Analysis of Factors Influencing GRDP Growth in the Non-Mining Sector in Districts/Cities of Bangka Belitung Islands Province

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Abstract. This research is motivated by the slow growth of GRDP in the non-mining sector even though the Bangka Belitung Islands Province has great potential and is one of the leading sectors of national priority. This research aims to analyze the influence of the Agriculture, Forestry and Fisheries Sector, Transportation, and Warehouse Processing Industry on GRDP Growth in the non-mining sector, both simultaneously and partially. The kind of information utilized in this exploration is optional information in the areas/urban communities of the Bangka Belitung Islands Territory. The data analyzed is in the form of a cross-section for the period 2013 to 2022 annually. Research data was analyzed using regression analysis techniques. The results conclude that there is a positive and significant influence simultaneously or partially from the Agriculture, Forestry and Fisheries, Transportation, and Warehouse Processing Industry Sector variables on non-mining GRDP growth. There is a negative and significant influence of the non-mining GRDP growth variable on poverty levels.

Keywords: Economic growth; non-mining sector; Agriculture; Forestry and Fisheries; Transportation and Warehousing Processing Industries

1 Introduction

According to Siwu [1] in his study to find out what strategies must be implemented to increase economic growth to analyze all the factors that influence it including the regional ability to build physical/local development strategies, business world development strategies, human resource development strategies, and development strategies community economy.

Hall & Van Reenen [2] stated that economic development improves the welfare of society and this is generally measured by average income per capita, so the distribution of National GDP by province is an insignificant indicator in measuring development inequality in the regional economy if not combined with the average GDP level per capita. If GDP per capita is above 2 million rupiahs it is considered high and conversely, below 2 million it is considered low, and GDP per capita growth is high if it is above 3%, and low if it is less than 3%

The Bangka Belitung Islands Province is a new province that was born in the era of regional autonomy. This province was formed based on Law Number 27 of 2000 concerning the designation of the Bangka Belitung Islands region as an autonomous provincial region with

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the capital being Pangkalpinang. As a province that was born in the era of regional autonomy, the Bangka Belitung Islands are required to be able to develop regional and local policies to optimize the utilization of regional economic potential to improve people's living standards and Regional Original Income (PAD).

According to BPS, the results of tin mining in the Bangka Belitung archipelago province can control around 30% of the world's tin demand, which provides a large income for foreign exchange and contributes a significant amount to Gross Regional Domestic Income (GRDP). Until now, the general mining sector, especially tin, which is included in the primary sector group, is still the mainstay of the regional government of the Bangka Belitung Islands Province. In 2013 this sector was able to contribute to a GRDP of 15.63%. Meanwhile, in 2022 this sector will only be able to contribute 11.63% and will continue to decline.

The contribution of mining to the GRDP of the Bangka Belitung Islands Province continues to decline, but in this study it was 15.63% in 2013, so in 2022 it will only be able to contribute 11.63% to the GRDP of the Bangka Belitung Islands Province. Meanwhile, the non-mining sector experienced a significant increase, if you look at the table above in 2013, it was only 84.37% of the total GRDP. In 2022, it will increase to 88.37%. According to Hamidah, Maryadi, and Ahmad [3] stated that the government must create a business feasibility policy in dealing with businesses outside the mining business, especially tin in the Bangka Belitung Islands Province so that economic growth grows well. One of these businesses is the agricultural sector.

2 Theoretical Framework

2.1 Development Theory

Economic development, namely the main goal of economic development efforts, is no longer creating the highest level of GNP growth, but eliminating or reducing poverty levels, overcoming income inequality, and providing employment opportunities in the context of a continuously developing economy, [4]. Improvement should be seen as a multi-faceted cycle that remembers different crucial changes for social designs, local area perspectives, and public organizations, as well as chasing after sped up monetary development, tending to pay disparity, and mitigating neediness. The capability to function (capabilities to function) is what most determines whether someone is poor or not [4]. Economic growth itself cannot be considered the final goal. Development must pay more attention to improving the quality of life lived and the freedoms enjoyed

2.2 Regional Development Theory

The targets for developing this theory are increasing the rate of growth, creating jobs, and increasing income. The process of regional development is responding to foreign or domestic demand as well as the multiplier effect. This theory is only able to predict the short term and is unable to respond to long-term changes. Only emphasizing the need to develop non-based industrial sectors, does not recognize that regional economics is about integrating all economic activities that support each other. Industrial attractiveness theory is the economic development model most widely used by society. Rahardjo [5] stated

that society can improve its market position in the industry through providing subsidies and incentives.

2.3 Economic Growth Theory

The financial advancement of a district shows the outcome of improvement, despite the fact that it isn't the main mark of advancement achievement. [4]. There are three types of measures to assess economic growth, namely output growth, output growth per worker, and output growth per capita. Output growth is used to assess growth in production capacity which is influenced by an increase in labor and capital in the region.

This theory is further clarified by the Harord-Domar theory which states that the greater the portion of GDP that is saved will increase the capital stock thereby increasing economic growth[6]. Both theories explain that high levels of savings and capital stock will increase economic growth. However, several empirical studies show different results between countries in Eastern Europe and Africa.

2.4 Gross Regional Domestic Product (GRDP)

According to Maipita, Indra (2014) stated that economic growth is a tool for observing performance, so its position is very important for economic development. Financial development itself is a vital pointer in breaking down monetary improvement that happens in a country. Financial development is the advancement of monetary exercises that happens after some time and makes genuine public pay develop.

The monetary development rate shows the rate expansion in genuine public pay in a specific year when contrasted and genuine public pay in the earlier year. Todaro and Smith [4] stated that economic growth is a science that studies the expansion in the development of labor and products in the public arena's monetary exercises. Expanding the development of labor and products is connected with proficiency, minimum cost allocation from limited resources, and optimal growth of resources. This thinking agrees with traditional and Neo-Classical economics.

One factor in increasing GRDP is that according to Samanhudi, agriculture is the development and utilization of living natural resources, especially productive plants that produce produce and can be used for human life. Meanwhile, the definition of agriculture in the narrow sense is a process of cultivating crops on land that has been previously prepared on a small scale using local trading patterns and manual methods without using too much management. In daily activities, the word transportation is often replaced with the word "transportation".[7]

Freight places more emphasis on the juridical aspect while transportation places more emphasis on the economic activity aspect, but both have the same meaning, namely as moving activities using means of transportation [8].[1]

Warehouse management is a series of activities in planning, implementation, and control as well as activity improvement actions in procurement, receiving, storage, maintenance, distribution, stock clearing, and recording as documents to support effectiveness and efficiency in efforts to achieve organizational goals.

3 Research Methodology

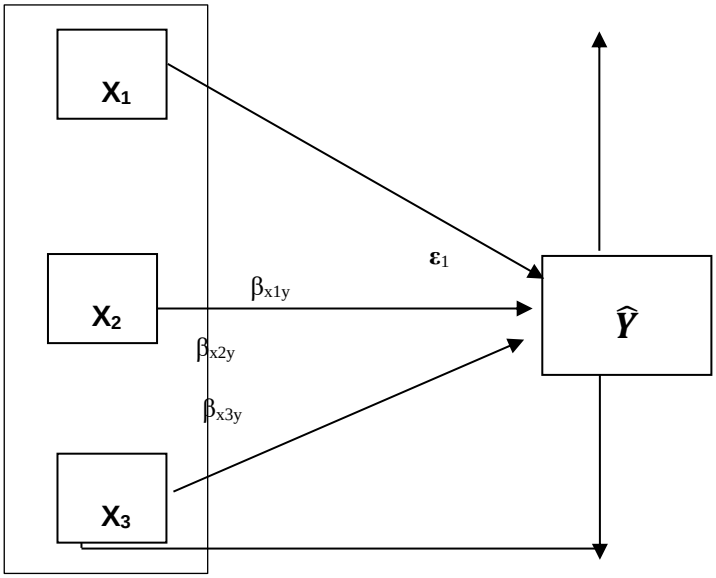
3.1 Population and research sample

The place or object of research data was carried out in the Bangka Belitung Islands Province. The data required in this research is secondary data whose collection is in the form of a time series over 10 years, namely from 2013 to 2022. In this research, the research population is all data related to non-mining GRDP, the agriculture forestry fisheries sector, the transportation sector, and the warehousing, and processing industry sector in the Bangka Belitung archipelago province.

Meanwhile, the sample used is data from the agriculture, forestry, fisheries sector, transportation and warehousing sector, processing industry sector, and non-mining GRDP in city districts in Bangka Belitung Province. The research method used in this research is a quantitative method and the data is a time series for 10 years.

3.2 Data Analysis and Hypothesis Testing

The data analysis used is a quantitative analysis using regression analysis. In this research, the author used a data management program tool, namely Eviews version 12. The structure of this research is:



Information:
X_1 = agriculture forestry fisheries sector
X_2 = transportation and warehousing sectors
X_3 = processing industry sector
Y = PDRB non mining
β_{xiy} = Regression coefficient of Variable X on Variable Y

Based on the substructure-1 model above, the equation can be formulated as follows:

$Y = f(X_1, X_2, X_3, X_4)$

$\mathbf{Ln}Y = \beta_o + \beta_{x1y} LnX_1 + \beta_{x2y} LnX_2 + \beta_{x3y} LnX_3 + \varepsilon_i$

4 Results and Discussion

4.1 Analysis of the influence of variable X on variable Y

By the established model which is based on theory. So this research is limited to 3 independent variables This research uses multiple regression analysis techniques. The results of the analysis are processed using the Eviews version 8.0 for Windows application with the results of the analysis being.

Table 1. Testing with Fixed Effects Models
(Fixed Effect) Sub Structure I

Dependent Variable: Ln (Y)
Method: Pooled EGLS (Cross-section weights)
Date: 23/09/2023 Time: 08:55
Sample: 2013-2022
Included observations: 10
Cross-sections included: 7
Total pool (balanced) observations: 70
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.093461	0.980605	1.221165	0.2269
Ln(X_1)	0.302970	0.091850	1.791249	0.0131
Ln(X_2)	0.513082	0.002241	2.563828	0.0397
Ln(X_3)	0.515203	0.021340	3.131234	0.0103
5Fixed Effects (Cross)				
_BANGKA--C	-0.220121			
_BABAR--C	0.119816			
_BATENG--C	0.251742			
_BASEL--C	0.134061			
_BELITUNG--C	0.413974			
_BELTIM--C	0.320350			
_PKP--C	-0.414361			
Effects Specification				
Cross-section fixed (dummy variables)				
Weighted Statistics				

R-squared	0.646181	Mean dependent var	1.790748
Adjusted R-squared	0.630968	S.D. dependent var	2.042326
S.E. of regression	0.415268	Sum squared resid	10.17801
F-statistic	9.293811	Durbin-Watson stat	1.734540
Prob(F-statistic)	0.000000		

Based on the above, the form of the multiple regression equation can be formulated as follows:

Y	=	$f(X_1, X_2, X_3,)$
Ln Y	=	$1{,}093 + 0{,}302\ln X_1 + 0{,}513\ln X_2 + 0{,}515\ln X_3 + \varepsilon_1$
t-statistic	=	(1,791) (2,563) (3,131)
R-squared	=	0.646
Adjusted R-squared	=	0,630
F-statistic	=	9,293
N	=	70

Based on the regression equation above, it can be interpreted as follows: The constant value 1.093 has meaning if the independent variable (X), namely the agriculture forestry fisheries sector (X1), the transportation and warehousing sector (X2), and the processing industry sector (X3) has a value of 0 (zero), then the magnitude of the dependent variable (Y), namely the GRDP of the non-mining sector in the Bangka Belitung Islands Province, experienced a constant increase in growth of 1.093 units, and the magnitude of this constant was significant.

The magnitude of the coefficient $\beta 1 = 0.302$ means that if the independent variable, namely the agriculture, forestry, fisheries sector (X1) and other variables are considered constant, then the magnitude of the dependent variable (Y), namely the GRDP of the non-mining sector of the Bangka Belitung Islands Province, has experienced an increase of 0.302 units and the coefficient is significant and vice versa.

The coefficient value $\beta 2 = 0.513$ has the meaning that if the independent variable, namely the transportation and warehousing sector (X2), other variables are considered constant, then the size of the dependent variable (Y), namely the non-mining sector GDP in the Bangka Belitung Islands Province, has increased by 0.513 units and the coefficient size is significant and on the contrary.

The magnitude of the coefficient $\beta 3 = 0.515$ has meaning if the independent variable, namely the processing industry sector (X3 and other variables are considered constant, then the magnitude of the dependent variable (Y), namely GRDP outside the Mining and Coal sector in the Bangka Belitung Islands Province, has experienced an increase in growth of 0.515 units and the magnitude of the coefficient is significant and on the contrary.

The adjusted R-squared coefficient of determination is 0.63 or 63 percent. This means that the non-mining sector GRDP variable in Bangka Belitung Province is influenced jointly by independent variations in the agriculture forestry fisheries sector (X1), the transportation and warehousing sector (X2), and the processing industry sector (x3) while the remaining 37 percent is influenced by other factors. -other factors not included in the model.

5 Conclusion

By referring to the research results and other findings obtained during the research, several things can be concluded as follows: The agriculture forestry fisheries sector, the transportation and warehousing sector, and the processing industry sector simultaneously have a positive and significant effect on the GRDP of the non-mining sector in the Bangka Islands Province Belitung.

The agriculture forestry fisheries sector, the transportation and warehousing sector, and the processing industry sector partially have a positive and significant effect on GRDP outside the Minerba sector in the Bangka Belitung Islands Province.

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