Research Paper

Effect of Sea Transportation Mobility on Gross Regional Domestic Product in East Kalimantan Province

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ABSTRACT

The purpose of this research is to analyze effect of sea transportation mobility on gross regional domestic product in East Kalimantan Province. The type of research used is quantitative research. Secondary data obtained from East Kalimantan Provincial Transportation Service and the East Kalimantan Central Statistics Agency, as well as other data sources that are considered to support this research, data taken from 2012 to 2021. Data analysis uses multiple linear regression. The research results show that number of passengers has a positive and significant effect on gross regional domestic product in East Kalimantan Province. Number of transportations has a positive and significant effect on gross regional domestic product in East Kalimantan Province.

Keywords: Number of Passenger, Number of Transportation, Gross Regional Domestic Product

INTRODUCTION

Indonesia's geographical condition is known as an archipelagic country. As an archipelagic country, sea transportation is a dominant and important means of facilitating relations between islands throughout Indonesia. Social relations between citizens and distribution channels are also connected by sea transportation. Sea transportation facilities have a positive impact on Indonesia, especially in areas that have ports. The port, which is a maritime transportation node, is a connecting facility with other areas to carry out trade activities. Ports have an important role in the country's economy to create economic growth. According to Article 1 Number 1 of the Minister of Transportation Regulation Number 51 of 2015 concerning the Implementation of Sea Ports, a port is a place consisting of land and surrounding waters with certain limits as a place for government activities and economic activities which are used as a place for ships to dock, dock, board and disembark passengers or Loading and unloading of goods equipped with shipping safety facilities and port supporting activities as well as a place for intra and inter-mode transportation. On this basis, it can be said that ports, as a form of transportation infrastructure, can generate economic activity in a region because they are part of the chain of transportation and logistics systems.

Collector ports are porting whose main function is to serve domestic sea transportation activities, transshipment of medium volume domestic sea transportation, and as a place of origin and destination for passengers or goods, as well as ferry transportation with service coverage between provinces. A feeder port is a port whose main function is to serve domestic sea transportation activities, transshipment of limited quantities of domestic sea transportation, as a feeder for main ports and collecting ports, and as a place of origin

and destination for passengers and goods, as well as ferry transportation with a range of services. within the province. Construction or development of transportation facilities can also have a positive impact on an area (Fisu, 2018). Transportation is closely related to accessibility, where accessibility is a factor that really determines the organization of space in urban areas. According to Fisu (2016), one of the characteristics of a city or zone that can influence the choice of transportation mode is population density and distance from the city center.

The role of ports in economic development is increasing along with the increasing importance of ports in logistics activities, especially intermodal or multimodal transportation (Mandasari, 2017). Apart from that, ports are usually also the place where a city or civilization begins and there are quite a few cultural heritage buildings and colonial buildings in Nurhijrah and Fisu (2019) urban areas, especially port cities. One of the important and strategic roles of a port in its activities contributes greatly to industrial, economic and trade growth and is a business sector that contributes to national economic development (Gultom, 2017). One of the goals of a country is to increase its economic growth. One measure of economic growth is national income. The national income of a country can show how much overall economic activity is. The concept of national income is the measure most often used as an indicator of economic growth but is not the only indicator of economic growth. Economic growth is a process, not a picture of the economy in a certain period, there is development or change and use of time. The problem of economic growth in an area depends on many factors, one of which is government policy itself. These government policies must be recognized and identified appropriately so that economic growth can be achieved in an area. The economic growth of a region can be measured by looking at the gross domestic product growth rate based on current prices.

Transportation services have an important role in supporting the smooth running of the national economy, especially ports. The importance of transportation services is reflected in the facilities to support distribution so as to facilitate the flow of goods.

The purpose of this research is to analyze effect of sea transportation mobility on gross regional domestic product in East Kalimantan Province.

RESEARCH METHODS

The type of research used is quantitative research. Quantitative research is systematic scientific research into parts and phenomena and the causality of their relationships (Ansori, 2020). The aim of quantitative research is to develop and use mathematical models, theories, and hypotheses related to a phenomenon (Yusuf, 2016).

Secondary data is a variety of information that has previously existed and is deliberately collected by researchers which is used to complete research data needs (Sugiyono, 2009). Usually, this data is in the form of diagrams, graphs, or tables of important information such as the population census (Hasan, 2004). Secondary data obtained from East Kalimantan Provincial Transportation Service and the East Kalimantan Central Statistics Agency, as well as other data sources that are considered to support this research, data taken from 2012 to 2021.

Data analysis uses multiple linear regression. Multiple linear regression is a function or equation that involves two or more variables, where one variable is called the dependent, which is described by (Y), and the other is called the independent variable, which is described by (X) (Santoso, 2001).

RESULT AND DISCUSSION
General Description
The increasingly improved service in sea transportation modes can increase people's interest in using ships to travel. This is proven by data from East Kalimantan

Provincial Transportation Service which records fluctuations in the number of ship passengers in East Kalimantan from 2012 to 2021. Operators are getting better service and relatively affordable rates, making ships the public's choice as a means of transportation when traveling.

As an archipelagic country, sea transportation has an important role in ensuring smooth population mobility and distribution of goods between islands in Indonesia. Sea ports are an inseparable part of supporting economic activities in a region that relies on sea transportation. Several indicators related to activities at sea ports can provide an overview of the development of sea transportation in Indonesia. The increase in the number of ships carried by ships from 2012 to 2021 occurred at Port of East Kalimantan, which always increases every year. In 2012 the number of transportation units was 162,451 units and in 2021 it increased drastically to 271,707 units.

Calculation of gross regional domestic product has become a very important part of macroeconomics, especially the economic analysis of a region. The results of the gross regional domestic product calculation provide a basic framework used to measure economic activities that occur and take place in an economic activity. These gross regional domestic product figures are used as macroeconomic indicators and also as a basis for evaluating economic performance and formulating various policies. This economic indicator also provides an overview of the flow of all added value of goods and services produced and all production factors used by the economy to produce added value of goods and services. The problem of economic growth in a region is also influenced by government policy, so government policy must be formulated appropriately so that the economic growth target in a region can be achieved.

Multiple Linear Regression Test Result
Multiple linear regression test via the partial test (t) is used to determine whether the independent variable partially has a significant influence on the dependent variable.

Table 1. Multiple Linear Regression Test Result Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	Collinearity Statistics	
		B	Std. Error				Toleranc e	VIF
1 (Constant)		360222.016	13541.340		26.602	.000		
	X_1	.359	.308	.229	2.417	.046	.396	2.525
	X_2	.392	.102	.755	3.838	.006	.396	2.525

a. Dependent Variable: Y
Source: Secondary Data from SPSS 26 Research Results

The research results show that number of passenger (X_1) has a positive and significant effect on gross regional domestic product (Y) in East Kalimantan Province. The more regional feeder ports, local feeder ports, and main ports, the greater the value of gross regional domestic product and economic growth in the area because a good and smooth transportation process for goods and services will result in an even level of welfare for the population. In contrast to the existence of local feeder ports which are not significant to gross regional domestic product and economic growth of Sulawesi Island. Therefore, increasing local feeder ports will reduce gross regional domestic product and economic growth in the area. Apart from that, regional revenues from local feeder ports are not optimal because regional tax and levy revenues are not optimally collected by the regional government because local feeder ports only function as crossings for local communities. Regional feeder ports, local feeder ports and main ports are one of the factors that influence gross regional domestic product of Sulawesi Island. The increase in these three

ports means economic growth occurs because economic growth is measured from gross regional domestic product, so an increase in gross regional domestic product means an increase in income.

Number of transportation (X_2) has a positive and significant effect on gross regional domestic product (Y) in East Kalimantan Province. Therefore, increasing local feeder ports will reduce gross regional domestic product and economic growth in the area. Apart from that, regional revenues from local feeder ports are not optimal because regional tax and levy revenues are not optimally collected by the regional government because local feeder ports only function as crossings for local communities. Regional feeder ports, local feeder ports, and main ports are some of the factors that influence the gross regional domestic product of Sulawesi Island. The increase in these three ports means economic growth occurs because economic growth is measured from gross regional domestic product, so an increase in gross regional domestic product means an increase in income.

CONCLUSION AND SUGGESTION
The research results show that number of passengers has a positive and significant effect on gross regional domestic product in East Kalimantan Province. Number of transportations has a positive and significant effect on gross regional domestic product in East Kalimantan Province.

Based on these conclusions, the suggestions put forward in this research are as follows:
1. The increasing growth of East Kalimantan Province's gross regional domestic product should be further supported by the addition of regional feeder ports, local feeder ports, and main ports. Regional governments must be consistent in realizing additional ports that are oriented towards increasing regional income so that the level of community welfare can increase, so that economic growth and gross regional domestic product also increase.
2. The government needs to increase cooperation with the surrounding community to maintain port facilities and sustainability by keeping the surrounding port area clean so that visitors are more comfortable around the port and increasing security so that visitors feel safe.

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