THE ANALYSIS OF ECONOMY POTENTIAL AND BASE SECTOR OF SEVEN PROVINCES IN SUMATERA

by Ukhti Ciptawaty

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ABSTRACT

This study aims to calculate the relative ratio of the value added contribution of a sector in Sumatra region to the value added contribution of the sector concerned on a provincial or national scale growth patterns in South-Sumateran distinct groups of regions across Sumatera Island from 2014 until 2019. The analysis follows the two steps of quantitative analysis tools; Location Quotation (LQ) and Klassen Tipology.The LQ analysis will show of quantifying how concentrated a particular source of income, geographic, and the demographic group is in a region as compared to the nation. It can reveal what makes a particular region "unique" in comparison to the national average. The results showed that the GDRP business sector which has high potential value and high added value significantly spurs economic growth. This article ends with several policy recommendations for lagging regions. The recommendation and analysis will help to organize the economic growth of each province in a structured manner based on its sector potential.

1. INTRODUCTION

There are various studies devoted to economic studies that have tried to analyze growth a lot. Since Solow's contribution in 1956, examining the dynamics of growth has been at the forefront of theoretical and empirical investigations. In line with that, several studies have explored the causes and characteristics of regional growth processes in a country (Annoni, 2019). Economic growth is an important part that cannot be separated from the achievement of economic development. Therefore, it is necessary to analyze the areas that are the mainstay of the leading sectors to encourage economic growth. The analysis discusses the leading sectors in the seven provinces of Sumatera Island; both geographically and demographically (Tombolotutu, 2019). The formation of insight into the best pattern and structure of a region's income will complement the needs of economic development planning.

The main variable that is the subject of discussion is the Gross Regional Domestic Product (GRDP). GRDP is one of the economic data variables that can be used to evaluate the economic development performance of a region in a certain period, both on the basis of current prices and at constant prices. GRDP is basically amount of added value generated by all business units in a certain area, or is the sum of the value of final goods and services produced by all economic units in an area. GRDP value can represent the economic growth of a region (Jumiyanti et al.,2016). Problems that often arise in the process of economic development are inequality between regions; a province will progress more rapidly than its neighboring regions. This has become one of the main development issues in developing countries. Regional disparities occur because of uneven development.

This inequality is the effect of the existence of agglomeration in which cities have a temporary fast growth acceleration. The sector-based recommendations will then improve the pattern and structure of a region's income. This study will discuss the structure of regional income. According to Samido in Nurlatifa Usya (2006), a leading sector is a

sector, one of which is influenced by the existence of endowment factors. Furthermore, this factor develops further through investment activities and becomes the basis of economic activity. The criteria for the leading sector will vary widely. This is based on how big the role of the sector is in the regional economy, including: first, the leading sector has a high growth rate; second, the sector has a relatively large labor absorption rate; third, the sector has high inter-sectoral linkages both forward and backward; fourth, it can also be interpreted as a sector capable of creating high added value. These are important to accelerate the economic development in South Sumatran regions. Economic growth shows the extent to which economic activity will generate additional public income in a certain period. Because basically economic activity is a process of using production factors to produce output, this process in turn will result in a flow of remuneration for production factors owned by the community (Mankiw, 2003). For that reason, a study is needed to provide recommendation and analysis will help to organize the economic growth of each province in a structured manner based on its sector potential.

2. LITERATURE REVIEW

Paradigm in post Keynesian analysis, the distribution of income and the rate of output growth are related to the effect of the level of investment. As an alternative, the analysis can be extended by comparing productivity in a particular sector with the elasticity of demand growth in the same sector. Spatial relationship is a relationship that occurs because of the interaction depending on the observation value of its neighbor, namely the region j where i ≠ j. The interactions that occur between regions can take the form of the economic sector, for example, the flow of goods and services, labor migration, income flows into transfers and money transfers. Interaction can also occur in the field of technology, namely, the occurrence of technology diffusion from areas with higher technology to regions with lower technology. In addition, the political situation in a region will affect policies in the region which will have an impact on neighboring areas (Romzi, 2011).

Based on the classification typology, provinces in Sumatera can be classified based on growth and per capita income into four groups, namely Riau Islands Province (Quadrant I) including fast-growing and fast-growing provinces, Riau Province (Quadrant IV) including developed but depressed provinces, North Sumatera Province, West Sumatera,

Jambi, South Sumatera, Bengkulu, Lampung, Bangka Belitung (Quadrant II) including fast developing provinces and NAD Province (Quadrant III) including relatively underdeveloped districts. Economic inequality between provinces in Sumatera as seen from the value of Gross Regional Domestic Product (GDRP) per capita in 10 provinces in Sumatera during the 2011 - 2015 period as seen from the Williamson Index, there are five provinces that have an inequality index below the provincial average and five provinces that has an average index above the average index of Sumatera, (Putri Suryani Sebayang, 2017).

The seven basic sectors of Gorontalo District, the electricity and gas supply sector is the most stable sector to be used as a base activity in the Gorontalo District. With a high enough contribution and also the LQ value of Gorontalo Regency to the economy of Gorontalo Province which is also quite high, this activity makes this activity a very good basis for development because there are so many positive impacts caused by this sector, (Kalzum R. Jumiyanti, 2016).

3. RESEARECH METHODS

The type of research is quantitative descriptive research and the data source used is secondary data obtained from the national and provincial BPS sites, namely constant price GRDP data of 21 business fields from 7 provinces on the island of Sumatera from 2014 to 2019 covering the province of North Sumatera, West Sumatera, South Sumatera, Riau, Bengkulu, Jambi and Lampung. Descriptive analysis method is a simple analytical method that can be used to describe the condition of an observation by presenting it in the form of tables, graphs and narrative with the aim of making it easier for readers to interpret the results of observations.

Location Quotient (LQ)

Location Quotient is a method for calculating the relative ratio of the value added contribution of a sector in a region (regency / city / regency / city) to the value added contribution of the sector concerned on a provincial or national scale. This technique is used to identify the internal potential of a region, namely dividing it into two groups, namely the basic sector and the non- base sector. Location Quotient analysis is intended to identify and formulate the composition and shift of the sectors on a regional basis by using the Gross Regional Domestic Product (GRDP) as an indicator of regional growth. The calculation of

LQ uses the following formula (Ghalib, 2005).

$$LQ = \frac{\dfrac{V_i^R}{V^R}}{\dfrac{V_i^N}{V^N}}$$

Explanation:
LQ : Location Quotient Value
V_i^R : GRDP Sector I in the District/City
V^R : Total GRDP Sector I in the District/City
V_i^N : GRDP Sector I in the Province/National
V^N : Total Sector I in the Province/National

Based on the results of the LQ calculation, it can be analyzed and concluded as follows: If the LQ is greater than one (LQ>1), it is a basic sector and has the potential for export, meaning that the specialization of the district / city / regency / city is higher than the provincial level, if the LQ is smaller of one (LQ<1), is a non-basic sector, that is, a sector whose level of specialization is lower than the provincial level. If LQ is equal to one (LQ = 1), it means that the level of specialization in the district / city is the same as the provincial level.

Klassen Typology

Klasse Typology is an analytical tool that can be used to identify sectors, subsectors, businesses, or priority or superior commodities of an area. This analysis tool can be used through two approaches, the first is with a sectoral approach while the second approach is a regional / regional approach such as knowing the classification of regions based on two main indicators, namely economic growth and income or Gross Regional Domestic Product (GRDP) per regional capita. The regional approach produces four classifications of districts / cities, each of which has different characteristics of economic growth, namely:

1. Developed and fast growing regions (Rapid Growth Region/Quadrant I) Developed and fast growing regions (Rapid Growth Regions) are regions that experience a GDP growth rate and a level of income per capita that is higher than the average of all regions. Basically, these regions are the most developed regions, both in terms of level of development and speed of growth.

2. Developed but depressed regions (Retarted region/Quadrant II) Retarted regions are regions that are relatively developed but in recent years their growth rate has decreased due to pressure on the main activities of the region concerned. Therefore, even though this area is an advanced

region, in the future it is estimated that the growth will not be so fast, even though the development potential is very large.

3. A fast growing area (Growing Region/ Quadrant III) Basically, a fast developing region (Growing Region) is an area that has a very large development potential, but it is still not well activated. Therefore, even though the level of economic growth is high, the level of income per capita, which reflects the stage of development that has been achieved, is still relatively low compared to other regions.

4. Relatively backward regions/Quadrant IV. Then, relatively backward regions (Relatively Backward Region) are regions that have growth rates and per capita income that are below the average of all regions. This means that both the level of community welfare and the level of economic growth in this area are still relatively low. But this does not mean that this area will not develop in the future. Through the development of regional economic facilities and infrastructure along with the level of education and knowledge of the local community, it is estimated that this area will gradually catch up (Sjafrizal, 1997).

4. RESULTS AND DISCUSSIONS

Results of Location Quotient (LQ) in 7 Provinces in Sumatera Island, 2014-2019 :

Tabel 1. Location Quotient (LQ) in 7 Provinces in Sumatera Island 2014-2019

Business Sector	Province						
	Sumatera Utara	Sumatera Selatan	Sumatera Barat	Riau	Jambi	Bengkulu	Lampung
A	1,94	1,40	1,79	1,96	2,06	2,25	2,37
B	0,16	2,70	0,51	2,64	2,99	0,44	0,73
C	0,89	0,87	0,41	1,37	0,51	0,29	0,85
D	0,13	0,09	0,10	0,05	0,04	0,08	0,13
E	1,16	1,40	1,23	0,16	1,66	2,77	1,03
F	1,26	1,17	0,90	0,80	0,72	0,45	0,94
G	1,31	0,75	1,17	0,68	0,71	1,12	0,90
H	1,15	0,48	2,93	0,21	0,79	1,97	1,24
I	0,76	0,42	0,35	0,15	0,36	0,52	0,45
J	0,53	0,65	1,37	0,17	0,71	0,89	0,90
K	0,76	0,64	0,74	0,23	0,57	0,86	0,52
L	1,42	1,02	0,66	0,30	0,49	1,52	1,03
M,N	0,51	0,06	0,21	0,00	0,16	1,31	0,08
O	0,96	0,94	1,66	0,52	1,02	2,57	0,91
P	0,65	0,88	1,20	0,15	1,04	2,04	0,88
Q	0,85	0,59	1,03	0,16	1,02	1,43	0,72
R,S,T,U.	0,29	0,47	0,99	0,28	0,60	0,45	0,51

Explanation ☐ LQ Value> 1 Base Sector

Field Description of Business:
A. Agriculture, Forestry and Fisheries, B. Mining and Quarrying, C. Processing Industry, D. Electricity and Gas, E. Water Supply, Waste Management and Others, F. Construction, G. Wholesale Trade and Vehicle Repair, H. Transportation and Warehousing, I. Provision of Accommodation and Food and Drink, J.

Information and Communication, K. Financial Services and Insurance, L. Real Estate, M, N. Corporate Services, O. Government Administration and Others, P. Education Services, Q. Health Services and Social Activities, R, S, T, U. Other Services. Location Quotient (LQ) has a value of more than one (LQ> 1), so the sector in question is included in the base sector where the sector in question can meet the needs of both within and outside the region and has a very positive potential for the regional economy if it is properly developed. While the value of the Location Quotient (LQ) calculation which has a value of less than one (LQ <1), it can be said that the sector in question is a sector that does not have the potential to become a base sector.

The results of the calculation of Location Quotient (LQ) in 7 Provinces in Sumatera Island for multiyears from 2014-2019:

North Sumatera Province has 6 basic sectors, namely the Agriculture, Forestry and fisheries sectors, water supply and other waste processing, construction, wholesale trade and vehicle repair, transportation and warehousing and real estate. South Sumatera Province has 5 basic sectors, namely the Agriculture, Forestry and fisheries, mining and quarrying sectors, water supply and other waste processing, construction and real estate. West Sumatera Province has 8 basic sectors, namely agriculture, forestry and fisheries, water supply and other waste processing, wholesale trade and vehicle repair, transportation and warehousing, information and communication, government administration and others, education services, health services and social activities.

Riau Province has three basic sectors namely Agriculture, Forestry and fisheries, mining and quarrying, Processing Industry. Jambi Province has 6 basic sectors, namely Agriculture, Forestry and fisheries, mining and quarrying, water supply and other waste processing, government administration and others, education services and health services and activities. Bengkulu Province 9 basic sectors, namely Agriculture, Forestry and fisheries, water supply and other waste processing, wholesale trade and vehicle repair, transportation and warehousing, real estate, corporate services, government administration and others, education services and health services and social activities and the Province Lampung has 4 basic sectors, namely Agriculture, Forestry and fisheries, water supply

and other waste processing, transportation and warehousing, real estate.

Results of Results of Klassen Typology Analysis in Seven Provinces in Sumatera Island, 2014-2019.

Through the calculation of class typology, it can be seen that the economic conditions in the seven research provinces on the island of Sumatra, by grouping each province into four quadrants:
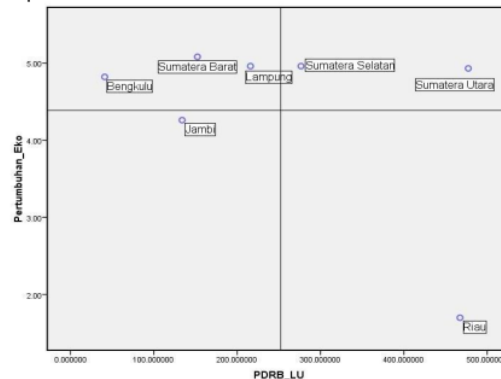

Figure 1. Quadrant Of Klassen Typology
Source: SPSS data processed, 2020.

1. In quadrant I, (a fast-growing and growing area) which consists of the Provinces of South Sumatra and North Sumatra. which means that the rate of economic growth and GDP per capita in each of these provinces is greater than the rate of economic growth and GDP per capita in 7 provinces in the research on the island of Sumatra.
2. In quadrant II, (developed but depressed areas) the province of Riau means that it means that the GDP per capita is greater than the GDP per capita in the 7 provinces in the study on the island of Sumatra, but the economic growth rate is lower than the economic growth rate of the 7 Provinces in research on the island of Sumatra.
3. In Quadrant III, (fast developing areas) consisting of West Sumatra, Lampung and Bengkulu Provinces because the GRDP per capita of each province is lower than the GRDP in the 7 provinces in the study on Sumatra Island, but the economic growth rate of each province is higher. greater than the economic growth rate of 7 provinces in the study on the island of Sumatra.
4. In quadrant IV, (relatively underdeveloped areas), namely Jambi

Province is the quadrant that covers the most areas of the other coups, namely there are six regions such as Lampung ,Bengkulu, West Sumatra, North Sumatra, South Sumatra and Riau, because of GRDP per capita and the economic growth of the province is lower than the GDP per capita and the economic growth rate of 7 provinces in the research on the Island of Sumatra.

5. Conclusion

The results of the calculation of Location Quotient (LQ) 7 Provinces on Sumatera Island for multiyears from 2014-2019 North Sumatera Province has 6 base sectors, South Sumatera Province has 5 base sectors, West Sumatera Province has 8 base sectors, Riau Province has 3 base sectors , Jambi Province has 6 base sectors, Bengkulu Province has 9 base sectors and Lampung Province 4 base sectors. Furthermore, the results of Klasen Typology Analysis in 7 Provinces on the island of Sumatra from 2014-2019, in quadrant I, (fast-growing and growing areas) consisting of South Sumatra and North Sumatra Provinces, in quadrant II, (developed but depressed areas) which Riau Province, In Quadrant III, (fast developing area) which consists of West Sumatra, Lampung and Bengkulu Provinces, in quadrant IV, (relatively underdeveloped areas) namely Jambi Province.

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