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## ENHANCE OF FORMULATION INFRASTRUCTURE FOR INCREASING ECONOMIC IN PAHLAWAN VILLAGE, TANJUNG TIRAM BATUBARA DISTRICT

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### ABSTRACT.

This Research described about implementation of infrastructure, community participation and institutions in the village of Heroes, Tanjung Tiram sub-district, Batubara district. Wheres the potential of natural resources in the village of Pahlawan is quite large if maximized properly with the development of good infrastructure will produce good growth. This study aims to look at an infrastructure development model offered that includes infrastructure, community participation and institutions in the village of Pahlawan, Tanjung Tiram sub-district, Batubara district, which is needed in economic growth in Tanjung Tiram sub-district, coal district, where through this model formation can increase economic growth in the sub-district. Tanjung Oyster Coal District. This participation can be seen from the availability of infrastructure facilities that will encourage even greater potential that can be managed by the community so that it can provide economic added value for the economic growth of rural communities. Village Institutions has a positive and significant relationship to economic growth, which means the role of Village Institutions in developing high infrastructure encourages economic growth. Village Institution is seen from the existence of village institutions that are able to boost the village economy. Fishbone formulation shows that there is a problem in implementing infrastructure in increasing economic growth. This problem arises from various aspects that are indicators of infrastructure and economic growth itself. This problem can be resolved with a policy that is targeted and inclusive of the target audience that can create synergies between community institutions, government, banking and business actors in creating a prosperous economy. Education, health and employment infrastructure are the main pillars in the realization of the economy.

**Keywords:** *Infrastructure, Community Participation, Institutional*



## **I. INTRODUCTION**

The development of an area aims to improve welfare and realize social justice for all levels of society. For this reason, development requires the right approach, in order to produce growth accompanied by equity. Infrastructure plays an important role in increasing investment and expanding the reach of community participation, as well as equitable distribution of development outcomes.

Infrastructure is a driver of economic growth. From the allocation of public and private financing, infrastructure is seen as a locomotive of national and regional development. Infrastructure also has an important influence on improving the quality of life and human well-being, among others in increasing the value of consumption, increasing labor productivity and access to employment, and increasing real prosperity. Infrastructure also has an important influence in increasing the value of consumption, increasing labor productivity and access to employment. The nature and type of infrastructure required by an area is influenced by natural characteristics and the pattern of population distribution that is unique to the area. Infrastructure is not only needed to increase competitiveness in order to encourage more investment, production and trade activities, but also to accelerate equitable development so that poverty and unemployment can be reduced.

Pahlawan Village, located in Tanjung Tiram Subdistrict, Batu Bara Regency, is a village located in the seafront area with 98% of the community living as fishermen and most of the fishermen are only sea laborers. Desa Pahlawan has an area of 173.79 km<sup>2</sup> and a population of 5,567 with details of 1,452 households, 2,649 men and 2,918 women of which more than 50% are classified as poor families.

Where from the initial observations that the author made in the village of Pahlawan it is known that the village development is still very low is not feasible, the community of Pahlawan village has not been well aware in terms of disposing of trash in its place as well as poor drainage, also exacerbated by the lack of clean water infrastructure starting from inadequate water sources and inadequate water pipelines as well, so the community must buy from other people who have drilled wells.

In fact many development programs are not in accordance with what is needed by the community because the government has not yet optimized the community's role in the planning, implementation and evaluation process. To achieve the success of rural community development, all development planning,



implementation and evaluation programs must involve the community in the context of developing their territory because they will later use and assess the success or failure of development in their area.

## **II. LITERATURE REVIEW.**

### **2.1. Economic growth.**

The level of welfare of a country is measured by economic growth. Economic growth is a process of increasing output per capita in the long run (Boediono, 1999: 1). Some economists argue that a trend for per capita output is not enough. There are some more stringent requirements to the notion of economic growth that is if there is a tendency (output per capita to increase) that comes from the internal processes of the economy. The growth process must be self-generating, meaning that the growth process itself generates the strength or momentum for the onset of growth in the next period.

The definition of economic growth is widely written by economists, including Parkin and Bede (1992: 53) states: Economic growth is the rate of change of real GNP from one year to the next year. "While Mankiw (1994: 76) states: To measure economic growth, economists use data on gross domestic product, which measures the total income of everyone in the economy and Samuelson and Nordhaus (1995: 750) states: economic growth is an increase in the total output of a nation's over time, that is measured as the annual rate of increase in a nation's real GDP or real GDP stops.

Gross Regional Domestic Product (GRDP) is one of the important indicators to determine the economic conditions in an area in a certain period, both on the basis of current prices and on the basis of constant prices. One important indicator to determine the economic conditions in a region in a given period is the Gross Regional Domestic Product (GRDP) data, both on the basis of current prices and on a constant basis. GRDP is basically the amount of added value generated by all business units in a particular area, or is the total value of goods and final services produced by all economic units (Bojonegoro in figures, 2011).

GRDP at current prices illustrates the added value of goods and services calculated using prices that apply each year, whereas GRDP at constant prices shows the added value of those goods and services that are calculated using prices that apply at a certain year as a basis.

Economic development carried out both in urban and rural areas within a certain period of time will bring a change that is the level of economic growth



followed by changes in the structure and style of economic activity in a region or better known as changes in economic structure. The economic structure can be interpreted as the distribution / distribution of each component that forms the economy of a region and is usually presented as a percentage. Economic growth is a dynamic measure that is used to see movements or changes in the level of the economy between periods. This change or movement is measured by one measure / one period called economic conditions in the base year.

In the macroeconomic concept, government expenditure for the purchase of goods and services is an injection to the economy that has an impact on economic growth. Government expenditure is exogenous expenditure, the amount of which is determined by the extent of the availability of government budget obtained from tax (fiscal policy). An injection of government expenditure in this case the development of infrastructure in an area not only increases income in the area concerned, but also spreads the driving force to the surrounding areas that are interconnected through increased imports. Government expenditure is usually aimed at providing infrastructure in the form of public facilities, and in the form of direct transfers aimed at overcoming the problem of poverty and income inequality.

## **2.2. Economic Growth Indicator**

According to Wikipedia (2018) indicators or factors that influence economic growth are:

### **a) Human Resources Factor**

Similar to the development process, economic growth is also influenced by HR. Human resources are the most important factor in the development process, the speed of the development process depends on the extent to which human resources as the subject of development have sufficient competence to carry out the development process by building infrastructure in the regions.

### **b) Natural Resource Factors**

Most developing countries rely on natural resources in carrying out their development processes. However, natural resources alone do not guarantee the success of the economic development process, if they are not supported by the ability of human resources to manage the available natural resources. Natural resources in question are characterized by soil fertility, mineral wealth, mining, forest product wealth and marine wealth.

**c) Factors of Science and Technology** The development of science and technology which is increasingly rapid encouraging the acceleration of the development



process, the change of work patterns that were originally using human hands replaced by sophisticated machines have an impact on aspects of efficiency, quality and quantity of a series of economic development activities undertaken and ultimately result in accelerated growth rate economy.

#### d) Cultural Factors

Cultural factors have their own impact on economic development undertaken, these factors can function as a generator or driver of the development process but can also be a barrier to development. Cultures that can encourage development include hard work and smart, honest, tenacious and so on. As for cultures that can hinder the development process including anarchist, selfish, wasteful, KKN (Corruption, Collusion and Nepotism), and so on.

#### e) Capital Resources

Human capital resources are needed to process natural resources and improve the quality of science and technology. Capital resources in the form of capital goods are very important for the development and smooth development of the economy because capital goods can also increase productivity.

## **2.2. Infrastructure development**

Economic infrastructure has an important role in driving the performance of a country's economic growth. Differentiation of infrastructure is also often based on investments made in the infrastructure. The discussion on infrastructure tends to lead to the discussion of public goods. By understanding the nature of infrastructure as public goods, based on theory infrastructure has an externality character. This condition is in accordance with its nature where the infrastructure is provided by the government and for each party that uses the infrastructure does not pay directly.

Based on Presidential Regulation No. 42/2005 concerning the Committee for the Acceleration of Infrastructure Provision, it explains that several types of infrastructure must be regulated by the government, namely transportation infrastructure, road infrastructure, water infrastructure, drinking water and sanitation infrastructure, telematics infrastructure, electricity infrastructure, and oil transportation infrastructure. and natural gas. The classification of infrastructure above is categorized as basic infrastructure, because it is needed by the wider community so it needs to be regulated by the government regarding its provision.

Infrastructure such as electricity, roads and clean water has a positive influence on the economy in Indonesia. Electricity has the most important role in the production process. Therefore, infrastructure development policies to improve



Indonesia's economy in the face of the global crisis are very appropriate and need to get support from various parties (Prasetyodan Firdaus, 2009).

### III. RESEARCH METHODS

Collect of data through questionnaires to the community and the apparatus of the Village of Heroes of Tanjung Tiram District with a Likert scale measurement of 95 respondents. The previous questionnaire was conducted by a pilot study analyzing the validity and reliability of 30 respondents outside the sample. The operationalization of variables and their measurements are as follows:

**Table 1.** Operasional Variabel

No	Variable	Defenition	Indicator
1.	Infrastructur	All basic structures and facilities, both physical and social (for example buildings, roads and electricity supplies) needed for operational activities of the community.	Community Participation - The role of the community is as a strategy. - The role of the community as a policy. - Community participation as acommunication tool. - Community participation as a tool for resolving. Village Institution - Village Office - Youth organization - LPMD (Village Community Empowerment Institute) - Empowerment of Family Welfare (PKK) - RT / RW - Microfinance Institutions (LKM)
2.	Economic Growth	Long-term rise in a country's ability to provide a growing number of types economic goods to ipopulation. This capability grows in accordance with technological progress, and the institutional and ideological adjustments that it needs	- - Human Resources Factor - - Natural Resource Factors - - Factors of Science and Technology - - Capital Resource Factors



In this study data analysis uses the Partial Least Square (PLS) approach. PLS is a Structural Equation Modeling (SEM) equation model based on components or variants. According to Ghozali (2006), PLS is an alternative approach that shifts from a covariant-based SEM approach to variant-based.

Covariance-based SEM generally tests causality / theory while PLS is more predictive model. PLS is a powerful analysis method (Ghozali, 2006), because it is not based on many assumptions.

Parameter estimates obtained with PLS can be categorized into three. First, the weight estimate is used to create a score of latent variables. Second, it reflects the path estimate (path estimate) that connects the latent variable and between the latent variable and its indicator (loading). Third, related to the means and location parameters (regression constant values) for indicators and latent variables. To obtain these three estimates, PLS uses a 3-stage iteration process and each iteration stage produces an estimate. The first stage, produces a weight estimate, the second stage produces estimates for the inner model and outer model, and the third stage produces an estimate of means and location (Ghozali, 2006).

#### **IV. RESULTS & DISCUSSION**

There are three criteria in using data analysis techniques with SmartPLS to assess the outer model, namely Convergent Validity, Discriminant Validity and Composite Reliability. Convergent validity of the measurement model with reflexive indicators is assessed based on the correlation between item scores / component scores estimated with PLS software. Individual reflexive measures are said to be high if they correlate more than 0.70 with the construct measured. But according to Chin, 1998 for the early stages of research on developing a measurement scale of loading values 0.5 to 0.6 was considered sufficient. In this research, a loading factor limit of 0.60 will be used.

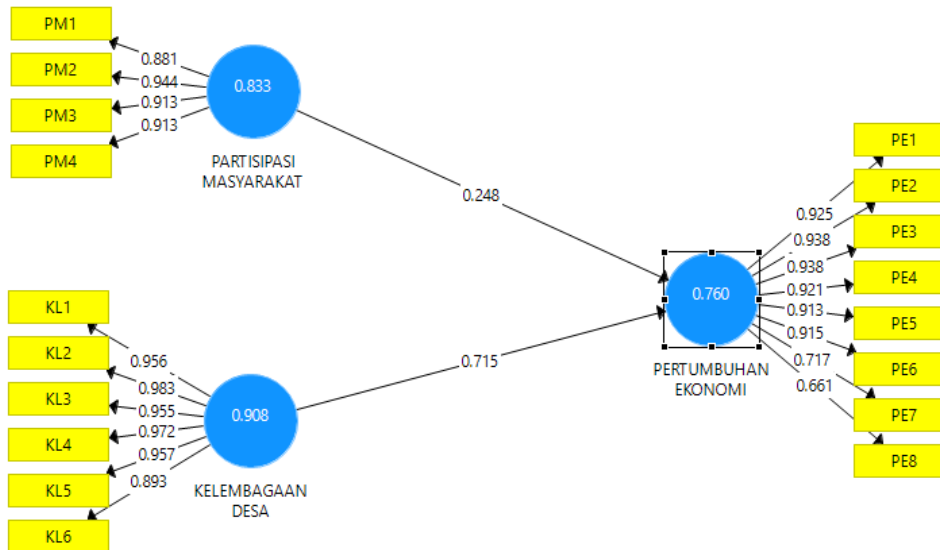


Figure 1. Criteria PLS.

Tables 2. Outer Loadings (Measurement Model)

Variables	Indicator	AVE
DEVELOPMENT INFRASTRUCTURE	PM1	0.881
	PM2	0.944
	PM3	0.913
	PM4	0.913
	KL1	0.956
	KL2	0.983
	KL3	0.955
	KL4	0.972
	KL5	0.957
ECONOMIC GROWTH	KL6	0.893
	PE1	0.925
	PE2	0.938
	PE3	0.938
	PE4	0.921
	PE5	0.913
	PE6	0.915
	PE7	0.717
PE8	0.661	





The results of processing using SmartPLS can be seen in Table 2. The outer model value or the correlation between constructs and variables has fulfilled convergent validity because the indicators that have a loading factor value above 0.60 so that it is worth continuing in the next analysis. Discriminant validity is carried out to ensure that each concept of each latent variable is different from the other variables. The model has good discriminant validity if each loading value of each indicator of a latent variable has the greatest loading value with another loading value of another latent variable.

## **V. CONCLUSION.**

The formulation of this research model uses the Fishbone approach in breaking down and implementing infrastructure development and economic growth. The basic function of the Fishbone formulation is to identify and organize the causes that might arise from a specific effect and then separate the root causes. It is often found that causes are possible and in most cases have to test whether the cause for the hypothesis is real, and whether enlarging or reducing it will produce the desired results. Basically the Fishbone diagram can be used for the following needs:

- a) Helps identify the root cause of a problem
- b) Help generate ideas for solutions to problems,
- c) Assist in further investigation or fact finding,
- d) Identifying actions (how) to create the desired results,
- e) Discuss the issue completely and neatly,
- f) Generate new thoughts. So the discovery of Fishbone diagrams provides convenience and becomes an important part of solving emergent problems.

The application of Fishbone diagrams can help us to find the root causes of problems, especially in poverty alleviation where the process is famous for the large variety of variables that have the potential to cause problems. If the problem and the cause are known with certainty, then actions and corrective steps will be easier to do. With this diagram, everything becomes clearer and allows us to be able to see all the possible causes and find the real root of the problem.



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