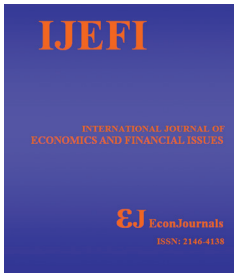

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The Role of Agricultural Sector in Explaining Poverty in Indonesia: A Study Case of West Kalimantan

M. Ali Nasrun*, Fariastuti, Sukma Indra

Faculty of Economics and Business, Universitas Tanjungpura, Pontianak, Indonesia. *Email: alinasrun56@gmail.com

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ABSTRACT

Poverty has become a significant economic problem and set as a priority of the United Nations (UN) in its Sustainable Development Goals (SDGs) program. Likewise, it remains a problem in the province of West Kalimantan, Indonesia, with its underprivileged population amounted to 369,730 people or 7.3% of the population in Indonesia. Meanwhile, Indonesia's agricultural sector is expected to fulfill some objectives, namely providing food and helping people get out of poverty. Therefore, this research aims to test the influence of output and labor absorption in the agricultural sector on the number of poor populations in West Kalimantan, Indonesia. It employed multiple regression to analyze panel data from 2008 to 2017 from the Indonesian and West Kalimantan's National Statistical Bureau (BPS, 2019). The research findings indicated that the output of the agricultural sector positively and significantly influences the number of people living in poverty. In contrast, labor absorption in the agriculture sector positively, yet insignificant, influences the number of people living in poverty in West Kalimantan. It might be caused by low productivity in the agricultural sector.

Keywords: The Agricultural Sector, Poverty, Labor Absorption
JEL Classifications: B22, Q01, Q12

1. INTRODUCTION

Poverty can be considered as an infectious and widespread virus among the population all over the world. Therefore, many countries aim to limit or eradicate this poverty virus's contagious effect in their economic development programs. Poverty refers to the low quality of life, low economic potential, and limited social surroundings so that some people cannot achieve a decent quality of life (Chambers, 2007; Hermawati et al., 2015); Sheyoputri, 2016). According to the National Statistical Bureau (BPS 2018), people living in poverty refer to those whose earnings are below the minimum wage (BPS, 2012). Poverty is also frequently considered a disgrace in a country's economy so that a country's success in reducing poverty can be translated into its economic development (Todaro and Smith, 2015; Jhingan, 2012). According to Smith (1776), no society would be able to develop their economy and well-being if most of its members are poor, underemployed, and miserable. In line with it, poverty becomes one of the main challenging problems for many countries, particularly the developing and least developing ones. Therefore, poverty alleviation and eradication of world hunger has become the priorities of the UN in their Sustainable Development Goals (SDGs) program.

For developing countries, the agricultural sector remains the primary sector and expected to contribute to economic development. Besides being trade commodities, agricultural products also contribute to the fulfillment of human needs. Therefore, agricultural products can retain their market share. In Indonesia, the agricultural sector's contribution to economic growth remains large because more than half of the total 34 provinces still rely on the agricultural sector to contribute toward their Gross Regional Domestic Product (GRDP). According to Hermawan (2012), the agricultural sector plays a more significant role in reducing rural poverty than urban poverty. Likewise, the findings from Abubakar et al. (2018) in Nigeria indicated that the agricultural

sector is somewhat effective in reducing poverty, both directly and indirectly. Meanwhile, Christiaensen et al. (2011) found that the agricultural sector is significantly more effective than the non-agricultural sector for reducing poverty in developing countries.

In Indonesia, the agricultural sector has become an essential sector in its economy because it has provided job opportunities for large populations, eradicated poverty, and contributed to economic growth. According to Olajide et al. (2013), a robust agricultural sector should provide food for the population, provide employment, generate foreign exchange, and provide raw materials for the industrial sector. This sector is believed to have multi-effects on the socio-economic and industrial sectors (Abubakar et al., 2018). Several factors are explaining the influence and dominance of this sector on some regions' economic growth. Firstly, the weak shift in economic structure (dominated raw agricultural sector) minimizes the multiplier effect. Secondly, low education among farmers and laborers in the sector, which affects their productivity. Thirdly, difficulties in accessing finance for the sector. Fourth, the low and fluctuating exchange rate for farmers (Arham and Naue, 2015).

The agricultural sector is the main driving force of the rural economy, so sustainable development in this sector is necessary to improve the local population's quality of life (Corral et al., 2017). Nevertheless, the contribution of the agricultural sector to national economic growth is no longer significant. Simultaneously, the contribution of manufacturing industries grows to be more significant, indicating that economic transformation is undergoing in Indonesia (Amir et al. 2020). This transformation depicts the decreasing contribution of the primary sector (13.92%), especially agriculture, compared to manufacturing (20.26%). Nevertheless, it is not followed by a shift in the labor structure because the agricultural sector maintains its dominance in employment in some provinces, approximately more than 30% of the total labor force. In three provinces (Papua, West Kalimantan, and West Sulawesi) have more than 50% labor force working in the agricultural sector (Amir et al., 2020). The decrease in the labor force's share in the agricultural sector has not followed the decline of the sector's contribution to economic growth. It indicates that the economic transformation in Indonesia remains a pseudo one. It might signal that the labor absorption in other sectors remains lower than the absorption in the agricultural sector. This assumption is in line with the newest finding of the structural transformation from Rizky and Jaya (2018), which stated that structural transformation in Indonesia between 1998 and 2014 has not positively contributed to the overall economy.

Traditionally, studies about agricultural sector's role on the economic development and poverty reduction have attracted the economists and resulted in a large body of empirical and theoretical studies (Cervantes-Godoy and Dewbre, 2010; Dorosh and Thurlow, 2018; Abro et al., 2014; Sakane et al., 2014). Most of this literature focused on structural economic transformation in both developed and developing countries. In developing countries, economic activities heavily depend on agriculture, while industries and services are more dominant in developed countries (Cervantes-Godoy and Dewbre, 2010).

In Indonesia, the problem lies in the declining agriculture's arable lands due to massive land conversion. Mining and plantation industries currently own most of the lands, and most urban populations occupy rural lands. Simultaneously, the labor absorption for the agricultural sector remains slow, though the number of workers in this sector remains high. As a result, there is a wage gap between urban and rural populations, and even among rural society itself. Significant wage inequality among the rural population will make poverty alleviation more difficult, despite the increase in economic growth (Kang and Imai, 2012; Iniguez-Montiel, 2014; Fosu, 2017).

The agricultural sector dominates the structure of the RGDP of West Kalimantan in 2017, with 20.30% from the total RGDP. This sector consists of several sub-sectors, namely food crops (3.26%); horticulture (1.91%); plantation (10.08%); animal husbandry (1.96%); agricultural service and plantation (0.27%); forestry and logging (1.29%); and fishery (1.52%). Moreover, the labors in this sector encompassed 1,192,196 employees or 51.76% out of 2,303,198 total employment (BPS, 2018). The agricultural sector also dominates the economic structure in West Kalimantan. In 2018, the sector's contribution to RGDP reached 20.25%, with the total value-added at IDR 39.29 trillion. This sector also recorded a relatively high level of growth at 6.68%. In terms of labor absorption, this sector also contributed the most with 50.94% of the total number of employees. Meanwhile, the number of people living in poverty was around 369,730 people, or 7.37% of the total population in West Kalimantan (BPS, 2019). Table 1 below depicts the development of the agricultural sector between 2008 and 2017:

In the developing and emerging countries, the number of people living in poverty is mostly working in the agricultural sector and living in rural areas (Todaro and Smith, 2015). Likewise, in Indonesia, most people living in poverty are working in the agricultural sector (Suselo and Tarsidin, 2009). In West Kalimantan, around 80.34% of people living in poverty live in rural areas where the agricultural sector flourishes; hence, most people living in poverty work in the sector (BPS Indonesia, 2019). Supposedly, the poverty reduction efforts can go through the sector; however, this sector is frequently unreliable to do so. Therefore, we need to examine the role of this sector in poverty alleviation in West Kalimantan, Indonesia. Regional diversity and dual economy (Boeke, 1953) in Indonesia provide the necessity for a region-specific policy.

Rural area dominates the poverty pockets in West Kalimantan, approximately 76-80% of the total population. In this province, the agricultural sector also dominates, indicating that most people living in poverty are working in this sector. On the one hand, the value-added of RGDP in the sector keeps increasing each year. On the other hand, the number of people living in poverty persistently do not decline along with the increase (it has been increasing, instead) though most agricultural lands are located in the rural areas. Table 2 and Figure 1 below depict the poverty trend and the change in RGDP in this sector compared to the number of people living in poverty:

Table 1: The agricultural sector in West Kalimantan

	2008	2010	2011	2013	2014	2015	2017
RGDP (in thousand rupiah)	12310365	14968663	22293535	26480738	27787631	29256618	34056267
The number of labors (people)	1239054	1266432	1294443	1182486	1182486	1279098	1192196
Labor productivity (Rupiah)	9.935,29	11.819,56	17.222,49	22.394,12	23.499,33	22.872,85	28.566
The total number of employees in West Kalimantan (people)	2040767	2095705	2146572	2053823	2226510	2235887	2304198

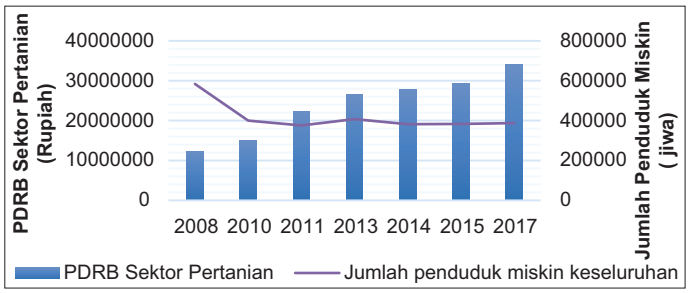
Sources: BPS several years and the analysis results

Table 2: Poverty in West Kalimantan

	2008	2010	2011	2013	2014	2015	2017
Poverty line (Rp)	158.834	189.407	206.850	252.617	285.290	323.615	377.219
- → Urban	179.261	207.884	225.245	264.149	291.532	334.575	379.187
- → Rural	150.968	182.293	198.886	242.321	279.049	318.793	375.621
People living in poverty (people)	508.800	428.760	380.110	369.010	401.510	383.700	387.430
- → Urban	127.490	83.430	84.470	71.750	82.050	82.050	76.160
- → Rural	381.290	345.320	225.250	297.260	319.460	301.650	311.270
Percentage of people living in poverty (%)	11,07	9.02	8,60	8,24	8,54	8,03	7,88

Sources: West Kalimantan Provincial Statistics 2011, 2014, 2016, 2019

Figure 1: The change in RGDP in the agricultural sector and the number of people living in poverty



Source: Table 1 and Table 2

Based on previous studies and empirical data above, this research aims to determine the performance of the agricultural sector in reducing the poverty rate in the rural areas in Indonesia and the contributing factor of poverty reduction. The agricultural sector is the primary sector in most provinces, though most rural areas are still living in poverty.

Deriving from the previous section, the agricultural sector remains expected to play a role in a proportional and sustainable poverty reduction efforts in developing countries, including Indonesia, by developing this sector to earn more wage as many poor households depend on this sector for income (Rehman, et al., 2016). Therefore, the main objective of this research is to test and analyze the influence of output and labor absorption in the agricultural sector on poverty reduction efforts in West Java. We expected that this research could contribute to policy formulation for the stakeholders to reduce poverty in rural areas, particularly in West Kalimantan. We consider this research significant because the previous research generally focused on the state-level analysis or multiple states-level so that research in a much smaller scope is needed for generalization purposes.

Meanwhile, the second part of this research will provide both theoretical and empirical studies. The third and fourth sections will discuss the research methodology and the findings, respectively. The last part will conclude this research.

2. LITERATURE REVIEW

According to Chambers (2007), poverty has two kinds of conditions. There are some terrible prerequisites, such as weakness, threatened, physical weakness, limited fund, and alienation, which subsequently shall influence each other. Unfortunate prerequisites can turn into good ones if one improves, for instance, having the freedom to choose and act, improve physical condition, enhance living conditions, and have a secure social connection. These factors influence each other in a circle. Kuznet (1955) argued that economic development would not be inclusive for all levels of society at an early stage. The transformation in economic structure does not increase productivity in the traditional agricultural sector, so that some people will live under poverty. Improvement in productivity commonly happens in the modern economy. At this stage, the agricultural sector can finally enhance their productivity and further decline the poverty rate.

2.1. The Influence of the Agricultural Sector on Poverty

The agricultural sector applies humans' works to nature in the cultivation of plants, animals, and hunting to provide more enormous benefits to humans (BPS Indonesia, 2019). In Indonesia, this sector includes several sectors, namely food crops, horticulture, plantation, forestry, animal husbandry, fishery, logging/animal conservation, and agricultural service. Following this sector's close relationship with nature, the agricultural business mostly flourishes in rural areas. It can also be carried out for generations. It can also absorb labor and provide income for most rural residents. Therefore, this sector is expected to reduce the number of people living in poverty (Mubyarto, 1983).

Hasan and Quibria (2002) discovered that this sector heavily influences poverty reduction at the early stage of economic development. Low-quality labor has difficulty moving to the more modern sector. In addition to reducing poverty, this sector can also balance economic inequality (Breisinger, et al. 2008). However, some previous studies showed that this sector could

not reduce the number of people living in poverty. Alfarabi et al. (2014) also found out that the primary sector's contribution does not significantly reduce the poverty rate. Moreover, Kolavalli et al. (2012) reported that Ghana replaced the agricultural sector's role with service to reduce the poverty rate because the agricultural sector is slower in adapting technological development. Breisinger, et al. (2008) suggested that this sector remains a traditional one, so it develops more slowly than others; thus, it is difficult to rely on it in any economic development program to reduce the poverty rate.

2.2. The Influence of Labor Absorption in the Agricultural Sector on Poverty Reduction

The relationship between the agricultural sector and poverty remain robust. Poverty itself mostly happens in rural areas and the agricultural sectors; hence, it is considered adequate to alleviate poverty (Jhingan, 2012; Kakwani, 2014). Many countries in Africa and South Asia have proven that the agricultural sector can reduce poverty (Mellor and Dorosh, 2010; Hasan and Quibria, 2002). Likewise, in Indonesia, the agricultural sector plays a significant role in reducing the number of people living in poverty, as long as the productivity in this sector improves (Suselo and Tarsidin, 2009). If this sector transforms and aims to improve its productivity, it will boost its influence on poverty reduction (Naiya, 2014).

Moreover, Amir et al. (2020) employed quantitative analysis through multiple regression based on a data from 33 provinces in Indonesia between 2014 and 2017 found that an increase in the share of the agricultural sector and income distribution have led to an increase in the number of people living in poverty in the rural areas. Furthermore, this research also revealed that the income distribution gap was a determinant of the severity of rural poverty. The growth of the agricultural sector that contributes to the economy can reduce rural poverty in Indonesia.

3. EMPIRICAL METHODS

This research employed time-series analysis for a data set between 2008 and 2017 and cross-section data from 14 regencies/municipalities, which amounted to 98 observations. The data was sourced from National Statistical Bureau (BPS) and included the value-added of the Regional Gross Domestic Product (RGDP) from the agricultural sector based on the current price, the number of labors in the agricultural sector, and the number of people living in poverty in each regency/municipality. Agricultural sectors were further divided into several sub-sectors. The data were then analyzed using Pearson Correlation and multiple regression. Pearson correlation aims to examine the influence of the agricultural sector and the number of labors on the poverty rate. Model 1 regression below aimed to measure such influence:

In which M_{ij} denotes the number of people living in poverty; P_{ij} denotes the agricultural sector's RGDP; K_{ij} denotes the number of labors in the sector; i denotes regency/municipal; j denotes the year; and denotes the error term.

Model 2 regression examines the influences of agriculture's sub-sectors on the number of poor populations:

In which M_{ij} denotes the number of people living in poverty; TP_{ij} denotes the value-added of RGDP for food crops sector; HK_{ij} denotes the value-added of RGDP for horticulture sub-sector; KB_{ij} denotes the value-added of RGDP for plantation sub-sector; TR_{ij} denotes the value-added of RGDP for animal husbandry sector; JS_{ij} denotes the value-added of the RGDP for agricultural service; HT_{ij} denotes the added value of RDGP in forestry and logging; IK_{ij} denotes the value-added of RDGP in fishery; i denotes regency/municipality; j denotes years; and denotes the error term.

4. EMPIRICAL RESULTS

The agricultural sector includes several sub-sectors which correlate differently with poverty. The correlation and relationship also differ for each regency/municipality. Table 3 displays the results of the Pearson Correlation for the relationships:

Surprisingly, there was a positive correlation between the agricultural sector and the number of poor populations with a 0.6234 correlation rate. It signals that as the value-added RGDP in the agricultural sector increases, so will the number of poor populations. The result becomes more interesting for the plantation sector, which determines the most value-added for the agricultural sector, and recorded a robust correlation at 0.8905 and its relationship with poverty also showed a positive correlation of 0.4303. Moreover, forestry displays the strongest correlation with poverty with a 0.6593 correlation rate, indicating that it would drive the most substantial increase in poverty and its increase in value-added. In other words, this sub-sector has the smallest contribution in poverty reduction.

At the regency/municipality level, Kubu Raya and Pontianak City showed the strongest yet negative correlation with poverty. It indicates that the increase in the agricultural sector's added value would drive down the poverty rate. Nevertheless, there were more regencies with positive and significant correlation rate with poverty, indicating that the value-added in the agricultural sectors could not make poverty rate decline. In this case, Sintang and Sanggau recorded the most considerable correlation between poverty and the number of poor populations, indicating that the increase in value-added would increase the number of poor populations, instead.

The analysis results for Model 1, which were resulted from multiple regression of General Least Square (GLS) are depicted below:

Cross-sectional time-series FGLS regression
Coefficients: generalized least squares
Panels: homoskedastic
Correlation: no autocorrelation

Therefore, Model 1 denotes:

$$M = 12729.9 + 0.004742P + 0.0566089K + e$$

The equation signifies that the agricultural sector positively and significantly influences the number of people living in

poverty, while the number of labor forces recorded positive, yet insignificant influence. Model 1 recorded the probability value more significant than the F value 0.0000, which is smaller than the α value of 0.05. The F-test value (Wald Chi²) was recorded at 46.99, while F-table recorded 3.13, along with α value at 0.05 and df at 67; hence, F-test is larger than F-table. It shows that the influences of RGDP's added value in the agricultural sector and the number of labor force in the sector are both signed on the number of people living in poverty. In line with the correlation results, this analysis shows that the increase in RGDP's value-added would increase the number of people living in poverty.

Meanwhile, Model 2 was analyzed using multiple regression and random effects:

Therefore, Model 2 denotes:

M = 20894.61 – 0.0009595TP – 0.0057847HK + 0.001384KB – 0.0018347TR – 0.0119746JS + 0.05262HT – 0.0058461IK + e

Model 2 indicates that other sub-sectors besides agricultural services recorded a negative influence on the number of people living in poverty, signaling that the increase in RGDP's value-

Estimated covariances=1					**Number of obs=70**	
Estimated autocorrelations=0					**Number of groups=14**	
Estimated coefficients=3					**Time periods=5**	
					Wald chi2 (2) = 46.99	
Log likelihood= −751.1772					**Prob>chi²=0.0000**	
M	**Coef.**	**Std. Err.**	**z**	**P>|z|**	**[95% Conf. Interval]**	
K	0.0566089	0.0458896	1.23	0.217	−0.0333331	0.146551
P	0.0047421	0.001589	2.98	0.003	0.0016277	0.0078565
Cons	12729.9	2718.119	4.68	0.000	7402.486	18057.32

Random-effects GLS regression					**Number of obs=70**	
Group variable: kab					**Number of groups=14**	
R-sq: within=0.3100					**Obs per group: min=5**	
between=0.2293					**avg=5.0**	
overall=0.2300					**max=5**	
					Wald chi2 (7) = 24.98	
corr (u_i, X) = 0 (assumed)					**Prob>chi2=0.0008**	
M	**Coef.**	**Std. Err.**	**z**	**P>|z|**	**[95% Conf. Interval]**	
Tp	−.0009595	−0.0043412	−0.22	0.825	−0.0094681	0.0075492
Hk	−0.0057847	0.0076599	−0.76	0.450	−0.0207978	0.0092283
Kb	0.001384	0.0014118	0.98	0.327	−0.0013832	0.0041511
Tr	−0.0018347	0.0082403	−0.22	0.824	−0.0179854	0.0143159
Js	−0.0119746	0.0053755	−2.23	0.026	−0.0225104	−0.0014389
Ht	0.0526259	0.0132681	3.97	0.000	0.026621	0.0786309
Ik	−0.0058461	0.0138704	−0.42	0.673	−0.0330316	0.0213395
cons	20894.61	3792.158	5.51	0.000	13462.12	28327.1
sigma_u					11565.629	
sigma_e					1450.8677	
rho					0.98450698 (fraction of variance due to u_i)	

Table 3: Person Correlation for the relationship between the agricultural sector (and its sub-sectors) and poverty in West Kalimantan

Regency/Municipality	Agriculture	Sub-sub Sektor Pertanian						
		Food	Horti	Plant	Livestock	Service	Forestry	Fishery
Sambas	-0.2694	-0.0556	-0.0215	0.0938	-0.4915	-0.3656	-0.4729	0,0230
Bengkayang	0.6946	0.8576	0.6003	0.6611	0.5615	0.5900	0.5583	0.5674
Landak	0.0304	0.0027	-0.0537	0.0035	0.0981	0.0426	0.3732	0.0794
Mempawah	0.1315	0.1448	0.1199	0.1994	0.0994	0.0993	0.2952	0.0747
Sanggau	0.8448	0.8353	0.8359	0.8447	0.8586	0.8421	0.1510	0.7890
Ketapang	-0.2990	-0.2656	-0.3637	-0.3477	-0.3611	-0.3587	0.8164	-0.4968
Sintang	0.8193	0.8335	0.8016	0.8351	0.7413	0.7522	0.7318	0.7613
Kapuas Hulu	-0.1695	-0.0900	-0.4963	-0.1383	-0,2924	-0.1998	0.5428	-0.2868
Sekadau	0.4918	0.5663	0.4802	0.4812	0.5393	0.5579	0.5849	0.4591
Melawi	0.6632	0.7331	0.5279	0.6586	0.5562	0.5795	0.6673	0.5342
Kayong Utara	0.3218	0.2996	0.5567	0.5929	0.1787	0.1622	0.1180	0.1822
Kubu Raya	-0.7302	-0.6077	-0.4280	-0.5172	-0.6610	-0.7235	-0.5443	-0.4946
Pontianak City	-0.6947	-0.4923	-0.1359	0.0017	-0.3725	-0.3336	-0.3999	-0.1608
Singkawang City	0.1572	0.1688	0.6162	-0.0747	0.0627	0.2369	0.3809	0.2976
West Kalimantan Province	0.6234	0.5057	0.3597	0.4303	0.4045	0.2244	0.6593	0.3058

Source: Data analysis results

added would increase the number of people living in poverty. Plantation and forestry and logging sectors all resulted in a positive relationship, but only forestry and logging recorded a significant influence on the number of people living in poverty. It means that if the forestry and logging sectors recorded a raise, then the number of people living in poverty will also surge.

Model 2 recorded a probability value larger than Chi^2 at 0.0008, indicating that it was larger than α (0.05). It means that the explanatory variables jointly influence the number of people living in poverty. Moreover, this model denoted R^2 at 0.23, indicating that it can only explain 23% of the cause of poverty. There is another 77%, which can be explained by other variables beyond this research.

There have been numerous facts in many countries that show poverty pockets remain in the agricultural sector and rural areas (Todaro and Smith, 2015; Jhingan, 2012). Such facts are also presented in Indonesia, as depicted by the studies from Mubyarto (1983) and Suselo and Tarsidin (2009). This research also stated that the poverty pocket in the West Kalimantan area is located in the rural area and agricultural sector. The reasons are low labor productivity in the sector, though most labors are employed there.

Poverty alleviation efforts in West Kalimantan face some grueling challenges. Though it is widely known where the poverty pockets are located, the agricultural sector remains unreliable to reduce the number of people living in poverty. This assumption is proven by the results of correlation and regression in this study, which generally explained the positive and linear relationship between the agricultural sector and the number of people living in poverty. It means that if the value-added of RGDP in the agricultural sector increases, then the number of people living in poverty also surge. These findings contradict some previous theories (Todaro and Smith, 2015; Jhingan, 2012; Mubyarto, 1983) and researches (Datt et al., 2016; Kakwani, 2014; Hasan and Quibria, 2002; Suselo and Tarsidin, 2009; Breisingera and Diao, 2008). Previous literature tended to rely on the agricultural sector to reduce the number of people living in poverty, because the sector mostly employs the people living in poverty, particularly in rural areas (Mellor and Dorosh, 2010).

The low labor productivity causes the unreliable role of the agricultural sector to reduce the number of people living in poverty, so they cannot improve labor wages in the sector and alleviate its employees from poverty. Therefore, the more labors in the agricultural sector, the more people live in poverty as the labor's marginal product keeps getting smaller. The positive and strong correlation results between agricultural labors and people living in poverty prove this assumption. Also, Model 1's regression results showed the positive influence of people working in the agricultural sector with people living in poverty, albeit insignificant.

This research's findings are in line with the previous studies (Alfarabi et al., 2014; Kolavalli et al., 2012; Breisingera and Diao, 2008), which reported that the agricultural sector did not have a significant influence on poverty reduction. Those studies discovered that low technology and its impact on labor's low productivity caused insignificance results. Therefore, it is difficult to rely on agricultural people to reduce the number of people living in poverty in West Kalimantan if their productivities are not improving. Improving productivity should be done through the overall enhancement of systems, management, and technology. The efforts shall be integrated among all aspects of agriculture, namely cultivation, post-harvesting, marketing, infrastructure, government policy, human capital, and agricultural social system.

The findings further implied that other factors beyond the agricultural sector influence the number of people living in poverty because the agricultural sector only influences 23% of poverty reduction. Chambers (2007) also posited that many interrelated factors caused and characterized poverty. A comprehensive and complete treatment is the prerequisite for poverty alleviation programs. Based on Kuznet's (1955) theory, this research's findings reflect the early development stage in West Kalimantan. It is indicated by most parts of society that have not been able to follow and enjoy the prosperity from economic growth. The new agricultural industry is expected to improve its productivity at the next stage of development. Boeke (1953) required that economic development programs must be formulated based on specific conditions in certain areas.

5. CONCLUSION AND POLICY IMPLICATIONS

Poverty in West Kalimantan province is rampant in the agricultural sector and rural areas. However, the output of this sector also significantly and positively influenced the number of poor populations. Labor absorption in this sector positively, yet insignificantly, influenced the number of people living in poverty. It indicates that this sector can only absorb workers from the poor population, yet it fails to reduce poverty. It might be caused by low productivity in this sector and other influencing factors outside the sector. These phenomena describe the characters of an early developmental stage. More advanced development and utmost efforts are needed to increase the productivity of this sector to contribute to poverty reduction efforts. Economic development programs should consider the unique characters of the province, instead of general development theories.

The agricultural sector has failed to drive the poverty reduction in West Kalimantan province because the massive development in this sector, for instance, in the plantation, forestry, and logging sectors, has failed to trigger multiple effects to develop home-based industries, particularly among the poor rural population. As a result, the spread effect as posited by Gunnar Myrdal (Jhingan, 2012) and the efforts to decrease the economic inequality do not optimally reduce poverty in the development of the agricultural sector in West Kalimantan, Indonesia.

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