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The Mediating Role of Age Productivity on Human Resources Development, Health Infrastructure, and Proverty Level

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ABSTRACT

Poverty is a classic problem in many regions in Indonesia, including the Bengkulu Province. There are several causes of poverty case in Bengkulu, three of which are low human resources, inadequate rural health infrastructure, and less productive population with productive working age. The purpose of the study is to examine (1) the influence of human resources management, health infrastructure, and productive age partially on poverty in Bengkulu Province, and (2) the influence of human resources, health infrastructure respectively through mediation of productive age on poverty in Bengkulu Province. This study uses a quantitative descriptive approach using secondary data. The research population is all districts/cities in Bengkulu Province totalling 9 districts and 1 city in 2010-2019. This study uses saturated sampling. The data was then processed and analyzed using SEM-PLS. The results of the study show that human resources proxied by the Human Development Index (HDI) had a positive effect on the poverty level, health infrastructure had no effect on the poverty level, productive age had no effect on the poverty level, productive age was not a mediating variable between resources and the poverty level, so that cannot be used as a mediating variable, and productive age does not mediate the effect of health infrastructure on poverty levels in Bengkulu Province.

Keywords: Human Resources, Health Infrastructure, Poverty Levels, Productive Age

JEL Classifications: M48

1. INTRODUCTION

The situation of poverty in general is a trigger for national economic growth and the difficulty of improving people's living standards. However, until the early twentieth century, public policies to address the problem of chronic poverty and destitution did not exist, the implication being that poverty was considered a way of life with little that could be done (Moges, 2013). The theory of growth and poverty states that when trying to reduce poverty it will slow down the rate of economic growth (Todaro and Smith, 2012). This is in line with the argument that countries with lower inequality will experience slower economic growth. This argument tends to refute the classical economic growth theory. This is the reason why it is important to analyze the impact of economic growth on poverty (Hariadi, 2009).

In theory, according to Becker (1962), Mincer (1958), Schultz (1961), the variable that is thought to have an effect on poverty is human capital (human resources/HR) which refers to the level of education of people living in certain areas. Human resource development is said to be very important in developing the quality of human resources which plays a very important role in reducing poverty. Early theories regarding this relationship originated from writings that believed that human resource development could invest in economic growth through education, health, and training which in turn would increase yields and contribute to economic growth. In the knowledge economy era, the key to international competition is the development of high-quality human resources (Wang and Liu, 2016).

Based on data from the statistical bureau of Bengkulu Province (BPS), property of human resources can be used as a benchmark

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in measuring the poverty level of the population, namely through the Poverty Depth indicator (P1) and the Poverty Severity Index (P2). The poverty depth index in urban areas of Bengkulu Province increased by 0.036 in September 2019 compared to the same period in the previous year. In rural areas which also experienced an increase of 0.113. For the poverty severity index in the same period, urban areas experienced an increase of 0.01 and in rural areas 0.04. Overall when compared between these two regions, it can be concluded that the poverty depth index and poverty severity index in rural areas are higher than in urban areas. There are several causes of poverty in Bengkulu, three of which are low human resources, inadequate rural health infrastructure, and less productive population with productive working age.

The theory used is the development of theories regarding the level of poverty, human resources, productive age of the population, and health infrastructure. Theoretically in the field of psychology, according to Sarlo (2019) that complex poverty is caused by two causes, namely: structural causes and cultural causes. Furthermore, according to Mani et al. (2013) the occurrence of poverty is caused by bad human behavior in making decisions. These bad behaviors include impulsive and intuitive behavior. This bad behavior is caused by a decrease in self-control, stress, and external negative pressure so that it adds to the burden of processing individual thoughts.

Through this study, it will also be known what the dimensions and indicators of each variable are as the main predictors of poverty in this province. The implication is that the findings of this study will be able to make a positive contribution to the creation of good governance that leads to good governance and poverty alleviation for the future which of course must start from each district/city which will then be accumulated gradually. comprehensive (one province).

2. LITERATURE REVIEW

2.1. Poverty and The Index

According to Lewis (1966), poverty is caused because someone is not able to enter the market competition. Patterson (2000) also supports Lewis's opinion. They argue that poverty is a cultural product. The product of culture begins with individual deficiencies in some form of physiological and mental development which causes individuals to lack in education and health. The children it carries will become increasingly uneducated and less healthy. As these conditions continue, they adjust their behavior to create an interdependent generation that sustains a culture of poverty (Jordan, 2004; Bradshaw, 2009).

Income poverty is closely related to the level of average income and the distribution of income relative to the average per capita or per household income. For countries with somewhat similar average income levels, income distribution has a direct effect on the incidence and depth of poverty. This relationship affects how income growth rates can be used for poverty alleviation purposes. In other words, countries with an initial egalitarian pattern of income distribution can translate their growth performance into strong reductions in the incidence and depth of poverty (Kanbur,

2005). Poverty alleviation can also be accelerated if the income distribution pattern in developing countries is more egalitarian (Fosu, 2011).

In order for this research to be more focused and focused, the theories and concepts used to measure the poverty variable in this study use a combination of theories and concepts proposed by (1) Gordon and Spicker (2007) with the dimensions of absolute poverty and relative poverty and, (2) World Bank (2001) with the dimensions of community income. So, the number of dimensions for this variable is three dimensions.

Meanwhile, the Central Bureau of Statistics defines poverty as an approach to the inability of the community to meet basic needs in terms of the economy, both food and non-food, with an average monthly per capita expenditure below the poverty line. The measure of poverty based on the method used by the Central Bureau of Statistics (2019) is the poverty line while the poverty rate is measured by the concept of the Head Count Index (HCI-P0) or calculating the number of poor people below the poverty line. The Human Development Report (HDR) and the Central Statistics Agency for Riau Province (2019) state that human development is a process to increase the choices people have. Among the many choices, the most important choice is to live a long and healthy life, have knowledge, and have access to the resources needed to live properly.

The measure of poverty based on the method used by the Central Bureau of Statistics (2019) is the poverty line while the poverty rate is measured by the concept of the Head Count Index (HCI-P0) or calculating the number of poor people below the poverty line, which is then called the Poverty Depth Index (IKM).

2.2. Human Resources Development Index

Economists agree that Human Resources (HR) is an important determinant of economic growth (Arrow, 1962; Aghion and Howitt, 1992). Human resource growth generally concludes the positive impact of both with the help of developed theories and available empirical evidence. The general conceptualization of the role of humans as a source of economic activity and economic growth refers to many attributes (Muhammad et al., 2016).

A large number of studies have found evidence that an educated workforce is a major determinant of economic growth (Barro, 1991; Mankiw et al., 1992; Barro and Sala-i-Marin, 1995). Other studies examine the importance of human resources as a substantial determinant of economic growth (Krueger and Lindahl, 2001).

The Human Development Index (HDI) has four human development indicators used in HDR which consist of (Alkire, 2010):

 The main aim of all development exercises is to improve the human condition and enlarge people's choices. Human development is a means to higher productivity. A wellmaintained, healthy, educated and skilled standby workforce is the most productive asset. Therefore, investment in these sectors is justified on the basis of productivity. This helps to reduce the rate of population growth.

- 2. Human development is also friendly to the physical environment. Deforestation, desertification, and soil erosion decrease as poverty declines.
- 3. Better living conditions and poverty reduction contribute to a healthy civil society and greater social stability.
- 4. Human development also helps reduce civil disturbances in society and in enhancing political stability.

In measuring the Human Development Index (HDI) using the theories and concepts put forward by the United Nations Development Program/UNDP (1990) adopted by BPS which refers to the HDI with three indicators including longevity and a healthy life, knowledge, and a decent standard of living.

2.3. Health Infrastructure

Infrastructure as the sum of the material, institutional, and personal facilities and data available to economic agents and which contribute to realizing an equitable distribution of remuneration for inputs that are commensurate with the allocation of resources according to the complete integration and maximum level of economic activity (Jochimsen, 1966). Based on some of the opinions above, it can be concluded that infrastructure is all forms of facilities and infrastructure found around the community's living environment aimed at improving the welfare of the community. To be able to optimize its objectives, the government issued a number of policies whose main goal is the existence of various existing infrastructures in accordance with their designation. According to Buhr (2003), the broadest economic version of the term 'infrastructure' refers to List Jochimsen's (1966) work on infrastructure theory, where Jochimsen aims to present a preparatory study for a modern theory of market economic development based on the study of infrastructure.

According to Clark et al. (1981) health infrastructure is the most important thing in order to reduce or alleviate poverty in an area because health is the main thing for humans to continue their daily activities. The role of health infrastructure in reducing poverty is more access to infrastructure services which also affects the realization of the Sustainable Development Goals (SDGs). The contribution of infrastructure to the SDGs is reflected in increasing productivity and welfare among the poor, thereby optimizing the coverage and quality of services offered through improving education, health, transportation services, energy, information technology and basic sanitation (Douthit and Alemu, 2016; Foster et al., 1984).

The measurement of health infrastructure refers to a study conducted by Mardiana et al (2017) using IK (Health Infrastructure) as a proxy, namely by using a comparison between the number of health facilities in the district and city areas to the total population of districts and cities.

2.4. Productive Age

The productive age population is considered as part of the population that takes part in ongoing employment activities. They are considered capable in the employment process and have the burden to bear the lives of residents who are included in the category of unproductive and non-productive population. The current

productive age population is not only dominated by people with an age range of over 20 years who have completed their education. Currently, many young people who are still in school have their own businesses. In some cities such incidents are common. The involvement of young people in work begins as assistants in family businesses, before finally starting their own business.

The productive age ranges from 15-64 years which is the ideal age for workers. In the productive period, in general, as you age, your income will increase, which also depends on the type of work you do. A person's physical strength to carry out activities is closely related to age because when a person's age has passed the productive period, his physical strength decreases so that productivity decreases and income also decreases. Thus, this study uses indicators for measuring productive age adopted from research by Anwar and Fatmawati (2018), namely by comparing the number of residents of productive age (15-64 years) in districts and cities to the total population of districts and cities.

2.5. Research Model and Hypotheses

The current study combines 3 variables (HR, health infrastructure, and productive age) to analyze poverty variables, especially those in Bengkulu Province today. This will also be a novelty in the current research. The urgency of this research will be known through which of the two exogenous variables and the two mediator variables that affect poverty in Bengkulu Province. Based on these factors, the main (dominant) causes of poverty in districts/cities in this province will also be known. Through this research, it will also be known what the dimensions and indicators of each variable are as the main predictors of poverty in this province. The implication is that the findings of this study will be able to make a positive contribution to the creation of good governance that leads to good governance and poverty alleviation for the future which of course must start from each district/city which will then be accumulated gradually. comprehensive (one province).

Exogenous variables (X) which consist of Human Development Index/HDI (X1), Health Infrastructure (X2). The mediator variable used is the Productive Age of the Population (M1) (Figure 1). The endogenous variable is poverty in Bengkulu Province (Y). Because there is no research that examines poverty in terms of the influence of the Human Development Index/HDI and Health Infrastructure with the mediation of the Productive Age Population variable. Hypotheses on this research are:

H1: Human Development Index/HDI has an effect on poverty in Bengkulu Province

H2: Health infrastructure affects poverty in Bengkulu Province

H3: The productive age of the population affects poverty in Bengkulu Province

H4: Human Development Index/HDI has an effect on poverty in Bengkulu Province through the productive age of the population H5: Health Infrastructure Affects Poverty in Bengkulu Province Through the Productive Age of the Population

3. RESEARCH METHOD

This study uses a quantitative descriptive approach, in accordance with the problems and objectives to be studied, namely to explain

the influence of human development resources (HDI) and health infrastructure on poverty levels mediated by productive age. The research approach used is explanatory research which will explain the position of the variables studied and the relationship between one variable and another through a hypothesis.

The research population used is all districts/cities in Bengkulu province. With a total of 9 districts and 1 city in Bengkulu Province in 2010-2019.

In this study, the measurement of human resources refers to research conducted by Faqihuddin (2010) using the Human Development Index (HDI) as a proxy. The formula for calculating HDI is as follows:

$$IPM = 1/3 Xi$$

= 1/3 [X(1)X(2)+X(3)]

Information:

X(1) = Life Expectancy Index.

X(2) = 2/3 (literacy index) + 1/3 (average length of schooling index).

X(3) = Adjusted Per Capita Consumption Index.

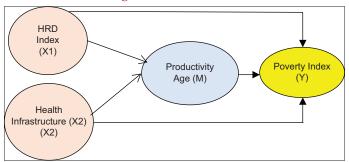
Health Infrastructure (HsI) is expenditure for the construction of health facilities and infrastructure carried out by the Bengkulu provincial government. In this study, the measurement of health infrastructure refers to the research conducted by Mardiana et al (2017) using IK (Health Infrastructure) as a proxy. Therefore, IK is calculated using the following formula:

$$HsI = \frac{Number\ of\ Regency\ and\ City\ Health\ Facilities}{JNumber\ of\ Regency\ and\ City\ Population}$$

The mediating variable used in this study is productive age (PA). The productive age is the age that produces goods and services. BPS takes age 15 years or older than the previous year's working age limit. The measurement of productive age was adopted from Anwar and Fatmawati (2018) research conducted by the following formula:

PA= Amount of Age 15-64 in Regency and City
Total Population of Regency and City

Figure 1: Research model



Source: adapted from Gordon dan Spicker (1999); World Bank (2001; 2002).

We operate path analysis techniques to examine the effect of the independent variable and the dependent variable and to analyze the direct and indirect intermediaries between the independent variables and the dependent variable through the mediating variable. The data analysis technique in this study used SEM-PLS.

4. RESULTS AND DISCUSSION

4.1. The Results of Measurement Model Test

The evaluation of the measurement model aims to see the influence between variables that will validate the model and test the reliability of its construct as the theory used and previous empirical research. This evaluation stage starts from testing the reliability of the construct using Composite Reliability (CR), Average Variable Extracted (AVE), and Cronbach's Alpha.

The outer model meets the convergent validity requirements for reflective indicators, if the loading factor is above 0.70 and the P-value is significant (<0.05), the loading factor between 0.40 and 0.70 should be considered to be maintained. The deletion of the 0.40-0.70 indicator is carried out if the impact of the deletion of the indicator can increase the average variance expected (AVE) and composite reliability (Table 1 and Figure 2).

To test the reliability of reflective constructs in this study, Cronbach's alpha, composite reliability and average variable extracted (AVE) bases were used with results showing that the values of all constructs were greater than Cronbach's alpha minimum >0.7, composite reliability 0, 70, and AVE 0.5.

Cronbach's Alpha value and Composite Reliability value of all research constructs is greater than 0.70. Thus, it can be concluded that all latent variable constructs meet the reliability test criteria. The high value of Cronbach's alpha and composite reliability in this study, because the calculated parameters are parameters that have been previously valid.

The validity test in this study was carried out using convergent validity and discriminant validity as described in the previous chapter. Convergent validity assessment is carried out by looking at the Average Variable Extracted (AVE) value with the criteria that if the AVE value is >0.5, then the indicators used have met the requirements of convergent validity (Hair et al., 2012). The results of the AVE value in this study are presented in Table 2.

Table 1: Result of measurement model test

Year	HDI	Health	Poverty	Productive Age
		Infrastructure (HI)	Index (PI)	(PA)
2010	0.998	0.918	0.981	1.000
2011	0.999	0.908	0.999	1.000
2012	1.000	0.960	0.999	1.000
2013	0.997	0.581	0.999	1.000
2014	0.996	0.665	0.999	1.000
2015	0.999	0.480	0.999	1.000
2016	0.999	0.935	0.999	1.000
2017	0.998	0.924	1.000	1.000
2018	0.996	0.916	0.996	1.000
2019	0.994	0.902	0.995	1.000

Source: data processed 2020

IPM 2014 IPM 2015 0.996 0.997 0.999 0.998 0.996 0.994 0.999 IPM 1.030 0.908 6.999 0.999 0.960 0.58 0.999 0.665 -0.999 0.935 0.999 Infrastruktu **Tingkat** 0.996 TK 2018 Usia Produktif 1.000 1.000 1.000 1.000 1.000 1.000 UP_2017

Figure 2: Measurement model test

Testing the measurement model (outer model) through three assessment criteria, namely Convergent Validity, Discriminant Validity, and Composite Reliability. The measurement results after going through two stages show that all indicators have a loading factor value of > 0.50 so it can be concluded that the outer model has met the criteria for convergent validity.

4.2. Result of Structural Model Test

The results of testing the structural model (inner model) can be seen in the R-square (R^2) for the dependent variable, the path coefficient value of the t-value of each path between variables. The path coefficient value and t-value of each path will be explained in the sub-discussion of the results of hypothesis testing. The value of R^2 is used to measure the level of variation of changes in the independent variable to the dependent variable (Hair et al., 2012). The higher the R^2 value, the better the prediction model and the proposed model.

Based on Table 3, the R² value for the poverty level variable is 0.480, meaning that the Poverty level can be explained by 48% by the variation of the variables (HDI, Health Infrastructure, and Productive Age), and the remaining 49% is influenced by other factors not included in this research model. The R² value for the productive age variable is 0.749, meaning that the productive age can be explained by 75% by variables (IPM, and Health Infrastructure) and the remaining 25% is influenced by other factors not included in this research model. Structural model testing (inner model) and hypothesis testing are measured or evaluated with a value of determination (R²). Figure 3 is the result of structural model measurement based on SEM.

4.3. Hypotheses Test

We refer to the critical ratio value which is ± 1.96 at a significance level of 0.05. If the critical ratio value is greater than ± 1.96 then

Table 2: Result Of AVE Estimation

Variable	Average Variable Extracted					
	(AVE)					
Human Development Index (HDI)	0,995					
Health Infrastructure	0,698					
Productive Age	1,000					
Poverty Index	0,993					

Source: data processed 2020

Table 3: Result of AVE estimation

Variable	R-square	Adjusted R-square
Productive Age	0,783	0,749
Poverty Level	0,480	0,350

Source: data processed 2020

the causal relationship between the two constructs is significant. The existence of a positive or negative sign on the critical ratio value indicates a directly or inversely proportional relationship between the constructs tested in the study. The path coefficient table on the Smart PLS output can be seen in Table 4.

Based on the P-value and path coefficient value to see the influence of HR on the poverty level, it can be concluded that the HR variable has a positive and proven significant effect on the poverty level. The results of testing hypothesis 1 (H1) which states that human resources can increase the level of poverty (supported). The higher the human resources, the human resources owned by the Regency and City in Bengkulu Province will have an impact on increasing the level of poverty.

Health infrastructure has a positive and insignificant effect on the level of poverty. This can be seen from the P > 0.05 and the positive path coefficient value. A positive value on the path coefficient indicates the influence between health infrastructure and poverty

IFM_2010

IFM_2011

IFM_2012

IFM_2013

IFM_2014

IFM_2015

IFM_2016

IFM_2016

IFM_2016

IFM_2017

IFM_2018

IFM_2010

IFM_2011

IFM_2012

IFM_2013

IFM_2014

IFM_2015

IFM_2016

IFM_2016

IFM_2017

IFM_2016

IFM_2017

IFM_2018

IFM_2018

IFM_2018

IFM_2019

IFM_20

Figure 3: Result of structural model

Table 4: Structural model hypothesis testing results

Table 4. Structural model hypothesis testing results							
Direct Effect without mediation							
Path	Path Coeficient	Standar Deviation	t-statistic				
Relationship							
IPM →TK	1,030	0,500	2,059*				
$IK \rightarrow TK$	0,323	0,648	0,499				
$UP \rightarrow TK$	-0,214	0,309	0,694				
Direct Effect with mediation							
Path	Path Coeficient	Standar Deviation	t-statistic				
Relationship							
IPM \rightarrow TK	-0,166	0,201	0,827				
$IPM \rightarrow UP$	0,355	0,247	1,357				
$IK \rightarrow TK$	0,183	0,256	0,714				
$IK \rightarrow UP$	-0,162	0,181	3,382**				

levels is unidirectional. These results indicate that human resources have an insignificant role in increasing the level of poverty.

Based on the P-value and path coefficient values to see the effect of health infrastructure on the poverty level, it can be concluded that the health infrastructure variable has a positive effect and is proven not to be significant on the poverty level. The results of testing hypothesis 2 (H2) which states that health infrastructure has not been able to increase the level of poverty (rejected). The more health infrastructure owned by the Regency and City has no effect on the poverty level in Bengkulu Province.

Productive age has a negative and insignificant effect on the level of poverty. This can be seen from the P > 0.05 and the positive path coefficient value. A positive value on the path coefficient shows the opposite effect between productive age and poverty levels. These results indicate that the productive age has an insignificant role in reducing poverty levels.

Based on the P-value and path coefficient value to see the effect of productive age on the poverty level, it can be concluded that the variable of productive age has a negative effect and is proven to be insignificant to the poverty level. The results showed that the productive age had no effect on the level of poverty. The results of testing hypothesis 3 (H3) which states

that the productive age has not been able to reduce the poverty level (rejected).

Path analysis result indicate that the coefficient value of the HR path to the poverty level before being included in the mediation variable and HR to the poverty level after being included in the mediation variable decreased from 1.030 to -0.166 and the P-value which was initially significant (<0.05) became insignificant. (0.17). According to Hair et al. (2012), when the value of the path coefficient of the independent variable to the dependent value decreases and is not significant, then the form of mediation that occurs is full mediation. In addition, the results of the direct influence of human resources on the productive age and the results of the effect of the productive age on the poverty level have insignificant results. Thus, it can be concluded that there is no indication that productive age mediates the influence of human resources on poverty levels. Thus, hypothesis 4 (H4) which states the influence of human resources on the level of poverty with productive age as a mediating variable is rejected.

The coefficient value of the health infrastructure path to the poverty level before being included in the mediation variable and health infrastructure to the poverty level after the mediation variable was included decreased from 0.323 to 0.183 and the P-value which was initially insignificant (>0.05) became insignificant (0.77). According to Hair et al. (2012), when the value of the path coefficient of the independent variable to the dependent value decreases and is not significant, then the form of mediation that occurs is full mediation. In addition, the results of the direct effect of health infrastructure on the productive age and the results of the effect of the productive age on the poverty level which were initially insignificant became significant. Thus, it can be concluded that there is no indication that productive age mediates the effect of health infrastructure on poverty levels. Thus, hypothesis 5 (H5) which states the effect of health infrastructure on poverty levels with productive age as a mediating variable is rejected.

4.4. Discussion

The results of this study indicate that districts and cities in Bengkulu Province have good human resources with a high average length of education. However, based on the results of observations and observations that have been made by researchers, there is a phenomenon that many people who are categorized as having good and qualified education choose to find work outside Bengkulu Province in the hope of getting a better job for their future. While the workforce in Bengkulu Province itself is far more people who work as employees in the informal private sector. That's why poverty in Bengkulu Province remains in a position that is not reduced.

Poverty is seen not only in the sense of lack of income or adequate consumption, but as a state of deprivation that includes socio-economic aspects of life. The use of one indicator for "poor" is not sufficient to capture poverty conditions. There is also limited value in suggesting areas of policy formulation and program interventions. A more useful approach to understanding the conditions of poverty and the processes that generate it is to expand the analysis of poverty in a multi-dimensional manner and in addition to examining aspects of the welfare of the poor including their access to certain goods, services and functions.

The results of this study are in line with Yusuf and Dai (2020) which revealed that HDI has a positive effect on poverty levels. Human resource development and poverty alleviation are important. This issue has important policy implications because appropriate investments to improve the quality and quantity of human resources can be an important element in poverty alleviation strategies. In this regard, interventions in areas such as education, skills building, health and nutrition can have a positive impact on the characteristics of the labor market with large potential returns and can reduce poverty. With economic reforms progressing, a skilled, healthy, trained and literate workforce is much more likely to attract foreign investment and contribute to the success of a region's growth strategy. The current study explores the relationship between human resource development and poverty to provide a broad range of policy options, particularly in the context of labor demand constraints. For this reason, the government needs to focus on developing existing human resources in order to meet the demands of the labor market so as to reduce population poverty.

The low productive age results in limited self-development capabilities and causes narrow employment opportunities so that poverty in Bengkulu Province remains high. People living below the poverty line have limited access to productive age, thus causing low quality of human resources which has an impact on productivity levels, so that the income of the poor is low.

The low productive age causes Bengkulu Province to have minimal mastery of science and technology. Most of the population of Bengkulu Province still lacks good skills and expertise. As a result, most residents of Bengkulu Province choose to work in sectors that do not require special skills. Productive age has no significant effect on data poverty due to the gap between productive age and employment level in Bengkulu Province. The gap is a mismatch between the work obtained and the productive age, resulting in low income. According to Ragnar Nurkse, low income has implications for low savings and investment. This low saving and investment causes underdevelopment and so on, resulting in poverty.

This study is not in accordance with the results of research conducted by Clark et al. (1981) found that productive age can reduce the level of poverty in an area balanced by health facilities and infrastructure. This indicates that the increasing productive age is not accompanied by better health infrastructure which has an impact on the increasing poverty rate, marked by a decrease in the number of residents in the district/city of Bengkulu Province to take advantage of the health infrastructure prepared by the government.

One way to describe individual capabilities is through the educational dimension. The higher the education, the higher the individual's capability so that it increases the individual's opportunity to break the cycle of poverty. Seeing the importance of the education dimension, development is needed to increase individual capabilities. Development can be classified into two types, namely physical development and non-physical development, according to Todaro (2000, p. 20). This theory should be adopted by the authorities to be able to process in reducing poverty.

5. CONCLUSSION

In this study we raised the health infrastructure variable to measure poverty in Bengkulu Province. There is a fundamental difference found that many previous studies discussed the relationship between infrastructure to public spending and economic growth (Cohen and Paul, 2004; Czernich et al., 2011; Daido and Tabata, 2013; Dalenberg and Partridge, 1997; Démurger, 2001; Duffy-Deno and Eberts, 1991; Elburz et al., 2017; Esfahani and Ramırez, 2003). This research is based on the opinion of Cohan (2017) that health, including through health infrastructure, can be a factor that will affect the poverty level of the population.

The poverty variable uses a combination of theories and concepts proposed by Gordon and Spicker (2007) with the dimensions of absolute poverty and relative poverty, while Pouliken (2010) uses the dimensions of people's income. The use of a combination of both theories and concepts with the consideration that the theories and concepts of Gordon and Spicker (2007) are very common and very widely used by other researchers. Basically, relative poverty is also a relative dimension, so this dimension is considered less able to provide a real picture of poverty in Bengkulu Province. Therefore, the community income dimension is added by (Pouliken, 2010). So, the number of dimensions for this variable is three dimensions. The combination of the two opinions is the first novelty in this study. The current study combines 3 variables (HR, health infrastructure, and productive age) to analyze poverty variables, especially those in Bengkulu Province today.

In poverty alleviation, it cannot be seen as one-dimensional or homogeneous, so interventions that fail to take into account the specific status and conditions of the poor will inevitably fail. Programs need to be tailored to meet the requirements of specific target groups, as there is considerable differentiation among the poor in terms of their ability to benefit from the program. In particular, the core poor are people who are difficult to reach, and given their particular circumstances and attributes.

The problem of poverty covers a wider range than just a mere monetary problem (World Bank, 2005). There are many aspects or dimensions that can cause the phenomenon of poverty, such as health, demographic structure, accessibility, economy, education, social capital, and resources.

REFERENCES

- Adeoti, O., Falegan, T., Idowu, D.O.O. (2001), Could fuelwood use contribute to household poverty in Nigeria? Biomass and Bioenergy, 21(3), 205-210.
- Aghion, P., Howitt, P. (1992), A model of growth through creative destruction. Econometrica, 60(2), 323-351.
- Anwar, K. (2018), Pengaruh Jumlah Penduduk usia Produktif, Kemiskinan dan Inflasi Terhadap Pertumbuhan Ekonomi di Kabupaten Bireuen.
- Arrow, K.J. (1962), The economic implications of learning by doing. Review of Economic Studies, 29(3), 155-173.
- Barro, R. (2001), Human capital and growth. American Economic Review, 91(2), 12-17.
- Becker, G.S. (1962), Investment in human capital: A theoretical analysis. Journal of Political Economy, 70(5), 9-49.
- Bradshaw, T.K. (2009), Theories of poverty and anti-poverty programs in community development. Community Development, 38(1), 7-25.
- Clark, S., Hemming, R., Ulph, D. (1981), On indices for the measurement of poverty. The Economic Journal, 91(362), 515.
- Cohen, J.P., Paul, C.J.M. (2004), Public infrastructure investment, interstate spatial spillovers, snd manufacturing costs. Review of Economics and Statistics, 86(2), 551-560.
- Czernich, N., Falck, O., Kretschmer, T., Woessmann, L. (2011), Broadband infrastructure and economic growth. The Economic Journal, 121(552), 505-532.
- Daido, K., Tabata, K. (2013), Public infrastructure, production organization, and economic development. Journal of Macroeconomics, 38, 330-346.
- Dalenberg, D.R., Partridge, M.D. (1997), Public infrastructure and wages: Public capital's role as a productive input and household amenity. Land Economics, 73, 268-284.
- Démurger, S. (2001), Infrastructure development and economic growth: An explanation for regional disparities in China? Journal of Comparative Economics, 29(1), 95-117.
- Douthit, N.T., Alemu, H.K. (2016), Social determinants of health: Poverty, national infrastructure and investment. BMJ Case Rep 2016;2016:bcr2016215670.
- Duffy-Deno, K.T., Eberts, R.W. (1991), Public infrastructure and regional economic development: A simultaneous equations approach. Journal of Urban Economics, 30(3), 329-343.
- Elburz, Z., Nijkamp, P., Pels, E. (2017), Public infrastructure and regional growth: Lessons from meta-analysis. Journal of Transport Geography, 58, 1-8.
- Esfahani, H.S., Ramırez, M.T. (2003), Institutions, infrastructure, and economic growth. Journal of Development Economics, 70(2), 443-477.
- Faqihudin, M. (2010), Human DEVELOPMENT INDEX (HDI) Salah Satu Indikator Yang Populer Untuk Mengukur Kinerja Pembangunan Manusia. Cermin, No. 047.
- Foster, J., Greer, J., Thorbecke, E. (1984), Notes and comments a class

- of decomposable poverty measures. Econometrica Society, 52(3), 761-766.
- Fosu, A.K. (2011), Growth, Inequality and Poverty Reduction in Developing Countries: Recent Global Evidence (No. 1; Working Paper UNU-WIDER, Helsinki.).
- Gordon, D. Spicker, P. (2007), Poverty: An International Glossary (Poverty). Zed.
- Hariadi, P. (2009), Economics growth, income distribution, and poverty in Central Java. Economic Journal of Emerging Markets, 1(3), 219-231.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., dan Ronald L. (2012), Multivariate Data Analysis: A Global Perpective. 7th ed. New Jersey: Pearson
- Jochimsen, R. (1966), Theorie der Infrastruktur: Grundlagen der Marktwirtschaftlichen Entwicklung. Tübingen: Mohr Siebeck Verlag.
- Jordan, G. (2004), Causes of poverty, cultural vs. structural: Can there be a synthesis? Perspectives in Public Affairs, 57, 18-34.
- Kanbur, R. (2005), Growth, inequality and poverty: Some hard questions. Journal of International Affairs, 58(2), 223-232.
- Krueger, A., Lindhal, M. (2001), Education for growth: Why and for whom? Journal of Economic Literature, 39(4), 1101-1136.
- Lewis, O. (1966), The culture of poverty. American Journal, 215(4), 19-25.
 Mani, A., Mullainathan, S., Shafir, E., Zhao, J. (2013), Response to comment on poverty impedes cognitive function. Science, 342(6163), 976-981.
- Mankiw, N.G., Romer, D., Weil, D. (1992), A contribution to the empirics of economic growth. Quarterly Journal of Economics, 107(2), 407-437.
- Mardiana, I.W., Budhi, M.K.S., Swara, I.W.Y. (2017), Analisis pergeseran struktur ekonomi dan sektor unggulan di kabupaten tabanan Provinsi Bali. E-Jurnal EP Unud, 6(3), 414-444.
- Mincer, J. (1958), Investment in human capital and personal income distribution. Journal of Political Economy, 66(4), 281-302.
- Moges, A.G. (2013), Economic growth, inequality and poverty in developing countries: Policy issues and challenges. He International Journal of Economic Policy Studies, 8(1), 41-66.
- Muhammad, A., Egbetokun, A., Memon, M.H. (2016), Human capital and economic growth: The role of governance. Pakistan Development Review, 54(4), 529-548.
- Patterson, J.T. (2000), America's Struggle Against Poverty in the Twentieth Century. 4th ed. Cambridge, Massachusetts: Harvard University Press.
- Sarlo, C.A. (2019), The Causes of Poverty. Fraser Institute. Available from: http://www.fraserinstitute.org
- Schultz, T.W. (1961), Investment in human capital. The American Economic Review, 51(1), 1-17.
- Todaro, M.P., Smith, S.C. (2012), Economic Development. 11th ed. Hoboken: Prentice Hall.
- Wang, Y., Liu, S. (2016), Education, human capital and economic growth: Empirical research on 55 countries and regions (1960-2009). Theoretical Economics Letters, 6(2), 347-355.
- World Bank. (2001), World Development Report 2000/2001: Attacking Poverty. Open Knowledge Repository. Available from: https://openknowledge.worldbank.org/handle/10986/11856
- World Bank. (2002), Dying for Change: Poor People's Experience of health and Ill-Health. Washington, DC: World Bank.
- Yusuf, L.A., Dai, S.I. (2020), The impact of unemployment and human development index on poverty in gorontalo province 2008-2017. Jambura Equilibrium Journal, 2, 7-16.