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## Strategy for Increasing Economic Growth through Base Sector Analysis in Teluk Bintuni Regency 2013-2018, Indonesia

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### **Abstract:**

*National economic growth is a process where there is an increase in real gross national product or real national income. Meanwhile, regional economic growth is a process of increasing gross regional domestic product and increasing prosperity. The economy is said to be growing or developing when there is a change in real output. Economic growth in Teluk Bintuni Regency is in a fairly good condition. In order for the economic growth that occurs in Teluk Bintuni Regency to be directed and efficient, it is necessary to identify the basic sector or potential sector, and it is necessary to formulate an appropriate development strategy so that it can achieve the targeted economic growth. This study aims to identify what sectors are included in the basic sector and how appropriate strategies are used in order to increase the economic growth of potential sectors and encourage the growth of other sectors. The research method used is LQ Analysis, Shift share, Klassen Typology and SWOT. The results of the study indicate that the sectors that have competitive advantage and specialization are the mining and quarrying sector and the manufacturing industry sector. By looking at the situation, the local government of Teluk Bintuni Regency is optimizing the strategic sector, namely the mining and quarrying sector and industrial processing while still paying attention to other sectors. Local governments must be able to optimize the market share of the mining and quarrying sector as well as the processing industry as well as improve facilities and infrastructure related to the sustainability of economic sectors. The government is also expected to be proactive, and together with the community in determining the right policies so that prosperity can be achieved.*

**Keywords:** Economic Growth, Base Sector, LQ Analysis, Shift Share Analysis, Klassen Typology, SWOT

### **1. Introduction**

Economic development is the process of changing the economic conditions of a country on an ongoing basis towards a better state over a certain period. Economic development in Indonesia has the main goal of improving people's welfare through increasing national income. High and sustainable economic growth is the main requirement and is a must for the continuity of economic development for the sake of increasing welfare. Economic development is basically a reference for regional development. The regional development goals themselves are not much different from the national development goals. However, the development process in the regions is much more specific. Regional economic development is a process in which local governments and their communities manage their existing resources and form a partnership pattern between local governments and the private sector to create new jobs and stimulate the development of economic activities in the region (Arsyad, 2010).

One form of strategy to increase economic growth in order to compete and develop the economy is to develop and give priority to the leading sectors that become the basis, so that it becomes more focused in advancing the economy in the area. An economic indicator that is indispensable for measuring the performance of a region's economic growth is the Gross Regional Domestic Product (GRDP). GRDP is an important indicator in an area that can indicate the total net production of goods/services which can then be used as a basis for planning and evaluating regional development.

The theory of economic basis which states that the main determinant of economic growth in a region is directly related to the demand for goods and services from outside the region (Arsyad 1999). An area will have a leading sector if the region can win the competition in the same sector with other regions so that it can produce exports (Suyanto, 2000).

West Papua Province is a province in Indonesia located at the tip of Papua Island, the capital city is Manokwari. The name of this province was previously West Irian Jaya which was stipulated in Law Number 45 of 1999, based on Government Regulation Number 24 of 2007 dated April 18, 2007, the name of this Province was changed to West Papua. Currently, West Papua Province consists of 12 regencies and one city. Based on Law Number 32 of 2004 concerning Regional Government, which regulates and manages government affairs itself and Law Number 33 of 2004 concerning finances. This requires local governments to implement decentralization and spur economic growth in order to improve people's welfare.

Economic growth reflects changes in economic activity. Economic growth can be positive or negative. If in one period of economic growth experiences a positive state, it means that economic activity in that period has increased. Meanwhile, if in a period of economic growth experienced a negative condition, it means that economic activity in that period experienced a decline (Sukirno, 2002).

## 2. Literature Review

### 2.1. Economic Growth Theory

Economic growth is an indicator that provides information about the description of the success of regional economic development which can be presented in the Gross Regional Domestic Product based on current prices and constant prices. GRDP at current prices describes the added value of goods and services calculated using prevailing prices every year, while GRDP at constant prices shows the added value of these goods and services which is calculated using prices valid in one particular year as the base year.

Economic growth is usually defined as the growth of national income that occurs in a country from one year to another, which means an increase in the national income of a country that occurs continuously every year (Sukirno, 1994).

Economic growth is one indicator of the success of development in an economy. The welfare and progress of an economy is determined by the size of the economy as indicated by changes in national output, changes in national output in the economy are short-term economic analysis (Ma'ruf and Wihastuti, 2008).

### 2.2. Gross Domestic Product

Gross Regional Domestic Product (GRDP) is the gross added value of all goods and services created or produced in the domestic territory of a country arising from various economic activities within a certain period regardless of whether the production factors are owned by residents or non-residents. The preparation of GRDP can be done through 3 (three) approaches, namely the approach to production, expenditure, and income which are presented on the basis of current prices and constant (real) expenditure prices. GRDP at current prices or known as nominal GRDP is compiled based on prices prevailing in the calculation period, and aims to see the structure of the economy. Meanwhile, GRDP at constant (real) prices is prepared based on prices in the base year and aims to measure growth over time.

### 2.3. Economic Base Sector Theory

The basic sector is the backbone of the regional economy because it has a fairly high competitive advantage. Meanwhile, the non-base sector is other sectors that have less potential but function as a support for the basic sector (Sjafrizal, 1985).

This economic base theory was put forward by Richardson (1973) which states that the economic growth of a region is directly related to the demand for goods and services from outside the region (Arsyad, 1999:116). An area will have a leading sector if the region can win the competition in the same sector with other regions so that it can produce exports (Suyanto, 2000).

The basic sector is the sectors that export goods and services to places outside the economic boundaries of the community concerned for the input of goods and services to the community who come from outside the economic boundaries of the community concerned. Non-base sectors are sectors that make goods needed by people who live within the economic boundaries of the community concerned.

### 2.4. Previous Research

Strategy to Increase Economic Growth through Base Sector Analysis in Batu City Period 2010-2014 by (YohanNasution and Made suparta 2018). From this research, it is obtained GRDP growth during the period 2010-2014 and analyzes the economic sector that has a comparative advantage.

The Role of the Leading Sector as One of the Factors in Reducing Inequality in Regional Development in West Papua Province in 2005-2013 (Michael Albret Baransano et al 2016). Through the analysis of the Theil Index, it is obtained to know the condition of inequality in each region. By using the Location Quotient (LQ) analysis tool. It can be found that in West Papua Province in every Regency/City there is a comparative advantage and competitive advantage. Shift Share Analysis is obtained which leading sectors can be the main drivers of development in reducing inequality.

Analysis of Leading Sector and Potential for Economic Growth in Madiun City in 2007-2011 (Mohammad Krisna Sanjaya, 2014). The results of this study indicate the leading sector in Madiun city based on the results of the classic shift share analysis test, shift share. Esteban Marquillas and Shift share arcelus and also from being able to find out which sectors have potential in Madiun City.

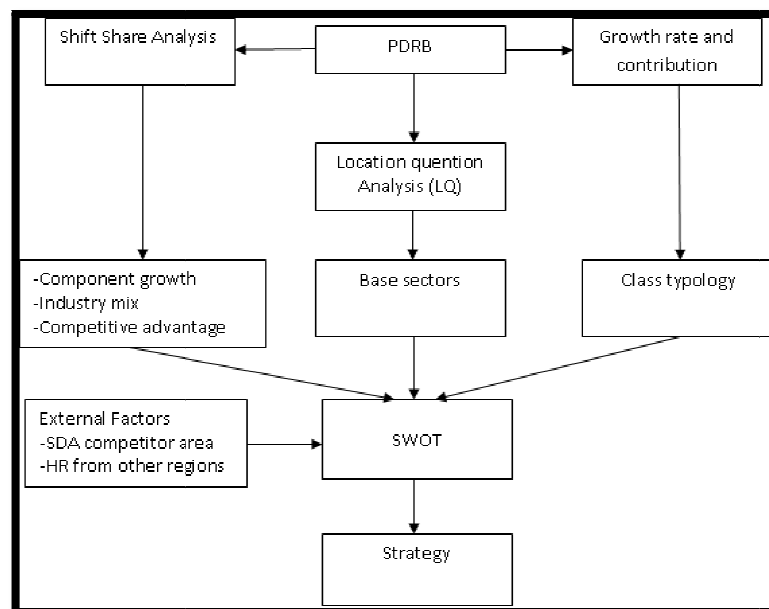


Figure 1: Framework

### 3. Research Methods

This research was conducted in Teluk Bintuni Regency, precisely at the Central Statistics Agency (BPS) of Teluk Bintuni Regency and the Central Statistics Agency (BPS) of West Papua Province. The time of the research was carried out for more than one month from October 1 to November 5, 2019.

The research method used is descriptive research. Descriptive research is a method used to describe or analyze a research result but is not used to make conclusions (Sugiyono, 2009). Thus, this study describes the existing situation and circumstances based on data provided by BPS Bintuni Bay Regency and BPS West Papua Province. Objek dalam penelitian ini adalah Produk Domestik Regional Bruto (PDRB) Kabupaten Teluk Bintuni dan Produk Domestik Regional Bruto (PDRB) Provinsi Papua Barat periode 2013-2017.

The data used in this study is secondary data in a time series for 6 years from 2013 to 2018 which was obtained from BPS Bintuni Bay Regency and BPS West Papua Province. The data analysis technique used in this research is statistical analysis technique (quantitative) and descriptive analysis technique.

### 4. Results and Discussion

#### 4.1. Location Quotient Analysis (LQ)

The base sector in an area is a source of economy in the area due to the role of the sector in a wider area, so that it can become an advantage for a region to compete with other regions, it is necessary to know which sector is the most influential in order to encourage other sectors in the region. growing. The Location Quotient (LQ) method is used as one of the approaches commonly used in the basic economic model as a first step to understanding the GRDP sector of Teluk Bintuni Regency which is the driver of economic growth.

#### 4.2. Shift Share Analysis

Shift Share is an analysis used to analyze changes in the regional economic structure. The purpose of this analysis is to determine the performance or work productivity of the regional economy by comparing it with a larger region (regional/national).

The results of the Shift Share analysis show that changes or shifts in economic growth in sectors in the GRDP in Teluk Bintuni Regency experience positive and negative growth. The component of sector growth in Teluk Bintuni Regency shows a positive value, where out of the seventeen GRDP sectors, the value of changes or shifts is good. Meanwhile, the industrial sector mix (proportional shift) in Teluk Bintuni Regency is negative. This indicates that industrial development in Teluk Bintuni Regency has experienced negative changes or less changes compared to the wider area, namely West Papua Province, which has experienced changes or shifts in the industrial mix. more developed. For competitive advantage (Defferential shift) in Teluk Bintuni Regency, it shows that there are sectors that have positive values and some have negative values, in which the mining and quarrying sectors; Construction; Financial and Insurance Services; Real Estate and Educational Services have a negative value. This indicates that changes in economic sector growth in these sectors experience a slight change in the economic structure, while a positive value indicates a competitive advantage in Teluk Bintuni Regency. Overall, the shift in economic growth experienced a fairly good condition, this can be seen from changes in the absorption of the GRDP sector (Dij) from the period 2013-2018 growth component growth (Nij), industry mix (Mij) and competitive advantage (Cij) which were positive. The highest change in growth (Dij) was in the water supply, waste management, waste and recycling sector of 95,030,794.54 and the lowest sector was in the education services sector of -48,160,402.78.

#### 4.3. Klassen Typology

Klassen Typology analysis is useful to see how much a sector contributes to the total contribution of existing sectors and also to find out how far the average growth rate of the sector is, in other words to see the development of a sector, Klassen Typology analysis is based on rate analysis growth and contribution that develops in a region compared to the average contribution of developing sectors in a region compared to a wider region through the calculation of real GDP, based on this Klassen Typology analysis a sector is said to be superior if during the study period the average contribution of the sector in GRDP is higher than the average contribution of the same sector in West Papua Province and also has a relatively higher average growth rate than the same sector in West Papua Province. It is said to be 'high' if the value of this indicator in Teluk Bintuni Regency is higher than the value of the indicator in West Papua Province as the reference area.

Seen by sector, the highest average GRDP percentage is obtained from the Manufacturing Industry sector, which is 55.15%. This indicates that the main driving sector of the Bintuni Bay Regency economy is the manufacturing sector. This sector indicates that the development of the manufacturing industry in Bintuni Bay Regency shows a significant increase. high. Other sectors that also make a big contribution to the GRDP of Teluk Bintuni Regency are the Mining and Quarrying Sector at 38.03%, the Agriculture, Forestry and Fisheries Sector contributing 2.73%, the Construction sector contributing 1.55% and the Government Administration, Defense Sector and Mandatory Social Security with a contribution of 1.48% of these five sectors that dominate the economy of Teluk Bintuni Regency. Meanwhile, the sectors that provide the smallest contribution to the GRDP of Teluk Bintuni Regency are the Electricity and Gas Procurement sector at 0.00%, the Water Supply sector, Waste Management, Waste and Recycling by 0.00%, Corporate Services sector by 0.00%, Other services sector by 0.00% by Food and Drink Accommodation by 0.02%, Financial and Insurance Services by 0.05%, Health and Social Activities sector 0.06%, Information and Communication Sector 0.11%, Real Estate sector 0.12%, Transportation and P . sector warehousing by 0.13%, the Education Services Sector by 0.22% and the Wholesale and Retail Trade, Car and Motorcycle Repair sector by 0.34%. these sectors are sectors that make a small contribution to the GRDP of Teluk Bintuni Regency.

The total average growth rate of Bintuni Bay Regency is 127.62% and West Papua Province is 258.61%. The highest growth rate in Teluk Bintuni Regency is in the Financial Services and Insurance Sector at 47.24% and the second largest is in the Construction Sector at 11.53% while in the Province of West Papua the highest growth rate is in the Electricity and Gas Procurement Sector at 147.24%.

Based on the Klassen Typology method, the sectors can be grouped into developed and rapidly growing sectors, developed but depressed sectors, potential or developing sectors and relatively lagging sectors. However, it should be noted that this grouping is dynamic because it is very dependent on the development of each sector, meaning that in the next few years it is very possible that this grouping is very likely to change. High or high contribution  $S_i > S$  and  $S_{ki} > SK$ , Developed but Depressed Sector (High Growth and Low Contribution or  $S_i < S$  and  $S_{ki} > SK$ ), sectors with potential or still developing (high contribution and low growth or  $S_i > S$  and  $S_{ki} < SK$ ) and relatively lagging sectors (Low growth and low contribution of  $S_i < S$  and  $S_{ki} < SK$ ).

Sector	Growth Rate		Category	Contribution		Category	Quadrant
	$S_i$	$S$		$S_{ki}$	$S_k$		
Agriculture, Forestry and Fisheries	2.1	4	$S_i < S$	2.73	10.45	$S_{ki} < S_k$	IV
Mining and excavation	1.25	1.14	$S_i > S$	38.03	21.35	$S_{ki} > S_k$	I
Processing industry	4.61	4.64	$S_i < S$	55.15	32.02	$S_{ki} > S_k$	II
Electricity and Gas Supply	5.4	147.24	$S_i < S$	0	0.08	$S_{ki} < S_k$	IV
Water Supply, Waste Management, Waste and Recycling	1.97	4.86	$S_i < S$	0	0.11	$S_{ki} < S_k$	IV
Construction	11.53	10.64	$S_i > S$	1.55	11.34	$S_{ki} < S_k$	III
Wholesale and Retail Trade, Car and Motorcycle Repair	6.92	8.24	$S_i < S$	0.34	5.94	$S_{ki} < S_k$	IV
Transportation and Invitation	7.59	9.78	$S_i < S$	0.13	2.33	$S_{ki} < S_k$	IV
Provision of Accommodation and Food and Drink	4.93	6.73	$S_i < S$	0.02	0.52	$S_{ki} < S_k$	IV
Financial Services and Insurance	47.24	8.59	$S_i > S$	0.05	1.33	$S_{ki} < S_k$	III
Information and Communication	-6	9.06	$S_i < S$	0.11	1.72	$S_{ki} < S_k$	IV
Real Estate	8.54	8.11	$S_i > S$	0.12	1.1	$S_{ki} < S_k$	III
Company Services	4.4	7.34	$S_i < S$	0	0.1	$S_{ki} < S_k$	IV
Government administration, Defense and Social Security mandatory	7.74	7.77	$S_i < S$	1.48	8.25	$S_{ki} < S_k$	IV
Education Services	8.16	7.74	$S_i > S$	0.22	2.41	$S_{ki} < S_k$	III
Health Services and Social Activities	5.33	5.59	$S_i < S$	0.06	0.76	$S_{ki} < S_k$	IV
Other Services	5.92	7.14	$S_i < S$	0	0.26	$S_{ki} < S_k$	IV

Table 1: The Comparison of Klassen Typology  
Source: Data Processed 2019

**Keterangan**

Si : Bintuni Bay Regency  
 S : West Papua Province  
 Ski : Bintuni Bay Regency  
 Sk : West Papua Province

Table 1 show that the comparison of Klassen typology is used to classify economic sectors in Teluk Bintuni Regency and West Papua Province into the Klassen Typology quadrant. To determine the level of an economic sector in Teluk Bintuni Regency and West Papua Province against the same sector. Where the sector that has the largest growth rate and average of GRDP in Teluk Bintuni Regency is the Financial Services and Insurance sector at 47.24% while the sector which has a low average growth rate is the Information and Communications sector at -6%. For the sector that has an average growth rate of GRDP of West Papua Province, electricity and gas procurement is 147.24%, while the lowest average growth rate is in the Mining and Quarrying sector of 1.14%. while the sectors that have the highest average contribution in Teluk Bintuni Regency to GRDP are the Mining and quarrying sector of 38.03% and the lowest sector or no contribution there are four sectors, namely at 0% are the Electricity and Gas Procurement Sector, Water Supply Sector, Waste Management, Waste and Recycling, Enterprise service sector and Other Services sector. Meanwhile, the highest contribution to GRDP at the level of West Papua Province is the Manufacturing Industry sector at 32.02% and the lowest contribution is in the Enterprise Services sector at 0.1%.

**4.4. SWOT Analysis**

Development Strategy for the GRDP sectors of Teluk Bintuni Regency with a SWOT analysis by comparing external factors of opportunities and threats with internal factors of strengths and weaknesses so that from this analysis a strategic decision can be taken (Marimin, 2004). The SWOT analysis model is based on logic by using strengths and opportunities to overcome or minimize weaknesses and threats.

**5. Conclusion**

By using Location Quotient (LQ) analysis, it can be seen that in Teluk Bintuni Regency, which is a potential and leading sector, there are two sectors, namely the Quarrying and Mining sector and the Manufacturing industry sector, while the other sectors are sectors that are not superior but contribute to GRDP.

The results of shift share analysis from 17 sectors in Teluk Bintuni Regency show an increase in real growth. This indicates an increase in the performance of the economic sector. The economic sector that shows the highest growth component is the construction sector, the industrial mix is the other service sector and the competitive advantage is the electricity and gas procurement sector. On changes or shifts in the structure of economic growth experienced good growth.

The results of the Klassen typology show that the advanced and rapidly growing sectors are the mining and quarrying sector, the advanced but depressed sector is the manufacturing sector, potential or still developing sectors are the construction sector, the financial and insurance services sector, the real estate sector and the education services sector. While the other 11 sectors, including relatively lagging sectors, indicate that there is a need to improve management in each sector supporting GRDP.

From the results of the SWOT analysis, the strategies made are by using strengths and taking advantage of opportunities, namely utilizing natural resources in increasing regional growth and using educated workers in the region to reduce unemployment. Taking advantage of opportunities to avoid weaknesses, namely developing regionally owned companies, namely patchouli companies (Penguat Aroma), developing infrastructure development and also taking advantage of opportunities for petro-technical schools that can reduce unemployment and provide an educated workforce. Using strengths and expelling obstacles, namely utilizing existing natural resources optimally in increasing market demand satisfaction both within the region and outside the region as well as using weaknesses and expelling obstacles, namely in supporting production in the region it is necessary to develop infrastructure and government policies in the development of industries.

For the Government to be more serious and more focused in making strategies in increasing the economic growth of its sector and it is hoped that the Government can conduct an evaluation of the management performance strategy so as to increase sector growth in increasing Gross Regional Domestic Product (GRDP).

It is hoped that future researchers can become a reference for conducting the same research but can add strategies used in increasing economic growth. Both research conducted in TelukBintuni Regency or other Regencies.As one of the requirements in completing education and achieving a bachelor's degree in economics at the University of Papua.

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