



THE EFFECT OF CAPITAL EXPENDITURE, AGRICULTURAL SECTOR CONTRIBUTION, AND EDUCATION ON THE POVERTY RATE

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ABSTRACT

This study examines the impact of capital expenditures, education, and the contribution of the agriculture sector on poverty level. The research employs a quantitative approach using panel data regression model, specifically the Fixed Effect Model (FEM) regression. The findings indicate that the agriculture sector contribution has a significant negative impact on poverty level. This result is consistent with the economic structure in most districts of Indonesia, notably in The West Kalimantan Province, where the agricultural sector is a key economic driver and the largest employer. This should be a consideration for the government to make the agricultural sector as a strategic sector in alleviating poverty. Conversely, capital expenditure does not significantly affect the poverty rate, likely due to the reliance on capital-intensive technologies in government projects. Similarly, the education variable has no significant effect, as the mean years of schooling in West Kalimantan Province indicate that most of the population has only attained a junior high school level of education. This underscores the need for the government to reform the education and training systems to foster improved human capital development. Strengthening the agricultural sector and increasing educational outcomes are critical strategies for reducing poverty in the region.

Keywords: Capital Expenditure; Agricultural Sector Contribution; Education, Poverty Rate

JEL Classification: I32, I38, I25, H53

HOW TO CITE:

Restiatun, Bustami, & Andhika, P. D., (2024). The effect of capital expenditure, agricultural sector contribution, and education on the poverty rate. *Indonesian Treasury Review: Jurnal Perbendaharaan, Keuangan Negara dan Kebijakan Publik*, 9(4), 267-276.

INTRODUCTION

In 2023, 18% of the world's population across 110 countries was reported to experience acute multidimensional poverty (UNDP, 2023). Poverty alleviation remains the first goal of the 2030 Sustainable Development Goals (SDGs) agenda. Despite significant focus on poverty reduction, by 2022, approximately 1.3 billion individuals (22% of the global population) in 107 developing countries were still living in multidimensional poverty (Liu et al., 2021). According to

(International Monetary Fund (IMF), 2000), the government needs to determine priorities in implementing poverty alleviation programs. These priority sectors include the social sector (primary education, health, drinking water, and sanitation) and rural development (agriculture, livestock breeding, agricultural water works, and rural roads). All government expenditure in these sectors are typically classified under capital expenditure.

One target of Indonesian national planning is reducing the poverty rate, and it should be

implemented comprehensively and involve the coordination of all parties (Kementerian PPN/Bappenas, 2016). In general, poverty alleviation programs in Indonesia are divided into four groups: Social Assistance and Security Programs, Community Empowerment Programs such as the National Program for Community Empowerment (*PNPM*), Empowerment Programs for Micro, Small, and Medium Enterprises (*MSMEs*), and Pro-People Programs.

According to Indonesia's Central Bureau of Statistics (2020), from September 2020 to March 2021, Indonesia's poverty rate slightly declined from 10.19% to 10.14%, this rate is still higher than it was before the COVID-19 pandemic (9.2%) in September 2019. Over the last two decades, poverty has decreased in Indonesia from more than 60% to 9.22% of the Indonesian population classified as poor in September 2019.

Poverty alleviation has consistently been a central agenda in development policies. The government's role is crucial in addressing poverty, particularly through the utilization of government spending instruments (Muliati et al., 2019). Government spending is expected to increase production capacity, improve the welfare of the population, and create direct programs for underdeveloped areas. Capital Expenditure represents a key component of government investment, aimed at developing public facilities and infrastructure projects. However, the findings of Omodero (2019) indicate that sectoral expenditures in the agriculture, health, and education are not significant in alleviating poverty in Nigeria due to insufficient available funds to finance these sectoral expenditures. The education spending variable in the two studies is proxied by the amount of government funding for the education budget and not by using the output of the education budget. This estimation is biased because government expenditure on the education sector does not directly affect poverty, but outcomes such as the mean years of schooling will increase people's knowledge.

In this research, the agricultural sector is proxied by government spending on the agricultural sector, including expenditure on irrigation infrastructure and related projects. However, this variable is found to have no direct effect on poverty alleviation. To better analyze the influence of the agricultural sector, it is more appropriate to utilize the contribution of the agricultural sector to Gross Regional Domestic Product (*GRDP*). This variable provides a clearer representation of the income earned by individuals employed in the agricultural sector. The greater their income, the lower the poverty, especially among farmers. However, Anderson et al. (2018) found contrasting findings concerning the relationship between government spending and

APPLICATIONS FOR PRACTICE

- This research examined the substantial effect from capital expenditure, agricultural sector contribution, and mean years of schooling on poverty rate.
- The effect from agriculture sector contribution on the poverty level
- is negative significant.
- The government should to be consistent in improving the accessibility of education to provide equal access and quality of education services, especially for poor households.

poverty alleviation. In low- and middle-income countries as well as in developing countries, a negative relationship is found between government spending and poverty alleviation, but in Sub-Saharan African countries, a negative relationship is found but with a smaller magnitude compared to East Asian countries and Central Asia.

The increase in public spending is expected to directly generate additional incomes for some poor households that include directly in some government projects, and they will generate additional incomes for all communities through the income-expenditure multiplier process (Demery, 2000). Sasmal & Sasmal (2016) found that the infrastructure expenditure by the government positively affects poverty alleviation. On the other side, it is unclear how much this capital investment has contributed to improving the living conditions and poverty status of households (Ruch & Geyer, 2018).

According to Fan et al. (2004), there are three channel mechanisms for the influence of government spending on poverty alleviation efforts. Inflation and unemployment are targeted as channels from macroeconomic effects, the incidence of expenditure as channels from primary income effects, and transfer effects such as cash transfers to the poor as channels from the beneficiaries. However, those government projects often have unexpected effects, depending on the type of project. Government spending through providing cash transfers to the poor (*PKH funds*) (Waluyo & Khoirunurrofik, 2021) and Funds Village (*Sigit & Kosasih, 2020*) has a significant effect on poverty alleviation in Indonesia. This may be due to the mechanism of the production process.

World Bank (2023) accounted that more than 25% of GDP in some least developing countries is contributed by the agriculture sector, so this sector is also crucial for economic growth. This fact should be the basis that the agricultural sector development is a strategic plan to improve the welfare of farmers and poverty alleviation. Volatility in prices of agriculture commodities since the early 2000s has led policymakers to pay

attention to the effect of inflation on farmer welfare and they should update their policies (McCormack, 2015; Qodri et al., 2022).

The increasing contribution of the agricultural sector can trigger a decrease in the poverty rate, and vice versa (Harahap & Lindawati, 2022; Hermawan, 2012). World Bank (2022) states that as demand for more diversified and higher value products increases, it presents a huge opportunity and complex challenges for Indonesia's agri-food sector, at the same time, this sector needs to be navigated. Almost half of Indonesian farmers are smallholders whose average earnings are US\$3.2 per day, and they are vulnerable to climate shocks. Approximately 10% of agricultural households are female-headed and own smaller landholding sizes compared to men, and they represent 24% of farmers. This is what causes the non-agricultural sector development to be more effective than the development of the agriculture sector in alleviating poverty programs.

Education is often considered as a door to better career opportunities, to alleviate poverty, and to break the cycle of poverty (Liu et al., 2021; Yani et al., 2022). The higher the level of education, the lower the probability of being included in unemployment and poor household groups. Individuals with higher education generally have the opportunity to find jobs with higher incomes than individuals with lower education. Poverty will be reduced if investment in education is implemented comprehensively, including among low-income communities (Mankiw et al., 1992). However, findings from Zohar et al. (2022) in EU countries state that there is no relation between education level and poverty rate. This may be due to the increase in education not being followed by the provision of jobs following the higher level of public education. If this is not done then it makes sense when the level of education does not affect the level of poverty.

Several previous studies, Anderson et al.

(2018) and Waluyo & Khoirunurrofik (2021), did not differentiate between capital expenditure and routine expenditure. In fact, these two expenditures have very different impacts on poverty alleviation programs. Government spending will directly affect the beneficiaries, but capital spending will affect it indirectly and it will take a relatively long time for its effects to be felt. Based on the background presented, it is interesting to investigate the relationship between government capital expenditure, the agricultural sector contribution, the mean years of schooling, and the poverty level.

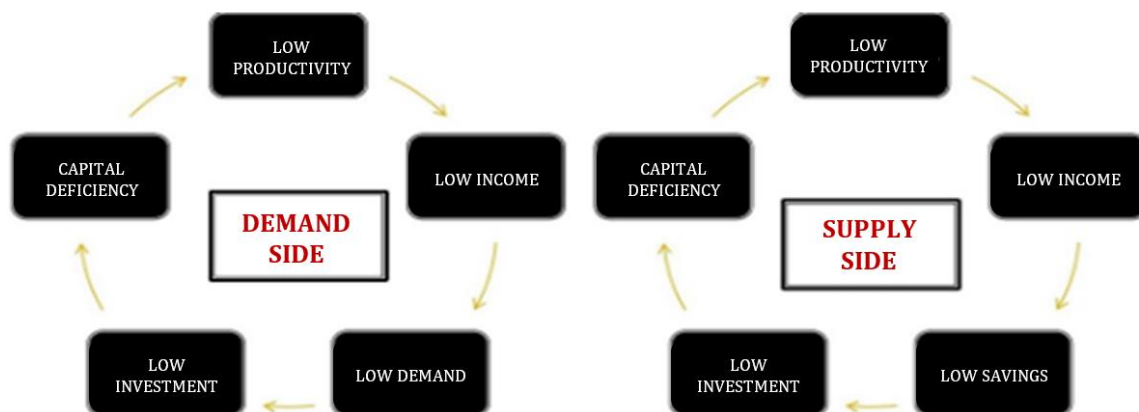
LITERATURE REVIEW

Human development is more than just poverty alleviation, but even so, poverty alleviation is still the main concern of human development programs. The success of these programs is determined by their success in reducing the proportion of the poor and the intensity of poverty. Poverty is not only seen as the inability to meet the minimum living standard, the other hand that poverty is only measured by consumption, but poverty in a broader sense also considers the dimensions of education, health, housing, sanitation facilities, social relations, and the level of participation which will determine the standard of living (Human Development Report, 2010).

According to the Vicious Circle Theory of Poverty developed by Nurkse (1953), poverty pivots on an endless circle of needs/vicious circle, market distortions (market imperfections), capital deficiency, and underdeveloped human resources, all of which result in low productivity then leads to a decline in income, and causes a deficiency in investment and savings. If income continues to decline, it leads to poverty due to insufficient income to meet basic life needs. Figure 1 shows the Vicious Circle of Poverty proposed by Nurkse (1953).

One of the causes of labor's low productivity is poor health status (Yani et al., 2022). A good public

Figure 1 The Vicious Circle of Poverty proposed by Nurkse (1953)



Source: Nurkse (1953)

healthcare system is needed to achieve a high level of public health. The public health care system must be designed in such a way that can decrease poverty levels through its influence in increasing public health, income distribution, and public services as well as decreasing unemployment (Buck & Jabbal, 2014). If this cannot be realized, it is very likely that a "health-poverty trap" will occur. Poor household groups will have low health levels, resulting in low productivity and low opportunities to enter the labor market. Furthermore, they will have low wages or even become unemployed with zero income, and as a result, they will survive in conditions of poverty.

The provision of public services, in general, requires government funds through the government spending sector. Capital expenditure is designed to improve community welfare by improving service to meet the demands of growing needs and as a result, it will increase the community's ability and grow the regional economy. This means that the public sector's budget mainly contributes to increasing economic activities to reduce poverty and improve people's welfare (Mardiasmo, 2002). Capital expenditure includes spending on land, equipment, machinery, buildings, construction, roads, irrigation, and networks, as well as other fixed assets. Because the useful life is more than one fiscal year, often the effect of government spending on poverty alleviation sometimes cannot be directly received by the community soon after the expenditure is made. There is a large amount of government capital expenditure that will further reduce poverty levels, but for the impact to be felt by the community, it will take time.

Most of the poor people in the world live in rural areas and they are farmers (Abro et al., 2014) so agriculture is a potential economic sector. Moreover, efforts to develop the agricultural sector are strategic steps to reduce poverty. The agricultural sector has a significantly negative relationship with poverty alleviation through employment, increasing labour productivity, and industrial processing of agricultural commodities. The agricultural sector in Indonesia absorbs the most labor and can reduce poverty (Hermawan, 2012). The higher contribution of the agricultural sector shows that there are more workers involved in this sector or an increase in the income of workers working in this sector. This will certainly have an impact on reducing poverty.

According to the outlook for the Indonesian Agricultural Economy in 2021, the agricultural sector is projected to grow by 3.30% up to 4.27%. Around 43% of the population in Indonesia live in rural areas and close to 29% of the Indonesian workforce work in the agriculture sector. It accounted for 13.7% of GDP in 2020 was from primary agriculture production. Sectors such as

Agribusinesses, input for agriculture, comprising, processing for agriculture products, trading for agriculture commodities, agro-logistics, food retail, and wholesale, employ significant workforces in both the manufacturing and services sectors. They are the main tool to meet the increasing demand for food and agro-industrial products, particularly amid the threat of food insecurity (World Bank, 2022). However, the availability of land is so limited and the size is too small for farmers, limiting how much they can be grown and the per capita income from the agriculture sector is insufficient to allow people to move above the poverty line.

There are tendencies that poor and underdeveloped countries depend on the subsistence agriculture sector, traditional production methods, and environmental ignorance. Regions with agriculture-based economies tend to have higher poverty rates. The purchasing power of farmers/farmers' welfare will increase if the price of farmers' commodities is greater than the increase in the price of the goods purchased; hence, the farmers' purchasing power is determined by the farmers' terms of trade for their commodities. Decreasing the farmer's term of trade, despite the increase in the quantity of agricultural production, may not affect poverty alleviation. End Poverty's programs on sustainable agriculture have grown in scale and scope year on year. Growth in the agriculture sector is two to four times more effective in generating incomes among the poorest compared to other sectors (World Bank, 2023). End Poverty nurtures and motivates farmers to adopt best practices in the following ways, namely sustainable farming, development of value chain for agriculture commodities, promotes less water-consuming crops, building capacities to adopt climate-resilient farming techniques, provides for good quality inputs, providing soil health management services, and organizes exposure visits to agricultural universities, to build the farmers' capacities on modern agricultural techniques.

Human capital is necessary to effectively utilize physical and natural capital, as well as technology and skills. Individual education is very important in a country's ability to absorb adequate technology to increase economic capacity. However, there is an interrelated relationship between education and poverty level. A way to think about the relationship between educational attainment and poverty is by looking at how the distribution of people in poverty by their level of education compares to the whole population (Carmen & Proctor, 2015). Children born into poverty are usually poorly prepared or not prepared at all for school. It means there is a simultaneous relationship between poverty and educational attainment. The Indonesian

government through various education policies, for example through *BOS* (School Operational Assistance) program or *KIP* (Indonesia Smart Cards) program, has provided opportunities for children from poor households to attain free education. The mean years of schooling reflect the level of formal education taken by the residents of an area. The mean length of schooling is the average years used by the population aged 25 years and over, at all levels of formal education. Employment opportunities in the modern sector are based on education level and a person's income level has a direct relationship to the education level. The length of a person's education will have positively affected the income level. The longer the time individuals spend on education, the greater their chances of getting a job with a good income, and the next stage will reduce the poverty level.

RESEARCH METHODOLOGY

This research uses a quantitative approach, utilizing panel data consisting of 14 cross-sections and a five-year time series. Because the data used in this research is panel data, the appropriate analytical tool to use is the panel data regression model.

In 2019, West Kalimantan Province had a poverty rate of 7.49%, which is lower than the national poverty level (9.22%). However, there are still some areas where the poverty level is higher than the national poverty level, for example, Melawi Regency with a poverty rate of 12.38% (Indonesia's Central Bureau of Statistics, 2020). This makes West Kalimantan Province attractive to serve as an object of research.

The objects of this research were 14 regencies/cities in The West Kalimantan Province. This study uses the five-years period (2015 - 2019) secondary data which were obtained from Indonesia's Central Statistics Agency (*BPS, 2022*) publication and from Indonesia's Directorate General of Fiscal Balance (*DJPK, 2020*) periods 2016 - 2020.

The contribution from the agriculture sector in West Kalimantan Province increases yearly (Indonesia's Central Bureau of Statistics, 2021). Ketapang District contributed the most to the agricultural sector compared to other districts, but its poverty rate was among the highest (number 3). Meanwhile, Sanggau Regency made the second-highest contribution to the agricultural sector, and it had the lowest poverty rate among other Regencies/Cities. Research by Hayat et al. (2019) uses the agricultural sector income growth variable to proxy the contribution of the agricultural sector.

The longer time an individual takes in the educational process will increase his knowledge and skills. Research by Yani et al. (2022) uses the average length of schooling variable as a proxy for

the educational process that will increase individual knowledge. The mean years of schooling in West Kalimantan increased from 2015 to 2019. In 2019 it was 7.31 years. It means that the population of West Kalimantan—mainly only graduated from elementary school and did not graduate from junior high school. The City of Pontianak has the highest value for the mean years of schooling, which was 10.14 years in 2019, meaning that the average population of Pontianak City had completed nine years of basic education.

The dependent variable in this research includes the level of poverty (*Pov*). Meanwhile, the independent variables in this research include Capital Expenditure, Mean Years of Schooling, and the Agricultural Sector contribution in Regencies/Cities in The West Kalimantan Province. Poverty is seen as an economic inability to meet basic food and non-food needs as measured in terms of expenditure. Residents are categorized as poor if they have an average monthly expenditure per capita below the poverty line (Indonesia's Central Bureau of Statistics, 2022). In this research, Poverty referred to the number of poor households in all districts/cities in The West Kalimantan Province during 2015 - 2019. The unit of this variable was measured in percentage.

Mean years of schooling (*MYS*) is defined as the number of years of study of the population aged 15 years and over who have completed formal education (Indonesia's Central Bureau of Statistics, 2022). In this research, Mean Years of Schooling referred to Mean years of schooling for each district/city in The West Kalimantan Province during 2015 - 2019. The unit of this variable was measured in years.

Capital expenditures are budget expenditures for acquiring fixed assets and other assets that benefit more than one accounting period. In this research, Capital Expenditures (*CE*) referred to the amount of government capital expenditure in all districts/cities in The West Kalimantan Province during 2015 - 2019. The unit of this variable was measured in Billion IDR.

According to Indonesia's Central Bureau of Statistics (2021), the contribution of the agricultural sector is an indicator measuring developments in the agricultural sector. In this research, Agricultural Sector Contribution (*ASC*) referred to the amount of GRDP in the agricultural sector based on constant prices in all districts/cities in The West Kalimantan Province during 2015 - 2019. The unit of this variable was measured in Billion IDR.

The data were analyzed using the regression analysis method with the Pooled Least Square model because the data in this study uses panel data. This model was chosen because panel data has several advantages over time series data and cross-section data (Baltagi, 2005). The estimation

equation in this study was formulated as follows:

$$Pov_{it} = \alpha + \beta_1 CE_{it} + \beta_2 ASC_{it} + \beta_3 MYS_{it} + e_{it} \dots (1)$$

Where:

Pov = poverty level

CE = Capital Expenditure

ASC = Agriculture Sector Contribution

MYS = Mean Years of Schooling

e = error term

i = represent cross section

t = represent time series

Data were processed using three panel data models, including the common effect, the fixed effect, and random effect model (see (Puspitasari et al., 2023)).

RESULTS AND DISCUSSION

Before testing using three-panel models, a data validity test was carried out, which included a normality test and a classical assumption test. Based on the test results, it can be decided that the data passes all the tests. The estimation results with the three-panel data models are presented in Table 1.

This research uses panel data regression analysis. The selection of the panel data regression model was carried out using three test tools, namely the Chow test, Hausman test, and Lagrange Multiplier (LM) test, to determine the best estimation method between Common Effect, Fixed Effect, and Random Effect model. Using the Chow test at the 5% confidence level, it shows that the prob. value of the chi-square cross-section of 0.0000 is lower than the 0.05 alpha value. Therefore, we can conclude that based on the result from the Chow test, the fixed effect model is better used to estimate the panel data regression in this study compared to the common effect model. This shows differences in the behavior of the research variables both across time and between cross-sections. Furthermore, with the Hausman test, the random cross-section value of 0.0027 is lower than the Alpha of 0.05. Therefore, it can be concluded that in this Hausman test, the fixed effect model is more appropriate to use to estimate the panel data regression in this study than the random effect. Based on the results of the Chow Test and Hausman Test, it is suggested, that the best model is the fixed effect. Table 2 shows the Fixed Effect Model estimation values of the constant and coefficients.

The regression results from the estimates carried out will provide an overview of the relationship between capital expenditure, agricultural sector contribution, and average length of schooling in poverty. With significance level $\alpha = 1\%$, the constant value is 11.38612, which means that the magnitude of poverty in West Kalimantan Province without the influence of the variables average length of schooling, government expenditure, and contribution from the

Table 1 Estimation Results with Common Effect, Fixed Effect, and Random Effect Models

	Common Effect	Fixed Effect	Random Effect
Cons	17.00932 (7.270459)	11.38612 (6.222396)	12.86455 (7.784747)
CE	0.014765* (4.864952)	0.000721 (1.369729)	0.000790 (1.505117)
ASC	-0.000484* (-2.123292)	-0.000731* (-2.731359)	-0.000454* (-2.171528)
MYS	-1.815763* (-5.040344)	-0.291578 (-0.931138)	-0.590029* (-2.325416)
F Stat	10.85851	387.7130	6.827256
R ²	0.330463	0.991529	0.236833

Source: Processed by author

Note* denote significantly at $\alpha = 5\%$

Table 2 Estimation Results with Fixed Effect Model

Variable	Coeff.	t-Stats.
Constant	11.38612	6.222396
CE	0.000721	1.369279
ASC	-0.000731	-2.731359*
MYS	-0.291578	-0.931138
R ²	0.991529	
Adjusted R ²	0.988971	
F Statistic	387.73130	
Prob (F - stats.)	0.000000	

Source: Processed by author

*Denote significantly at $\alpha = 1\%$

agricultural sector is 11.38612%, ceteris paribus. Meanwhile, the coefficient of the contribution variable for the agricultural sector is -0.000731, which means that if there is an increase in agricultural sector income of 1 billion IDR, it will reduce poverty by 0.0731%. The small magnitude of influence of the agricultural sector may be due to not all districts/cities in West Kalimantan province being regions with agriculture as the leading economic sector.

From the estimation results above, it can be seen that there is no relationship between capital expenditure and the poverty rate in the Regencies/Cities in The West Kalimantan Province in five years (2015 -2019). This may be due to using capital-intensive technology being higher than labor-intensive technology in infrastructure projects, in addition to infrastructure development being carried out more in cities than in districts, while district poverty rates are relatively higher than urban poverty rates. This may also be due to the fact that government projects do not directly involve workers from poor household groups, so the benefits of the projects in the form of increased income for the poor do not occur. In addition, often this government capital expenditure needs enough time for the benefits to be felt by the community, especially the poor. So often, when the government increases its capital expenditure, at the same time, the people do not feel the benefits.

One type of investment from government expenditure that will have a high multiplier effect

toward the increase in RGDP is Capital expenditure (DJPK Kementerian Keuangan RI, 2013). Sigit & Kosasih (2020) and Waluyo & Khoirunurrofik (2021) found that government spending has a negative effect on the poverty rate. Government spending policy is part of the fiscal policy and is a form of government intervention in the economy. The findings of this research contradict Waluyo & Khoirunurrofik (2021) research which shows government expenditure specializes in government expenditure through the provision of PKH funds, while this research specializes in capital expenditure by the government for infrastructure. Capital expenditures will directly impact the poor if the government allocates capital expenditures in the form of infrastructure development involving the surrounding community, especially rural communities because most of Indonesia's poor people live in villages (Abro et al., 2014). Meanwhile, there is a fact that rural communities in Indonesia, generally included in the poor category in Indonesia's Central Bureau of Statistics (2020), have not been touched by government projects. Therefore, local governments need to make real and structured efforts to create regional budgets driven by the public interest.

The agricultural sector has the potential to be a reliable sector, especially concerning poverty alleviation, because most poor people depend on the agricultural sector for their livelihood. Efforts to reduce poverty need to be increased in the agricultural sector. The low investment capacity of farmers, fund dependency, farmer dependency, and failure to meet farmers' basic needs are some of the causes of farmer poverty (Satriawan & Oktavianty, 2012). This research is in line with Hayat et al. (2019) research in Pakistan where there are similarities in the variables used to proxy the contribution of the agricultural sector, namely agricultural sector income. However, the values used differ in Hayat et al. (2019) research using agricultural sector income growth (in %), while this research uses the total value of agricultural sector income (in billions of Rupiahs).

The findings from this research are in line with some previous research by Hermawan (2012), and the finding from this study is the contribution of the agricultural sector has a significantly negative effect on the poverty rate in the Regency/City of West Kalimantan Province in five years (2015-2019). This proves that the findings of this study align with Hermawan (2012) who said that the agricultural sector has a greater impact on poverty in rural areas than in cities. This is because most of the farmers live in rural areas. An increase in farmer's terms of trade can also be used as a policy tool in poverty reduction strategies, especially in rural areas.

Another thing that needs to be paid attention to is that the stability of agricultural commodity prices needs to be maintained, especially during the harvest season, bearing in mind that the demand for agricultural commodities is an inelastic demand for income levels. When the agricultural sector has become one of the priority sectors in poverty alleviation efforts, there will be an increase in the contribution of the agricultural sector to the regional economy so that the sector will then be able to contribute to reducing the poverty rate. However, Arham (2020) found that the agriculture sector does not affect the poverty rate. This may be because this variable is proxied by the government financing the agricultural sector, for example, through the provision of tractors. Meanwhile, this financing is usually only enjoyed by landowners, not farm workers. Meanwhile, sharecroppers or agricultural laborers dominate the agricultural sector's poverty.

The contribution of the agricultural sector has increased every year in The West Kalimantan Province since 2019 - 2021, but the workforce absorbed by this sector has decreased in the same periods. This could mean that there has been a transformation of the economy to other sectors. Despite the decline in the workforce, the agricultural sector has survived and even has increased its productivity by adopting technological developments and optimal allocation of resources. When there is a decrease in labour absorbed in the agricultural sector while income in this sector increases, there is an increase in per capita income for workers in this sector, and there is a reduction in poverty among households working in this sector. This is in line with the policy stated in one of the missions of the RPJMD (The Regional Medium-Term Development Plan), namely accelerating the downstream process by strengthening the synergy between the agricultural sector in a broad sense and the mining sector with the manufacturing sector. Another point to note is disguised unemployment in the agricultural sector. Because the contribution of the agricultural sector to GRDP can increase, but because the number of workers working in the agricultural sector is more than the required level of economy of scale, what will happen is a decrease in income for workers working in the agricultural sector and increasing in poverty for agriculture workers.

Education is a tool that can break the chain of poverty. The Government of Indonesia is mainly focused on poverty alleviation and improving the quality of education through a Program of nine years of compulsory education. Yani et al. (2022) and Liu et al. (2021) found that the mean years of schooling had significantly negatively affected the poverty level. The findings of this research are in line with two previous research but contradict

Omodero's (2019) finding. The possibility of getting out of poverty consistently increases with increasing levels of community education. The quantity and quality of knowledge obtained by individuals are determined by the length of time they have attended school, because the length of school will determine the level of formal education undertaken. The mean years of schooling in The West Kalimantan Province are still below the national mean years of schooling. The Provincial Government of West Kalimantan needs to consistently improve the accessibility of education to provide equal access and improve the quality of education services.

However, the findings of this study indicate that the mean years of schooling had no effect on the poverty rate in the districts/cities of West Kalimantan Province. This may be due to uneven access to educational facilities, especially for poor households. The longer the mean years of schooling, the more knowledge the community has, leading to increased community productivity. Higher productivity will increase opportunities for individuals to earn higher incomes, and in aggregate, this will accelerate poverty alleviation efforts. The finding from this research contradicts with finding from Zohar et al. (2022) in EU countries. The finding from this research is there is no relationship between education and poverty rate. This difference may be due to differences in educational characteristics in developing and developed countries, where the education system in developing countries still focuses on basic education. In addition, the data used in Zohar et al. (2022) research is data on the respondent's highest education and is primary data from the survey questionnaire, while the data in this study uses secondary data, namely mean years of schooling.

Based on the value of F-statistical Probability, it can be said that all independent variables are significant regressors for the poverty rate in the districts/cities in The West Kalimantan Province in 2015-2019. As for the coefficient of determination R^2 , it is known that 98.90% of the variation in the poverty rate can be explained by variations in the capital expenditure (CE), the agricultural sector contribution (ASC), and the mean years of schooling (MYS) variables. For future research, it can be considered to use dynamic panel data to address the indirect effect of capital expenditure variables to reduce poverty. Maybe it may take longer for the impact of capital expenditure variable to be felt.

CONCLUSION

The capital expenditure variable has no effect on the poverty level because capital expenditure may not involve the poor directly in government projects; therefore, the increase in capital expenditure has no impact on the poverty rate in

The Province of West Kalimantan. It is also often the case that government spending must be evenly distributed in all aspects of life, both the poor and the non-poor groups. And due to a limited budget so that government spending is limited.

The contribution of the agricultural sector variable has a negative and significant influence on the poverty rate because there has been an economic transformation in other sectors. However, the agricultural sector has survived and even increased its productivity by adopting technological developments and optimal resource allocation. The increase in productivity leads to an increase in income, which eventually able to reduce poverty, including in The Province of West Kalimantan.

The variable of the mean years of schooling does not affect the poverty level. This may be due to unequal access to higher education, especially for poor households. Currently, the level of education that can be enjoyed for free by all Indonesian people is only up to the junior high school level through the 9-years Compulsory Education Program. Getting a job with a high income requires a higher level of education, and poor households cannot obtain a higher education opportunity. This eventually leads to intergenerational poverty transmission and children from poor households generally are trapped in poverty.

This study did not separate poverty at the district and city levels, although there were significant differences between poverty in the two regions, city, and regency. The variables influencing poverty at district and city levels were certainly different. The behavior of the poverty variable in the cities of Pontianak and Singkawang was certainly different from that of the poverty variable at the district level. This is because the living standards at the city and district levels are different. There are also differences in leading economic sectors that determine the rate of labor absorption. The Pontianak and Singkawang City are not regencies with the agriculture sector as the leading economic sector, while other areas are regions with leading sectors, namely the agricultural sector. While wage rates in agriculture and other sectors differ significantly, where the wages in the agricultural sector are relatively low compared to the wages in the non-agricultural sector. Regarding only one independent variable significant to the poverty level, this could be because this study did not use the dynamic model, despite the fact that it takes time for many government policies to be experienced by poor households. Future research can examine the topic of poverty by separating poverty at the city and district levels and using the dynamic model.

This research found that regions that do not rely on the agricultural sector as the leading sector

will certainly get different results related to the role of the agricultural sector in being less able to alleviate poverty. The findings of this research can be useful for policymakers who are concerned with the development of economic sectors in efforts to eradicate poverty. This research will help researchers uncover critical areas related to leading sectors in poverty alleviation that many researchers cannot explore. In this way, a new theory of poverty alleviation can be achieved.

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