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INFLUENCE OF GEOGRAPHICAL FACTORS AND IINFRASTRUCTURE ON POVERTY IN THE BODEBEK REGION IN WEST JAVA PROVINCE

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ABSTRACT

This study intends to examine the influence of geographical and infrastructure factors on poverty in the Bogor, Depok and Bekasi (Bodebek) areas in West Java Province. To achieve the objectives of the penelitian, a regression method is used using the poverty variable as the dependent variable. While the dependent variables are divided into 4 (four) groups, which are divided into groups of variables of geography, infrastructure, population economy, and macroeconomic variables. The data used in this study came from the raw data of the Village Potential Data Collection (Podes) of West Java Province released by the Central Statistics Agency. The data period used is Podes data in 2011, 2014 and 2018. The scope of the study was at the village / kelurahan level with a household-level analysis unit. The observations cover 5 buffer areas of the State Capital in West Java Province, including Bekasi Regency, Bekasi City, Bogor Regency, Bogor City and Depok City. The total samples used from the six regions were 802 villages and sub-districts. The data analysis technique used is a panel data regression technique or model. The processing of research data was carried out using stata 13 software. The study concluded that factors of geography, infrastructure, economic conditions of the population as well as macroeconomic variables influenced or at least related to poverty in the areas of Bogor Regency, Bogor City, Depok City, Bekasi Regency and Bekasi City (Bodebek). The influence of each variable is different in each district and city in the Bodebek region

Keyword: Poverty, Geography, Infrastructure, Podes, West Java

INTRODUCTION

The change in development goals has led to the development ofhuman beings. This change has made poverty a dominant issue in the development paradigm (Misturelli & Heffernan, 2010). The issues of poverty alleviation, development concentration and the elimination of injustice are some of the conditions that must be met for the success of human development. The previous development goal was only to pursue high economic growth. As a result, there have been variouseconomic and social problems that still occur today (Acemoglu & Robinson, 2017). In this condition, there are some groups of people who can enjoy adequate income and desired welfare. Meanwhile, some other communities are still in poor and backward conditions. Ideally the higher the economic growth, the more opportunities to increase income and well-being (Fosu, 2017; Baros & Gupta, 2017; Ginting, 2015; and Puspita, 2015). However, insome developing countries including Indonesia, increasing economic growth is not always followed by a decrease in poverty rates (Nurmainah, 2013; Zuhiyati & Kaluge, 2018).

The concept and definition of poverty has been widely discussed and debated. Mainstream poverty approaches focus on the measurement side. One of the measures of poverty that is widely used is the *bacis needs approach*. Based on this approach, poverty is defined as a person's inability to meet the minimum needs measured or expressed in monetary units. There are several definitions that refer to this approach. The World Bank defines kemiskinan as the inability to meet a minimum standard of living (Haughton & Khandker, 2012). The definition of poverty was revised in 2000/2001 to the gap of a prosperous life. While the United Nations (UN) defines poverty as the absence of a fundamental ability to live a decent life.

All of these definitions refer to the notion of economic poverty, which can be differentiated into absolute poverty and relative poverty. Furthermore, the poverty view uses a multidimensional approach in measuring poverty. The multidimensional view views poverty as a multidimesional problem. Poverty is placed not only because of the absence of one factor for example the economy, but is caused by various factors that influence each other.

This study tries to offer a different point of view in looking at poverty. The concept of poverty does not always have to be studied on the measurement side, but it needs to be seen from a different approach. In this study, the existence of poverty will be seen from several approaches that are also opposed to each other. The geography approach emphasizes the dimension of geography as a factor influencing poverty (Sachs, 2001). Meanwhile, the institutional approach prioritizes institutional factors, namely various rules of the game, governance, which can be realized in sharing policies, which produce outputs in the form of facilities and infrastructure that affect prosperity and prosperity (Acemoglu et al., 2001, 2017; Glaeser et al., 2004; Heliwell et al, 2018). Theeconomic conditions represented by the income sources of the population and the number of small and medium enterprises (SMEs) are also considered as factors that are also suspected to affect poverty. Finally, this study still considers macroeconomic variables in the form of the rate of Gross Regional Domestic Product (GRDP) as a factor that has a significant effect on poverty.

Poverty studies generally use secondary data in the form of poverty rates or the number of poor people as a measure of the poor population. Meanwhile, the measure of poverty in this study uses the approach of the number of people receiving health insurance cards at both the national and regional levels. The use of this data is intended to be closer to the actual conditions. Receiving health assistance is one of the alternatives to poverty data that can be used. This data is sourced from the Badan Pusat Statistk (BPS) in collaboration with the National Team for Poverty Reduction (TNP2K). In this case, the data on the poor contains the name and address of the head of the poor family. The data was obtained from raw data from the Village Potential (Podes) survey of West Java Province released by the Central Statistics Agency.

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LITERATURE REVIEW

Theproximity of geography and institutional approach is alternative view that tries to explain poverty. These two views are also often debated. Bothof these views are to the factors that are thought to be the cause of or at least related to poverty. The geography approach on the one hand points to aspects of geography as factors related to poverty. Natural conditions, regional location, climate, topography and other geographical conditions that are considered unfavorable have an influence on the occurrence of poverty in a country or region (Demurger et al., 2002;; Liu & Xu, 2016; and Rahayu et al. , 2019). The effect of location on income levels and economic growth occurs through transportation cost channels, while climate affects low incomes through the potential for high disease burdens and low productivity (Gallup et al., 1999). Countries with tropical climates tend to have agricultural production technologies and lower levels of health compared to temperate countries (Sachs et al., 2001).

The institutional approach on the different sides argues that institutionality is an important factor that determines the progress of a country. Prosperity and poverty are related to institutional factors, such as governance, regulation, or social institutions in society. A number of studies concluded that institutions contribute positively to a country's economy (Acemoglu et al., 2001; Glaeser et al., 2004; and Helliwell et al., 2018). According to this view, proper geographical conditions, good technology, or better quality of the population can lead to economic growth. However, all of that cannot trigger well-being in the absence of a good institutional system. Institutionalizationis defined as a set of rules or institutions along with economic and social institutions that overshadow the economic and political activities of the perpetrators. Institutionalization is understood as the rules of the game that are associated with several dimensions such as the political dimension, the capacity of the state, the enforcement of property rights, regulations or policies that regulate all resources (Ravallion, 2016). A good institution is an inclusive institution, namely an institution that is able to maximize the potential and talents of every citizen (Acemoglu, et.al., 2017).

The debate between geographical and institutional approaches has also been widely used in analyzing poverty in various countries, including Indonesia. Several studies have found that geographical factors such as regional location, topography, rural area conditions or the distance between villages and hospitals are factors that affect poverty in the West Java Province (Djamaluddin, 2014); in Central Java Province (Jajang, et al., 2013); Bengkulu Province (Harmes, 2017) and in Riau Rahayu Province (2019). Meanwhile, other studies have found that institutional factors are an important element in explaining the occurrence of poverty. The studies use variables of economic and social infrastructure availability for institutional factors. The findings in these studies show that the use of electricity facilities, paved roads, clean water and sanitation has an influence on the increase in population income (Balisacan et al., 2002; Nashwari et al., 2016; Sari & Kawashima, 2016; Hakim et al., 2021). This study intends to test geographical and institutional factors that are suspected to have an influence on poverty in the Bogor, Depok and Bekasi (Bodebek) areas of West Java Province. The Bedebek region consists of five regencies/cities, namely Depok Regency,

Bogor City, Depok City, Bekasi Regency and Bekasi City. The five areas are located close to and even attached to DKI Jakarta Province. The rapid development of the Bodebek area is inseparable from its role as a buffer area for DKI Jakarta Province's activities. The high economic activity can be seen from the pace of economic growth and the contribution of GRDP to the GRDP of West Java Province. The total GRDP of the Bodebek region covers 47.34 percent of the total GRDP of West Java Province in 2018. However, in the social aspect, poverty is also high, which is as much as 22 percent of the total poor population of West Java Province . Table 1 below shows the percentage of GRDP and the percentage of the number of poor people against the GRDP and the number of poor people of West Java Province.

Table 1
Percentage of GRDP and Number of Poor People in Bodebek Region to the GRDP and the Number of Poor People in West Java Province

Districts/Cities	Percentage of GRDP to WEST Java's GRDP	Percentage of the number of poor people
Bogor	11.07	0.11
Bekasi	15.42	0.04
Bogor City	2.13	0.02
Bekasi City	4.59	0.03
Depok City	3.25	0.01
Total	**47.34**	**0.22**

Source: Processed from the Central Statistics Agency (2018)

The infrastructure and facilities available to support the economic and social activities in the Bodebek region are seen as more adequate than the rest of the region. Data from the Central Statistics Agency of West Java Province noted that as many as 29 percent of the number of hospital and maternity hospital health services in West Java Province are in the five Bodebek regions. The percentage of the number of elementary and junior high schools in the Bodebek area was recorded at 18 percent and 58 percent of the total elementary and junior high schools of all districts/cities of West Java Province , respectively. In addition, the average percentage of the population who have healthy sanitation facilities and clean water is above the average of West Java Province (https://jabar.bps.go.id/). The high level of economic activity, the availability of sufficient infrastructure do not make the Bodebek region free from the problem of poverty. The number of poor people in the Bodebek region covers approximately 20 percent of the total poor population in West Java Province. Based on the description that has been put forward, it is interesting to study how geographical, institutional, economic conditions and macroeconomic variables can affect poverty that occurs in the Bedebek region.

RESEARCH METHODS

This research is descriptive quantitative in describing the phenomenon of poverty as well as factors that are determinants or at least related to poverty. The data used in this study came from the raw data of the Village Potential Data Collection (Podes) of West Java Province released by the Central Statistics Agency. Podes data is the only regional data source whose content varies and provides an overview of the development situation of the region. The data period used is Podes data in 2011, 2014 and 2018. The scope of the study was at the village / kelurahan level with a household-level analysis unit. The observations cover 5 buffer areas of the State Capital in West Java Province, including Bekasi Regency, Bekasi City, Bogor Regency, Bogor City and Depok City. The total samples used from the six regions were 802 villages and sub-districts. This study used the poverty variable as the dependent variable. In research it is defined as the inability of a person to meet the needs for a prosperous life. The poverty variable (Y) is measured by the number of residents receiving the JAMKESMAS / JAMKESDA / BPJS health card for Contribution Assistance Recipients (PBI).

While the dependent variables are divided into 4 (four) groups, which are divided into groups of geographical variables, groups of infrastructure variables, groups of variables that describe the economic characteristics of the population, and groups of macroeconomic variables. Such groups of independent variables can be described as follows:

1. Geographic variables, including the topography of the area (X1); the distance of the village of the district/city capital (X2); the distance of the village to the nearest hospital (X3); and the distance of the village to the nearest market (X4).
2. Variables of availability of educational infrastructure are the number of elementary schools (X5) and the number of junior high schools (X6); health infrastructure including health facilities (X7), the number of Integrated Health Service Posts or Posyandu (X8), the number of health workers (X9); road infrastructure (X10), street lighting facilities (X11); market facilities (X12); bank facilities (X13); clean water facilities (X14); sanitary facilities (X15); electricity facilities (X16); and Kredit Usaha Rakyat or KUR facilities (X19).
3. Variables of community economic conditions include the main source of income of the population (X17) and the number of small and medium enterprises or SMEs (X18)
4. Macroeconomic variables include the rate of Gross Regional Domestic Product or GRDP (X20) and the Human Development Index or HDI (X21).

Based on the variables used, an econometric-based research model is compiled. The specification of the research model refers to several previous studies that consider geographical factors (region), characteristics of society or infrastructure, economic characteristics as well as macroeconomic variables as determinants or at least related to poverty. Some of these studies include Balisacan et al. (2002), Nandori (2012), Barros and Gupta (2017), and Fosu (2017). Furthermore, the model used to analyze the factors affecting poverty in 5 (six) Bodebek regions in West Java Province is as follows:

$$Y_{it} = \alpha + \beta_1 X1_{it} + \beta_2 X2_{it} + \beta_3 X3_{it} + \beta_4 X4_{it} + \beta_5 X5_{it} + \beta_6 X6_{it} + \beta_7 X7_{it} + \beta_8 X8_{it} + \beta_9 X9_{it} + \beta_{10} X10_{it} + \beta_{11} X11 + \beta_{12} X12_{it} + \beta_{13} X13_{it} + \beta_{14} X14 + \beta_{15} X15_{it} + \beta_{16} X16_{it} + \beta_{17} X17_{it} + \beta_{18} X18_{it} + \beta_{19} X19_{it} + \beta_{20} X20_{it} + \beta_{21} X21_{it} + \varepsilon_{it}$$

Thedata analysis technique used to analyze the influence of independent variables on dependent variables is a panel data regression technique or model. Thedata of the study was conducted using stata 13 software. Thereare 3 (three) models that can be used to estimate the parameters in the regression of panel data, namely the common effect model, the fixed effect model and the random effect model. Thedetermination of which model is best to use is determined through testing using the Chow, Breusch Pagan and Hausman tests.

RESULTS AND DISCUSSION

This research model assumes that there are differences in characteristics between villages / between regions, but do not change between times. This assumption arises because in reality, each village in the research observation has different characteristics, such as differences in topography, regional location, government conditions, leadership style, economic conditions, society, and others. Based on these assumptions, the model suggested in each district/city is not the same. The results of model selection testing using the Chow test, The Breusch Pagan Test and the Hausman test showed that the fixed effect model is the best model for Bogor Regency and Karawang Regency. Meanwhile, the appropriate model for Bekasi Regency and Bogor City is the common effect model. The random effect model is the best model for estimating poverty parameters in Bekasi City and Depok City.
In research models that use common effect and fixed effect methods, it is necessary to test multicholinearity and test heteroskedasticity. The results of the multicholinearity test showed that there was a correlation between the variable number of elementary schools and the number of junior high schools in three (three) three districts/cities. The coexistence value between these variables is found in Bogor Regency of 0.5311, in Bekasi Regency of 0.6104 and in Bogor City of 0.3856. Based on the value of the collinierity it was decided that this correlation is still allowed to be contained in the model because it is not a perfect collinierity. The existence of heteroskedasticity encountered through the Wald test was overcome using the White/heteroskedasticity-robust standard error method. Through this method, an estimation coefficient that is immune (robust) to violations of the assumption of homoskedasticity is obtained. The resulting estimator becomes unbiased and consistent so that it is valid for the t test and the F test.

Table 2.
Panel Data Regression Results

Variable	Regency Bogor	Bogor City	Bekasi Regency	Bekasi City	Depok City
	POV	POV	POV	POV	POV

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X1	98,086 (213,909)	2.555,920*** (559,748)	-217,613 (556,939)	- -	- -
X2	-3,039 (4, 151)	6,108 (60,950)	1,162 (5,196)	-44,789 (42,490)	-68,629 (52,044)
X3	-4,218 (6,653)	43,110 (48,815)	-8,432 (11,484)	-126,220 (121,952)	82,570 (88,781)
X4	-11,545 (12,192)	-110,817 (102,918)	-17 529** 7,282	50,766 (190,503)	51,893 (92,752)
X5	27,047 (37,156)	141,332** (65,052)	164,148*** (42,118)	44,360 (44,094)	66,816 (66,416)
X6	-28,110 (43,746)	-313,850** (123,328)	-5,216 (62,645)	113,813 (97,210)	160,037 (109,093)
X7	4,497 (15,038)	114,883** (48,144)	3,830 (12,867)	17,962 (13,991)	-3,393 (17,359)
X8	-12,891 (18,011)	11,803 (42,712)	-7,845 (16,878)	14,962 (18,037)	12,335 (38,840)
X9	-11,791 (7,963)	8,064 (6,051)	-7,251*** (2,443)	4,444 (6,796)	16,536** (8,250)
X10	-336,057 (308,956)	- -	85,175 (413,252)	- -	- -
X11	124,694 (148,625)	-694,830 (1.431032)	271,964 (184,405)	3.365,775 ** (1.650746)	659,975 (1.197081)
X12	-265,632 (179,822)	749,192 (535,820)	-76,190 (222,451)	827,849 (675,347)	822,831 (582,067)
X13	353,196* (198,866)	-172,163 (404,727)	-283,020 (297,825)	664,264 (615,165)	33,110 (475,684)
X14	-145,094 (118,149)	-501,106 (475,076)	-37,071 (234,850)	2,047,072 ** (871,483)	-324,569 (649,638)
X15	154,022 (135,316)	255,192 (838,878)	-74,675 (198,221)	-621,826 (1.325367)	-768,016 (917,778)
X16	7,966* (4,755)	16,318 (17,917)	-10,080 (9,895)	91,248* (55,175)	-8,344 (35,658)
X17	61,852 (110,946)	1.803,118*** (483,215)	325,882 (259,563)	2.068864 (2.257085)	-2.079,731 ** (979,255)
X18	1,039 (1,274)	23,757** (9,904)	7,867** (3,742)	10,438*** (3,159)	-3,293 (10,414)

X19	-144,406 (111,615)	333,451 (392,712)	258,106 (204,752)	807,329 (557,514)	56,152 (444,651)
X20	22.675,775*** (5.802400)	-8.504,081*** (2.573045)	-1.225,410*** (408,083)	-1.880132 (1.829488)	-2.996396 (2.203753)
X21	1.322,208*** (392,231)	-106,994 (160,209)	-238,586*** (75,608)	-786,664 (930,981)	1.530,269*** (377,976)
Observation	1.212	200	532	162	181
R-squared	0,157	0,302	0,125	0,270	0,387
Number of villages	426	68	187	56	63

Source: Processed data (2020)

The results of data processing in table 3 show that pthere is Bogor Regency, there are two variables that significantly affect poverty, namely the rate of GRDP and HDI. Both variables have a positively marked influence, meaning that the higher the rate of GRDP and HDI, the higher the poverty. Meanwhile, in Bogor City, there are several independent variables that have a significant influence on poverty, including regional topographical dummy variables, the number of elementary schools/mi, the number of junior high schools/MTs and the rate of GRDP with varying coefficient signs. Different results also occurred in Bekasi Regency. Variables such as the distance of the village office to the nearest market, the number of elementary schools (SD/MI), the number of health workers, the number of SMEs, the rate of GRDP and HDI are variables that significantly affect poverty in Bekasi Regency. Meanwhile, the dummy variables of drinking water sources, street lighting infrastructure and the number of SMEs are variables that have a significant effect on poverty in Bekasi City. Furthermore, poverty in Depok City is significantly influenced by the dummy variables of the main source of income of the population, the number of health workers and hdi.

As stated in the methodology, the independent variables used in this study were grouped into 4 groups, namely geographical variables, social and economic infrastructure variables, economic condition variables and variables Macroeconomic. Based on the results of data processing, it can be seen that not all variables have a significant effect on poverty in each district/city. In addition, patterns of influence of significant variables on poverty also vary between districts/cities. The following table 4 presents an overview of the

influence of the grouping of independent variables along with the signs of coefficients or patterns of their influence on poverty in the five BODEBEK regions.

Table 3.
Influence of Significant Variables of Geography, Infrastructure, Economic and Macroeconomic Characteristics on Poverty in the Bodebek Region, West Java Province

No.	Variables	Districts/cities	Coefficient Signs
A. Geography Variables			
1	Topography of the territory	Bogor City	(+) Positive
2	Distance of the village to the nearest market	Bekasi Regency	(-) Negative
B. Infrastructure Variables			
1	Number of SDs	Bekasi Regency,	(+) Positive
		Bogor City	(+) Positive
2	Number of Junior High Schools	Bogor City	(-) Negative
3	Number of health facilities	Bogor City	(+) Positive
		Depok City	(+) Positive
4	Number of health workers	Bekasi Regency	(-) Negative
5	Sources of drinking water	Bekasi City	(+) Positive
6	Lighting infrastructure	Bekasi City	(+) Positive
C. Variables of Economic Characteristics			
1	The main sources of income	Bogor City	(+) Positive
		Depok City	(-) Negative
2	Number of SMEs	Bekasi Regency	(+) Positive
		Bogor City	(+) Positive
		Bekasi City	(+) Positive
D. Macroeconomic Variables			
1	GRDP rate	Bogor Regency	(+) Negative
		Bekasi Regency	(-) Negative
		Bogor City	(+) Positive
2	IPM	Bogor Regency	(+) Positive
		Bekasi Regency	(-) Negative
		Depok City	(+) Positive

Source: processed data (2020)

Influence of Variabel-variable Gographyon Kemiskinan on Wilayah Bodebek

Geographical factors, namely the topography of the area, affect poverty in Bogor City with a coefficient marked positively. Geographically, Bogor City is located in the middle of

Bogor Regency. The height of Bogor City is between 190 m and a maximum of 330 m from sea level, with most of the area in the form of plains or expanses. Impoverishments will tend to be higher in plain areas than in mountainous or valley areas. The plain area, which is the main residential place for the residents of Bogor City, is full of problems of urban marginalized residents. This plain area has a high potential for the emergence of poverty problems. In Bekasi Regency, the variable number of poor people has the same direction as the variable distance of the village to the nearest market. This means that the shorter the distance between the region and the nearest market, the higher it has a higher poverty rate, and vice versa. This shows that the existence of the market has not provided a multiplier to the improvement of the welfare of the local population.

Effect of Variabel-variable Iof the structure on theimpoverishment of the Wilayah Bodebek

Variables reflecting the availability of educational infrastructure have a significant effect on poverty in Bekasi Regency and Bogor City. In Bekasi Regency and Bogor City, thenumber of primary schools has a significant and positive influence on poverty. The construction of educational facilities such as elementary schools is a long-term investment. The results of this study are in line with the findings of Dardiri et al. (2019) which found that the level of education also did not significantly affect poverty in Bogor City. Meanwhile, the increase in the number of junior high schools has an influence on reducing poverty in Bogor City. The development of further education infrastructure (SMP or SMA) has a shorter period of time to generate an increase in income.

The group of variables describing the availability of health infrastructure affects poverty in Bogor City, Bekasi Regency and Depok City. In Bogor City, the signification of the influence of theariabel of health facilities on poverty is positive. The increase in poverty is moving in line with the increase in the number of health facilities. Implicitly, this result implies that the number of health facilities available in Bogor City has not been able to meet health services equally to the entire community. One of the problems is that not all health service facilities have thesame as service quality standards. Thecompleteness of facilities and infrastructure for puskesmas, hospitals, maternity cottages, health huts is also an important factor in providing excellent health services for the community (Pamungkas & Kurniasari, 2020).

Health infrastructure variables in the form of the number of health workers such as general practitioners/specialists, dentists and midwives have a significant effect in reducing impoverishmentn in Bekasi Regency. These results show the significant role of health workers in accelerating health development. However, the addition of health workers has the same direction as the increase in poverty in Depok City. The increase in the number of health workers is not always followed by the even distribution of the population to get health services. This is in line with the findings of Aini et al. (2016) that health indicators in the form of variables of health facilities and health workers do not have a significant effect on changes in human development in HDI indicators in Depok City.

The availability of environmental health facilities reflected in the variables of drinking water sources has a positive influence on fish signi fand is positive on poverty in Bekasi City. As in most urban areas, clean water facilities are obtained from plumbing or piped water sources from drinking water treatment companies, bottled water and groundwater taken using pumps and filtered. Based on data from bps west java province in 2020 about the percentage of householdsaccording to household drinking water sources in 2018, it was recorded that as many as 75.17 percent of households used bottled water as a source of drinking water; as many as 22.33 percent of households used pumps; as many as 1.32 percent of households used plumbing; and 1.18 percent of households used protected wells. The procurement of water source facilities requires costs that ultimately increase the burden on household expenses. On the other hand, the availability of main road lighting infrastructure is also not related to the increase in the number of poor people in Bekasi City.

Influence of Variabel-V ariabel Karachteristic Ekonomi on Kemiskinan on Wilayah Bodebek

Variables of economic characteristics of the main source of income of the population and the number of SMEs significantly affect poverty in Bogor City, Depok City, Bekasi City and Bekasi Regency. In Bogor City, the main source of income for the population in the agricultural sector tends to increase poverty compared to non-agricultural sources of income. The agricultural sector with a low exchange rate and increasingly eroded by the industrial and service sectors, is increasingly unable to provide adequate welfare to its population. This is in contrast to Depok City, where the main non-agricultural source of income tends to cause more poor people. As an urban area buffering the national capital, Depok City has grown into an increasingly congested city. Various urban socioeconomic problems faced cause Depok City to be vulnerable to the poverty of urban residents with the main source of income not agriculture.

The variable number of SMEs statistically significantly affects poverty in Bogor City, Bekasi Regency and Bekasi City. In these three regions, the increase in the number of SMEs is in the direction of poverty. This result confirms that the increase in the number of SMEs is not always followed by a decrease in poverty. The existence of SMEs is still not optimal in helping to create jobs, increase income and welfare of villagers/kelurahan residents. The findings of this study support the findings of Primatami & Hidayati (2019) which states that the ability of SMEs to absorb energy is not always determined by the number of SMEs or the number of residents.

Effect of Variabel-variable Macro on Kemiskinan pada Wilayah Bodebek

The macro variable of the GRDP rate is a significant variable affectingpoverty in Bogor Regency and Bogor City with a positively marked coefficient. Implicitly, this result is interpreted that the increase in GRDP in Bogor Regency and Bogor City has not been able to reduce the number of poor people. These results are different from most studies that an increase in GRDP or economic growth is able to improve welfare and reduce poverty (Fosu,

2017; Barros & Gupta, 2017; Ginting, 2015, Puspita, 2015). However, this finding is in line with the results of the Astuti study (2018) that economic activities reflected in GRDP are not significant to reduce poverty in the case of Parung Village, Bogor Regency. In addition, the findings of Nurmainah (2013) and Zuhdiyati & Kaluge (2018) that economic growth cannot be enjoyed equally by the entire community.

The HDI variable has a significant and negative effect on poverty in Bogor Regency and Depok City, and negatively affects poverty in Bekasi Regency. The increase in HDI reflecting the improvement of development outcomes has a direction that is not in line with poverty. This result does not correspond to the hypothesized theory. Meanwhile, in Bekasi Regency, improving the quality of human development in the fields of education, health and income has a significant effect in reducing the number of poor people.

These findings suggest that economic growth does not necessarily have an impact on reducing poverty. High economic growth does not always describe equitable prosperity. Equitable income distribution and low inequality are more visible in the size of per capita income or GRDP per capita. The study conducted by Sumarto et al. (2017) revealed the fact that poverty is lower in districts with high levels of GRDP per capita and higher average education levels. Quality economic growth will increase wider access to the public to education services, health and better economic opportunities, resulting in an increase in HDI. The findings of this analysis are in line with Nugroho (2015) that basic infrastructureaffects poverty indirectly but through improvements to the Human Development Index (HDI).

CONCLUSION

1. Factor geography has a significant influence on poverty in Bogor City and Bekasi Regency. In general, this conclusion is interpreted that poverty in the Bodebek area is not directly related to geographical factors in terms of topographical aspects and village distance.
2. Institutional factors reflected in the availability of infrastructure also have a varied influence on poverty in the Bodebek region. Theimpoverishment of the Bodebek region deals with educational and health issues including environmental health. As a buffer for the State Capital, the Bodebek region is inseparable from the socioeconomic impacts in the State Capital. The positive impact can be seen in basic infrastructure such as paved/paved concrete paved road facilities, electricity supply and street lighting which is enjoyed almost throughout the Bodebek area. Meanwhile, the negative impact is that it can increase urban poverty in the Bodebek region, due to the overflow of the population and the socioeconomic problems it brings
3. Economic characteristics affect poverty in the Bodebek area in Bogor City and Depok City. Poverty in Bogor City tends to be rural poverty with agriculture as the main livelihood of the population. Meanwhile, poverty in Depok City tends to be urban poverty with the main livelihood of the population not in the agricultural sector. Related to the findings on the SME variables, it was concluded that sektor haan entrepreneurship in the Bodebek region has not been able to supportjadi sector support for increasing income

and welfare. Capital, marketing, and other management problems are still obstacles faced by SMEs to be more advanced and play a role in improving the economic welfare of actors and the community.

4. Theincrease in the rate of GRDP and HDI towards poverty has an important role in efforts to reduce poverty in the Bekasi Regency area. However, in Bogor Regency and Bogor City, the increase in the rate of GRDP and HDI has not been able to transform into an increase in income and welfare. The suspicion of growth that is not accompanied by equality is one of the causes. Economic growth that is not redistributive is alleged to have not had a significant influence on reducing poverty in parts of Bodebek.

SUGGESTION

1. Relatedto geographical factors, poverty in the Bodebek region is thought to be more related to the location of the area that is directly adjacent and becomes a buffer for economic and social activities in the National Capital. Therefore, an urban planning is needed that considers the economic, social and environmental carrying capacity of the five Bodebek regions.
2. On the necessary educational infrastructure not only the number, but higher quality and level. Job opportunities in the industrial and service sectors require the demands of higher educational qualifications, such as high schools and universities. Expanding vocational schools that can directly connect with the world of work can be one solution that can be considered. In the health aspect, local governments can support health service programs that can be accessed cheaply through the addition of regional health insurance programs. In terms of clean water needs, local governments can provide assistance in the procurement of clean water at low cost. This program is expected to reduce the use of bottled drinking water which is expensive and has a negative impact on the environment.
3. Theagricultural sector is not the main sector supporting Bodebek's economy, but government support for the sustainability of this sector is still needed. The urban farming program is one of the alternatives to improve the agricultural sector in urban areas. Regarding the SME aspect, it is necessary to provide assistance from production, financing and marketing so that its existence is significant in helping to increase income and reduce poverty.
4. Development goals and strategies are more directed towards growth accompanied by equity. Inaccuracy in development planning can actually lead to absolute and relative poverty. On this basis, studies of poverty should use the variable per capita income compared to economic growth. Per capita income or GRDP data better describes purchasing power and the level of equitable distribution of development outcomes compared to economic growth.

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