeho Village, Tanah Masa Subdistrict, Regency South Nias). *JPSI (Journal of Public Sector Innovations)*, 8(1), 29–44. <https://doi.org/10.26740/jpsi.v8n1.p29-44>
- Daforsa, F., & Handra, H. (2019). Analysis of village fund management in poverty alleviation at Pasaman Regency, West Sumatra. *Jurnal Perspektif Pembiayaan Dan Pembangunan Daerah*, 6(6), 2355–8520.
- Ernawati, E., Tajuddin, T., & Nur, S. (2021). Does government expenditure affect regional inclusive growth? An experience of implementing village fund policy in Indonesia. *Economies*, 9(4), 1–12. <https://doi.org/10.3390/economies9040164>
- Faharuddin, F., & Endrawati, D. (2022). Determinants of working poverty in Indonesia. *Journal of Economics and Development*, 24(3), 230–246. <https://doi.org/10.1108/JED-09-2021-0151>
- Fitriani, D., Shauki, E. R., & Pratiwi, S. C. (2020). Village fund accountability and gendering in Masculine Hegemonic Institution: A study during COVID-19. *ASEAN Journal of Community Engagement*, 4(2), 386–415. <https://doi.org/10.7454/ajce.v4i2.1106>
- Hariyanto, A., Juanda, B., Rustiadi, E., & Mulatsih, S. (2023). The Effectiveness of Village Funds in Alleviating Rural Poverty: A Case Study of Belitung Regency. *MIMBAR: Jurnal Sosial Dan Pembangunan*, 39(1), 197–208. <https://doi.org/10.29313/mimbar.v39i1>
- Hartojo, N., Ikhsan, M., Dartanto, T., & Sumarto, S. (2022). A Growing Light in the Lagging Region in Indonesia: The Impact of Village Fund on Rural Economic Growth. *Economies*, 10(9). <https://doi.org/10.3390/economies10090217>
- Harun, H., Graham, P., Kamase, H. P., & Mir, M. (2020). A Critical Analysis of the Impacts of Financial Literacy and NPM on Village Funds Initiative in Indonesia. *International Journal of Public Administration*, 44(4), 336–345. <https://doi.org/10.1080/01900692.2020.1722165>
- Hilmawan, R., Aprianti, Y., Vo, D. T. H., Yudaruddin, R., Bintoro, R. F. A., Fitrianto, Y., & Wahyuningsih, N. (2023). Rural development from village funds, village-owned enterprises, and village original income. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(4), 1–11. <https://doi.org/10.1016/j.joitmc.2023.100159>

- Imawan, S. A., & Purwanto, E. A. (2020). Governing Village Fund in Indonesia: Is It eradicating Poverty? *Policy & Governance Review*, 4(3), 14–27. <https://doi.org/10.30589/pgr>
- Kurniawati, S., & Lestari, N. (2024). Does Economic Openness Impact of the Economy on Kalimantan? *Jurnal Ekonomi Bisnis Dan Kewirausahaan*, 13(3), 294–310. <https://doi.org/10.26418/jebik.v13i3.71601>
- Lubis, M. Z. M., & Dahraini, A. S. (2018). An Analysis of Fiscal Intervention toward poverty (A Case Study of Village Fund of Kalimantan Islands). *Jurnal Imara*, 2(1), 23–38.
- Manurung, J., Gunarto, T., & Aida, N. (2023). The Effect of Village Funds, Labor, and Gross Regional Domestic Product (GDP) on Poverty in Lampung Province. *SULTANIST: Jurnal Manajemen Dan Keuangan*, 11(1), 33–34. <https://sultanist.ac.id/index.php/sultanist>
- Oktavia, R., & Wihastuti, L. (2020). Village Fund and Poverty Alleviation in Kulon Progo Regency. *Jurnal Kebijakan Dan Administrasi Publik*, 24(1), 2020. <https://journal.ugm.ac.id/jkap>
- Permatasari, P., Ilman, A. S., Tilt, C. A., Lestari, D., Islam, S., Tenrini, R. H., Rahman, A. B., Samosir, A. P., & Wardhana, I. W. (2021). The village fund program in indonesia: Measuring the effectiveness and alignment to sustainable development goals. *Sustainability*, 13(21), 1–30. <https://doi.org/10.3390/su132112294>
- Rosalina, D. I., & Nuryadin, M. R. (2020). Dana Desa dan Tingkat Kemiskinan di Kabupaten Banjar. *JIEP: Jurnal Ilmu Ekonomi Dan Pembangunan*, 5(2), 756–772.
- Roy, J., Bahrudin, H., & Hasid, Z. (2024). The Influence of Village Funds and Allocation of Village Funds And Financial Assistance on Poverty Alleviation In East Kalimantan Province. *International Journal of Management Research and Economics*, 2(3), 13–26. <https://doi.org/10.54066/ijmre-itb.v2i3.1855>
- Septriani, S. (2023). The Impact of Village Fund Allocation on the Economic of Bengkulu Province, Indonesia. *ISAR Journal of Economics and Business Management*, 1(6), 31–35. <https://isarpublisher.com/journal/isarjebm>
- Sigit, T. A., & Kosasih, A. (2020). Pengaruh Dana Desa terhadap Kemiskinan: Studi Tingkat Kabupaten/Kota di Indonesia. *Indonesian Teasury Review: Jurnal Perbendaharaan, Keuangan Negara Dan Kebijakan Publik*, 5(2), 105–119.
- Sutresno, S., Rustiadi, E., & Indraprahasta, G. S. (2023). The Spatial Pattern of Poverty and It's Alleviation Strategy through The Village Fund Policy. *International Journal of Economics Development Research*, 4(1), 343–354.
- Utami, R. M., Indiahono, D., & Noviko, S. (2023). The Impacts of Village Fund Direct Cash Assistance Distribution Implementation during the COVID-19. *Jurnal Kawistara*, 13(2), 157–169. <https://doi.org/10.22146/kawistara.77794>
- Widarjono, A. (2020). Asymmetric okun's law in an emerging market: Asean-3 case. *Economics and Sociology*, 13(3), 203–217. <https://doi.org/10.14254/2071-789X.2020/13-3/12>