



AN ANALYSIS OF THE LEADING ECONOMIC SECTOR IN SOUTH SULAWESI PROVINCE

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ABSTRACT

The aim of this research is to analyze leading economic sector in south sulawesi province. The method used in this research is Location Quotient Analysis (LQ) and Shift Share Analysis. The research held on july 2020 by using GDRP data of South Sulawesi 2015-2019 period and indonesian GDP data 2015-2019. The result of this research show that in south sulawesi province there 9 economic caterogies which have basic sector namely agriculture, forestry, and fishery: water supply, waste management, waste and recycling; construction, wholesale and retail: car and motorcycle repairment; information and communication: Real Estate; Government administration, defence and sosial security compulsory; Educational Service: Health service and social activity. The result of Shift Share show that the slowest sector in South Sulawesi province is mining and quarrying sector. Whereas, the other 16 sectors are developing sectors

Keywords: Superior Sector, Location Quotient, Shift Share

INTRODUCTION

Region economic growth is an increase of society income which occure in a region, the increase of all added value which occure in the region (Robinson Tarigan 2012 : 46). For the last 5 years, the average of economic growth rate in South Sulawesi Province was 7.16 percent. The rate of economic growth in south sulawesi donated by 17 trade sector are Agriculture, forestry, and fishery; Mining and Quarring; Manufacturing Industry; Procurement of Electricity and Gas; Water supply, waste management, waste and recycling; Construction; Wholesale and retail: Car and motorcycle repairment : Transportation and Warehousing ; The Provision of Accomodation along with food and drink; Information and Communication; Finansial service and insurance; Real Estate; Company Service; Government Administration, Defence and Social Security Compulsory; Educational Service; Health Service and social activity; Etc.

Inside economic development, when a resource has been allocated to goods and services in particular sector, then the availability of resource allocated to other goods and services become very limited. There is competence between sector in using resource (Sahara 2017). Therefore, the planning to develop economical sectors which based in primary of resources fully needed.

Economical Sectors which developed should greatly contribute towards economic growth in a region (Sahara, 2017). While the period of 2015-2019, Economical Structure of South Sulawesi dominated by 4 categories of trade sector are Agriculture, forestry, and Fishery; Wholesale and retail, Car and motorcycle repairment; Construction; and Manufacturing industry.

Table 1. South Sulawesi GDRP contribution at Current Price based on Trading Fields (2015-2019)

<i>Lapangan Usaha</i>	2015	2016	2017	2018*	2019**
<i>Agriculture, Forestry, and Fishery</i>	23,14	23,43	23,13	22,52	21,28
<i>Mining and Quarring</i>	6,32	5,19	4,91	4,80	4,62
<i>Manufacturing Industry</i>	13,88	14,06	13,82	12,87	13,16
<i>Procurement of Electricity and Gas</i>	0,06	0,06	0,06	0,06	0,06
<i>Water Supply, Waste Management, Waste and Recycling</i>	0,11	0,10	0,10	0,10	0,09
<i>Construction</i>	12,39	12,63	12,89	13,55	14,18
<i>Wholesale and retail; Car and motorcycle repairment</i>	12,86	13,27	13,71	14,39	14,80
<i>Transportation and Warehousing</i>	4,19	4,29	4,21	4,28	4,23
<i>Provision of Accomodation along with food and drink</i>	1,34	1,32	1,37	1,41	1,41
<i>Information and Communication</i>	4,62	4,66	4,80	4,93	5,05
<i>Finansial Service and insurance</i>	3,60	3,81	3,80	3,71	3,66
<i>Real Estate</i>	3,99	3,95	3,82	3,71	3,65
<i>Company Service</i>	0,44	0,44	0,44	0,46	0,47
<i>Government Administration, Defence and Social Security Compulsory</i>	4,78	4,47	4,38	4,47	4,62
<i>Educational Service</i>	5,08	5,07	5,24	5,29	5,26
<i>Health Service and social activity</i>	1,91	1,94	1,97	1,99	2,01
<i>Etc</i>	1,28	1,31	1,34	1,44	1,44
GDRP	100,00	100,00	100,00	100,00	100,00

*) temporary data

**) very temporary data

Source : GDRP Sulawesi Selatan according to trade sector 2015-2019

Although the agricultural sector provides the largest contribution in economical establishment of South Sulawesi, however during the period of 2015-2019, the contribution of agricultural sector has been decreasing. Likewise, there are other sectors have decreased slowly; a significant increase, constant and fluctuating.

The reseach about determining leading sector has been done in various regency in South Sulawesi, including the research conducted by Nasaruddin et al about An analysis of Basic Sector Potential and Shifting Economic Structure Implication towards economically in Maros regency ([GDRP Data 2014-2018](#)) whose reseach result show that based on the result of Location Quotient analysis, there are 3 sectors which the basic sector in Maros are Mining and Quarring; Manufacturing industry; Transportation and Warehousing.

The research conducted by Sapriadi Hasibuan about An Analysis of Determining Superior Sector for Economy in Bulukumba regency ([GDRP data 2008-2012](#)) show that the result of Basic sector for Bulukumba regency is Agriculture, and services.

The research about An Analysis of Superior Sector based on regional potential in Bantaeng regency of South Sulawesi ([GDRP data 2017](#)) conducted by Andi Nur Apung and Andi Ummung show there are 7 sectors which are Agriculture, forestry and Fishery; Procurement of Electricity and Gas; Real Estate; Government Administration, Defence and Social Security Compulsory; Services etc.

The results obtained from research at regent level is variously. It is because the characteristic in every regent is different. There a region with a few basic sector and there a region with a large basic sector. It is because the various of leading sectors in regent level become a basic for leading sector research in province level. A regent who has the same leading sector with province is expected to become the same basic for making a future regional development.

METHOD

This research held on July 2020 by using Gross Domestic Regional Product (GDRP) South Sulawesi in 2015-2019 period and Indonesian Gross Domestic Product (GDP) 2015-2019 by using Location Quotient (LQ) and Shift Share Analysis.

Location Quotient is a method for counting the relative comparison of added value in the sector toward contribution of added value to a concerned sector on a province or national scale. The Formula of LQ is :

$$LQ = \frac{S_{ib}/S_b}{S_{ia}/S_a}$$

Where :

S_{ib} = Sector i income for the lower region (South Sulawesi)

S_b = Total income of all lower region (South Sulawesi)

S_{ia} = Sector i income for the higher region (National)

S_a = Total income of all higher region (National)

If $LQ > 1$ = Basic Sector.

Basic Sector: a sector who export goods and services or labour to outside the place concerned of regional economy.

Shift Share analysis is an analyze about various indicator changing of economy activity, such as production and chance for working in 2 different time in a region. There a 3 concept of growth component in shift-share analysis is:

National Growth Component with formula :

$$PN_{ij} = (R_a)Y_{ij}$$

Where:

PN_{ij} = Sector i national growth component for y region

Y_{ij} = production from i sector on j region in the basic years of analysis

R_a = The national ratio of production

Proportional Growth Component with formula :

$$PP_{ij} = (R_i - R_a)Y_{ij}$$

Where:

PP_{ij} = Sector i proportional growth component for j region

R_i = The national ratio of production from i sector

R_a = The national ratio of production

Y_{ij} = Production from i sector on j region in the basic years of analysis

If :

$PP_{ij} < 0$, showed that I sector on j region has late growth.

$PP_{ij} > 0$, showed that I sector on j region has rapid growth.

Regional Growth Component with formula :

$$PPW_{ij} = (r_i - R_i)Y_{ij}$$

Where:

PPW_{ij} = The regional growth component of I sector for j region

Y_{ij} = Production from i sector on j region in the basic years of analysis

R_i = The national ratio of production from i sector

r_i = The ratio of production I sector from j region

If :

$PPW_{ij} > 0$, it means i sector in j region has a good competitiveness compared with the same sector in the region which being compared

$PPW_{ij} < 0$, it means i sector in j region has not a good competitiveness compared with the same sector in the region which being compared

Net Shift

If proportional growth componen and regional growth are totaled, a net shift is obtained which can be used to identify growth in economic sector. Net shift I sector on j region can be used as:

$$PB_{ij} = PP_{ij} + PPW_{ij}$$

Where :

PB_{ij} = Net shift I sector on j region

PP_{ij} = Proportional growth component i sector on j region

PPW_{ij} = The regional growth component of I sector for j region

If :

$PB_{ij} > 0$, The growth of I sector on j region include to rapid category.

$PB_{ij} < 0$, The growth of I sector on j region include to late category.

RESULTS AND DISCUSSION

Location Quotient (LQ) Analysis

The use of LQ method is to determine the leading sector, to determine which sector have potential to be exported outside the region and identifying which sector do not have potential to be exported again. It can be provided on the result of LQ. If LQ show a number

more than 1, it means that is a basic sector. But if LQ show a number less than 1, it means that is not a basic sector.

Following are the result of LQ in South Sulawesi for the last 5 years (2015-2019)

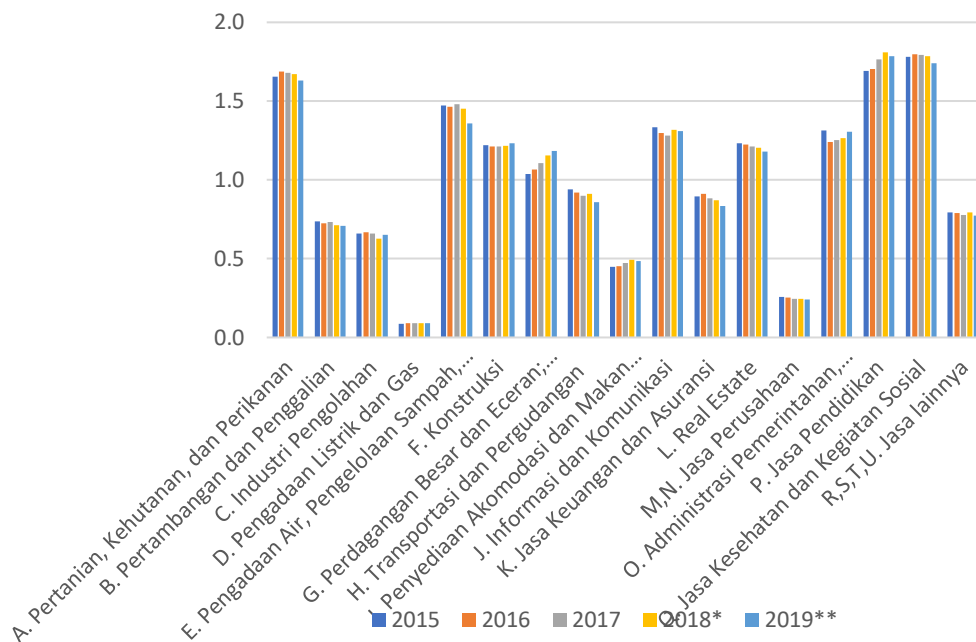


Figure 1. LQ Sectoral in south sulawesi (2015-2019)

*) : temporary data

**): very temporary data

Source : GDRP Sulsel and GDP Indonesia ADHK (2015-2019) processed

In graphic 1, there a 9 business sectors among 17 sectors which are the basic sector or leading sector in south sulawesi, namely educational service and social activity in the first place with an average value of 1.779, and Educational service with 1.751, agriculture, forestry and fishery in the third place with 1.665, the fourth place are Water supply, waste management, waste and recycling with 1.446, the fifth place is information and communication with 1.307, Government Administration, Defence and Social Security Compulsory in the sixth place with 1.276, the seventh place is construction with 1.219, the ninth and tenth place are real estate and wholesale and retail; Car and motorcycle repairment with 1.211 and 1.109.

Meanwhile, there are 8 sector which are not a basic sector are mining and quarring, Manufacturing Industry, Procurement of Electricity and Gas, Transportation and Warehousing, The Provision of Accomodation along with food and drink, Finansial service and insurance, company service and etc with 0,722; 0,653; 0,091; 0,906; 0,471; 0,879; 0,248; 0,786.

Shift Share Analysis

The use of shift share analysis is to see the growth of economic sector in a region towards economic growth on a wider region; to see the growth of economic sectors of compared as relatif with the other sectors; to see the growth of a region if compared with the other regions.

Table 2. The Result of Shift Share Analisis South Sulawesi Economy 2015-2019 (Billion Rupiah)

Sector	Ra	Ri	ri	PNij	PPij	PPWij	PBij
A. Agriculture, Forestry and Fishery	0,21	0,16	0,23	11.193,99	-2.719,16	4.084,92	1.365,76
B. Mining and Quarring	0,21	0,05	0,09	3.269,89	-2.469,18	634,24	-1.834,95
C. Manufacturing Industry	0,21	0,18	0,26	7.355,30	-1.068,27	2.997,83	1.929,56
D. Procurement of Electricity and Gas	0,21	0,17	0,35	47,68	-7,51	40,01	32,50
E. Water Supply, Waste Management, Waste and Recycling	0,21	0,22	0,22	62,67	4,59	-0,42	4,17
F. Construction	0,21	0,26	0,38	6.200,72	1.613,90	3.450,74	5.064,64
G. Wholesale and Retail; Car and Motorcycle repairment	0,21	0,19	0,47	7.224,57	-475,02	9.777,45	9.302,43
H. Transportation and Warehousing	0,21	0,33	0,31	1.891,73	1.106,33	-157,81	948,52
I. Provision of Accomodating along with food and drink	0,21	0,24	0,45	697,32	110,17	718,42	828,59
J. Information and Communication	0,21	0,40	0,49	3.251,19	2.995,01	1.380,37	4.375,38
K. Financial Service and Insurance	0,21	0,28	0,29	1.792,42	596,60	134,59	731,19
L. Real Estate	0,21	0,19	0,23	1.903,10	-185,51	361,11	175,60
MN. Company Service	0,21	0,39	0,42	219,23	198,74	29,71	228,45
O. Government Administration, Defence and Social Security Compulsory	0,21	0,18	0,27	2.351,01	-312,65	1.022,88	710,22
P. Educational Service	0,21	0,21	0,38	2.768,13	-11,96	2.276,43	2.264,46
Q. Health Service and Social Activity	0,21	0,31	0,38	1.002,55	490,83	369,62	860,45
RSTU. Etc	0,21	0,41	0,49	663,75	666,59	253,32	919,91

Source : GDRP Sulsel and GDP Indonesia (2015, 2019) processed data

Based on the result of Proportional Growth, there are 8 sectors whose value is below zero ($PP_{ij} < 0$) it means that sectors has late growth. These sectors are agriculture, forestry and Fishery, Mining and Quarring, Manufacturing Industry, Procurement of Electricity and Gas, Wholesale and Retail; Car and Motorcycle Repairment, Real Estate, Government Administration, Defence and Social Security Compulsory, and Educational Service.

Based on the result of Regional Growth, there are 2 sectors whose value is below zero ($PPW_{ij} < 0$) it means that sectors has not competitiveness compared with the same sector which become a compare. These sectors are Water supply, waste management, waste and recycling; and Transportation and Warehousing.

Based on the result of Net Shift, only 1 sector whose value is below zero ($PB_{ij} < 0$). It means that sectors include to late sector. These sectors are Mining and Quarring.

For further discussion about leading sector in south sulawesi, it can be done by evaluate the growth profile of economic sector. The growth profile is used to evaluated the growth sector in concerned region on predetermined perion by using $\% \Delta PP_{ij}$ and $\% \Delta PPW_{ij}$. On the

horizontal axis there is proportional growth as an abscissa, and on the vertical axis there is regional growth as an ordinate.

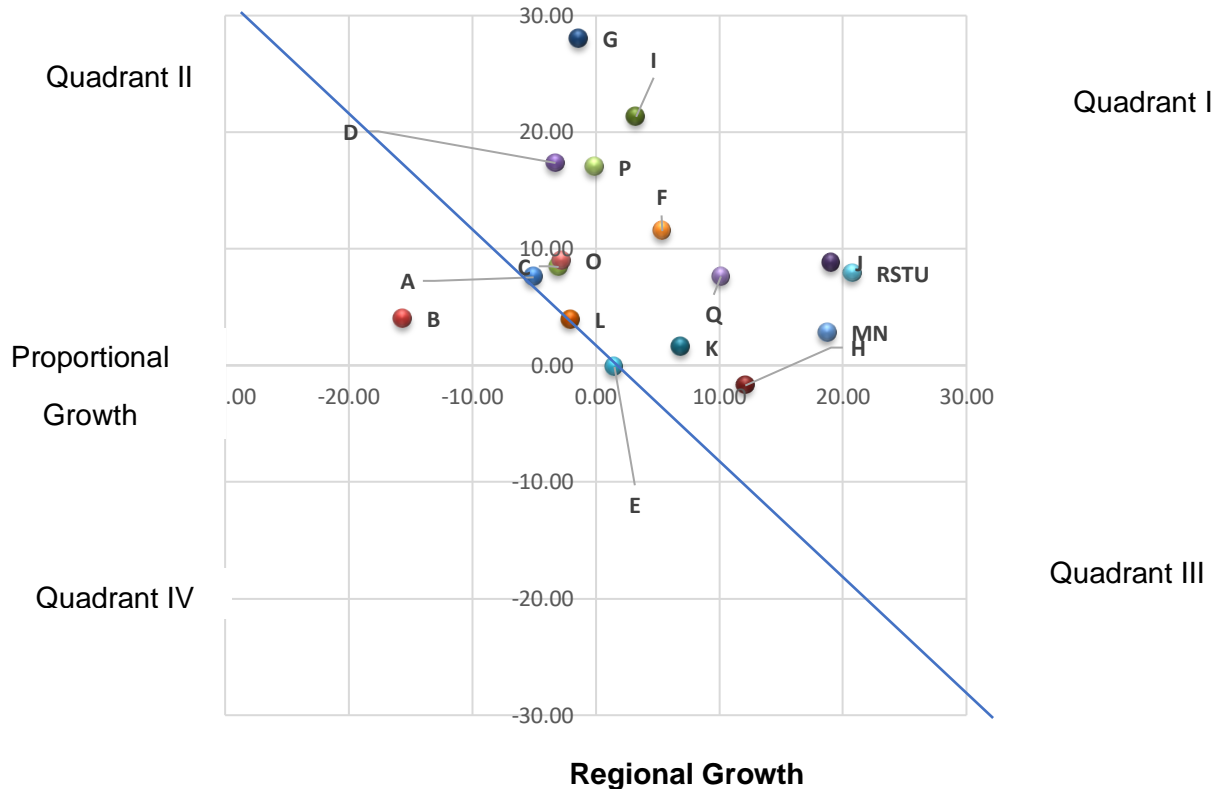


Figure 2. South Sulawesi Economic Sector Growth Profile 2015-2019

Quadrant I shows that sectors in the concerned region have rapid growth, and so do with competitiveness sectors. The sectors in quadrant I are construction, Provision of Accommodation along with food and drink, Government Administration, Defence and Social Security Compulsory, Information and Communication, Company service and etc.

Quadrant II shows that sectors in the concerned sector, in this case South Sulawesi, have rapid sector, but the competitiveness for those sector is not good. Those sector are transportation and warehouse.

Quadrant III shows that sector in the concerned sector, in this case South Sulawesi has a late growth with the not good competitiveness. There is no sector in this quadrant.

Quadrant IV shows that sector in the concerned sector, in this case South Sulawesi has a late growth, and competitiveness in this sectors is good. Those sectors are Wholesale and Retail; Car and motorcycle repairment, Procurement of Electricity and Gas, Agriculture, forestry, and fishery, Mining and Quarring, Manufacturing Industry, Government Administration, Defence and Social Security Compulsory, and Real Estate.

In quadrant II and IV, there is an oblique line who form and angle and intersects the two quadrants. The upper part of the line indicates that the sector is progressive (advanced), and the line means the sector concerned indicates a late sector. Only 1 sector which a late sector is mining and quarring, and 16 other sectors is a rapid sector.

CONCLUSION

Based on the result of Location Quotient (LQ) analysis, it is found that economic sector which is classified as basic sector in south sulawesi on 2015-2016 with an average $LQ > 1$ is : Agriculture, forestry, and fishery is 1,665; Water supply, waste management, waste and recycling is 1,446; Construction is 1,219; Wholesale and Retail : Car and motorcycle repairment is 1,109; Information and Communication is 1.307; Real Estate is 1,211; Government Administration, Defence and Social Security Compulsory is 1,276; Educational Service is 1,751; Health Service and social activity is 1,779.

There a 3 sectors which is a leading sector in south sulawesi by fulfill the criteria: Rapid Growth, good competitiveness, basic sector and progresive are construction, information and communication, Government Administration, Defence and Social Security Compulsory.

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