

**ANALYSIS OF LOCATION QUOTIENT AND SHIFT SHARE IN RIAU PROVINCE****Anto Ariyanto, Desma Harmaidi\*, Khairunnas, and Hamdan Yasid**Agribusiness Study Program, Faculty of Agriculture, Universitas Lancang Kuning, Pekanbaru,  
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**ABSTRACT**

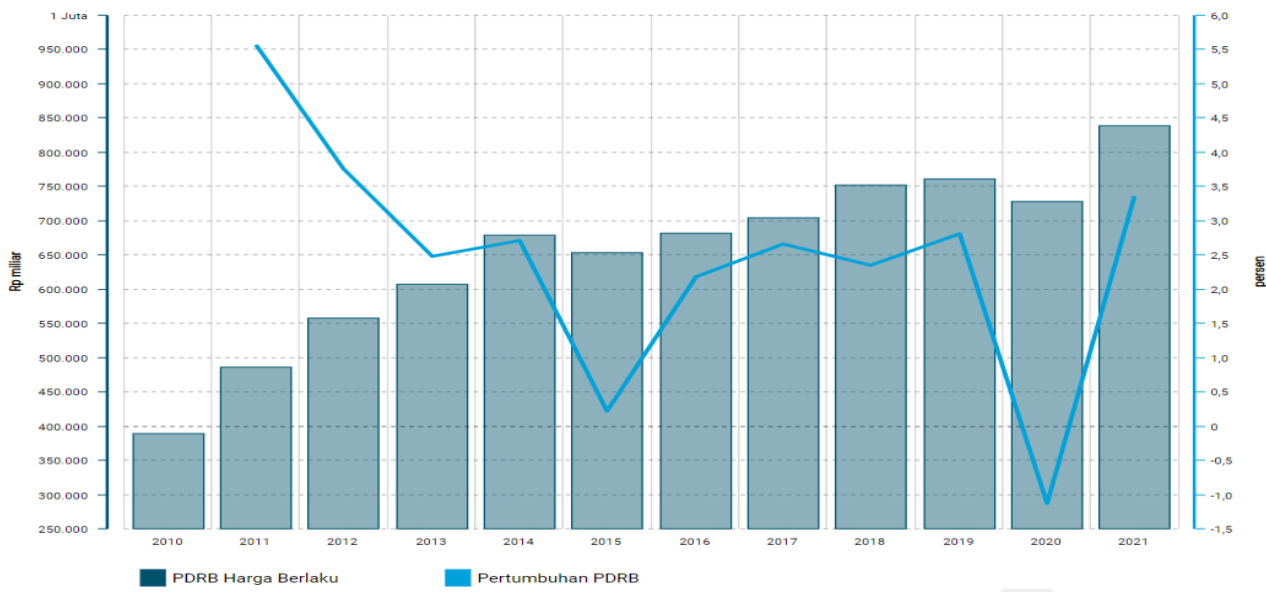
Sustainable economic growth is an absolute requirement for the economic development of a region, both on a regional and national scale. The government should develop sectors that are capable of providing a multiplier on other sectors. This is also very much needed by the Province of Riau. This study aims to identify and analyze the leading sectors that have competitive competitiveness and to determine the priority of the base sector as information material and considerations especially for the Provincial Government of Riau in the development of economic development in the future. This study uses secondary data in the form of Riau Province sectoral GDP and Indonesia's sectoral GDP based on constant 2010 prices. The type of data collected is in the form of a time series from 2015 to 2021 obtained from the Central Bureau of Statistics of Riau Province and the Indonesian Central Bureau of Statistics. The data is then analyzed with a quantitative descriptive approach using the Location Quotient (LQ). Based on the LQ method, there are 3 leading sectors in Riau Province, namely Agriculture, Forestry and Fisheries, Mining and Quarrying and Processing Industry. The three sectors have an LQ above 1, which means that these sectors are the base sectors. The three PDRB sectors from 2015–2021 have continued to increase except for the mining and quarrying sector which has continued to decline every year but is still the basis sector for economic growth in Riau.

**Keywords:** *economic growth, GDP, Province of Riau, leading sector, location quotient***BACKGROUND**

Economic growth is one of the macro indicators to see real economic performance in a region. The rate of economic growth is calculated based on changes in GRDP at constant prices for the year in question compared to the previous year. Economic growth can be seen as an increase in the amount of goods and services produced by all business fields of economic activity in an area during a certain period of time. Gross Regional Domestic Product (GRDP) is one of the economic data sets that can be used to evaluate the economic development performance of a region in a certain period, either at current prices or at constant prices. GRDP is basically the total added value generated by all business units in a certain area, or the total value of final goods and services produced by all economic units in a certain area. GRDP value can represent the economic growth of a region. As one example in this discussion, a calculation and analysis of the PDRB of Riau Province is carried out from 2015 to 2021 which has increased every year. The increase in the GRDP value of Riau Province indicates that there is an increase in economic growth.

The Central Statistics Agency or BPS Riau Province (2022) noted that Riau's economy according to gross regional domestic product (GDP) at current prices (ADHB) is Rp 843.21 trillion

in 2021. This province's GRDP is the second largest in Sumatra and the 6th largest nationally. If measured by GRDP at constant prices (ADHK) 2010, Riau's economy will grow 3.36% to Rp 506.46 trillion in 2021 from the previous year. This achievement was higher than in 2020 where Riau's economy contracted by 1.13% due to the Covid-19 pandemic. Riau's economy in 2021 was recorded as contributing 22.92% to Sumatra's GRDP, with a growth rate above the average growth of Sumatra's GRDP of 3.18%. In terms of business field, in 2021 the processing industry will be the largest pillar of Riau's economy, reaching 28.08% of GRDP. Followed by the agricultural sector with a contribution of 26.83%, and the mining and quarrying sector with 19.83% of GRDP. The accommodation and food and drink provision sector recorded the highest growth in 2021, namely 17.44%. Followed by the health services sector and social activities which grew 11.54% and the information and communication sector grew 7.28%. From the expenditure side, the foreign export component supports Riau's economy with a contribution of 36.02% of GRDP. After that there is a household consumption expenditure component of 35.51% and gross fixed capital formation (PMTB) of 33.67%.



Source: BPS Riau Province, 2022

Economic growth is an important part that is inseparable from achieving economic development. Therefore, it is necessary to analyze the areas that are the mainstay of leading sectors to encourage economic growth in Riau Province. So that economic development planning can be realized in a structured manner based on sectoral potential. If viewed from the value of the regional GRDP sector, the mining and quarrying sector has a major role in increasing the GRDP of Riau Province. However, it is not yet certain that the mining and quarrying sector is the basis of Riau Province, because a value calculation is required Location Quotient (LQ) is needed to determine the basic and non-base sectors owned by Riau Province.

Apart from that, the key to the successful implementation of regional economic growth is not only based on the readiness of government officials, but also the readiness of the community to support the implementation of regional autonomy by optimally utilizing resources. The role of the community as well as external parties who wish to carry out activities in the area is very much needed in preparing regional development plans. The government acts as a regulator in planning and

implementing regional development so that the main goal of regional autonomy, namely regional independence, can be realized smoothly. Regional development must be in accordance with the potential conditions and aspirations of the growing and developing community. If the implementation of regional development priorities is lacking, the utilization of existing resources will be less than optimal. To find out the basic and non-base sectors, it is necessary to conduct research or studies, which this research has never done before from 2015-2021 with the research title, namely "Location Quotient Analysis in Determining Base and Non-Base Sectors in Riau Province".

## RESEARCH METHODS

The object of this study is the value of the Gross Regional Domestic Product (GDP) produced by Riau Province from 2015 to 2021 on the basis of current prices and constant 2010 prices. Data for 2015-2021 is cyclical data which can be used as a reference for studies for research results. The research method uses two analytical tools. The first is Location Quotient (LQ) Analysis which aims to see the leading sector in a place and the second is Shift – Share Analysis. This analysis is used to identify whether an industry located in Riau Province is included in the group of industrial areas that are indeed developing rapidly in the State of Indonesia and whether the industry is suitable to be located in Riau Province or not. Shift-share analysis in this study uses a value-added variable (regional income level) or Gross Regional Domestic Product (GRDP) data based on 2010 constant prices. The research procedure are follows:

1. Collecting GRDP data for Riau Province from 2015 – 2021 based on constant 2010 prices
2. Analyzing the PDRB of Riau Province with Location Quotient (LQ) analysis
  - a. Workforce Approach. LQ is a comparison between the role of an economic sector in an area to the magnitude of the role of the same economic sector nationally or a comparison to an area that has a larger administrative scope (Tarigan, 2014). As for how to calculate LQ is as follows:

$$LQ = \frac{Li / Lt}{Ni / Nt}$$

- b. Value Added Approach

$$LQ = \frac{Vi / Vt}{Yi / Yt}$$

Information:

Li : Number of sector i workers at the lower regional level

Lt : Total workforce at the lower regional level

Ni : Number of sector i workers at the higher regional level

Nt : Total workforce at the higher regional level

Vi : GRDP value of sector i at the lower regional level

Vt : Total GRDP at the lower regional level

Yi : GRDP value of sector i at the upper regional level

Yt : Total GRDP at the upper regional level

Criteria:

- 1)  $LQ > 1$ , indicating that it is possible to do so exports in this sector. Exports are made because there is a surplus.
- 2)  $LQ < 1$ , means indicating that the sector is necessary import from other regions. Imports are made by sector have not been able to meet the needs of the region.
- 3)  $LQ = 1$ , means that the productivity of the sector is balanced. It means only enough to meet the needs of the people in the area only so that it is still not able to export the sector but not also import from other areas. This analysis can assist in determining the export capacity of the regional economy and the degree of self-sufficiency of a sector (Arsyad, 2015).

### 3. Analyzing GRDP Riau Province with Shift – Share analysis

According to Putra (2011), Shift-share analysis is an analysis to find out the shift in the share of the economic sector in Riau Province. Shift-share analysis is used to analyze economic performance area. There are three basic components that can be identified from the analysis this shift-share where these three components have a relationship with each other. The three components are:

- a. National share (Ns), Explaining the comparison of the economic growth of Riau Province with the economic growth of the wider area or the area used as a reference (National). The formula used to find the national share is:

$$N_{sr,i,t} = E_{r,i,t-n} (EN_{,t} / EN_{,t-n}) - E_{r,i,t-n}$$

- b. Proportional share (Ps), shows changes in the performance of an economic sector (business field) in Riau Province against the same sector in the reference area (National) with the formula:

$$P_{s,r,i,t} = \{(EN_{,i,t} / EN_{,i,t-n}) - (EN_{,t} / EN_{,t-n})\} \times E_{r,i,t-n}$$

- c. Differential shift (Ds), determines how far the competitiveness of the economy in Riau Province is with the area used as a reference (National) with the formula:

$$D_{s,r,i,t} = \{E_{r,i,t} - (EN_{,i,t} / EN_{,i,t-n}) E_{r,i,t-n}\}$$

### 4. Analyzing PDRB projections uses the following formula:

$$PDRB_{r,i,t+m} = PDRB_{r,i,t} \left[ \frac{PDRB_{N,i,t+m}}{PDRB_{N,i,t}} + \frac{m}{n} \frac{D_{r,i,t}}{D_{r,i,t-n}} \right]$$

Information:

- $\Delta$  : Addition, final number (year t) minus the initial number (year t-n)
- N : National / Indonesian territory
- r : Region or Province of Riau
- PDRB : Value Added/Income Level (Gross Regional Domestic Product)
- i : Industries sectore
- T : Year
- D : Differential Shift
- t-n : Year of Beginning
- t+m : Projection year
- Ns : National Share
- P : Proportional Shift

## RESULT AND DISCUSSION

### Analysis of Location Quotient Riau Province from 2015 to 2021

Analysis Location Results (LQ) is used to determine the economic sectors in GRDP which can be classified into basic and non-base sectors. LQ is a comparison of the size of the role of a sector in Riau Province against the size of the role of the sector at the national level in this study, namely Indonesia. The results of the analysis of the LQ table 1 show that there are 3 (three) sectors that will become the base sector (leading sector) in Riau Province from 2015 to 2021, namely: (1) Agriculture, Forestry, and Fisheries, (2) Processing Industry, (3) Mining and Quarrying. The three sectors have an average LQ value of 1.90 respectively: 1.470; 1.427.

Of the three sectors that have the highest LQ scores are the agriculture, forestry and fisheries sectors, which are equal to 1.90 and this sector is supported by the Riau Province. Sampoerna Group and others. BPS data until 2021 states that Riau Province is a province that has an area of oil palm plantations of 2860.80 thousand hectares and has an area of coconut plantations of 432.30 thousand hectares and the province that has the most HTI permits in Indonesia as many as 46 HTI permits issued (Indonesian Forest Entrepreneurs Association) and BPS also noted that in 2021 the largest contribution to economic growth in Riau would come from the agricultural sector with a growth rate of 1.63% (yoy), then the trade sector with a growth rate of 1.43% (yoy).

In addition, the development and role of Riau's non-oil and gas exports by sector during January-August 2022 compared to the same period in 2021 can be seen in Table 2. Non-oil and gas exports increased by 19.00%. This increase was due to the increase in agricultural and processing industry exports by 35.55% and 18.83% respectively compared to the same period in 2021. Judging from their contribution to the total export value in January-August 2022, non-oil and gas exports contributed 92.23%, while oil and gas exports 7.77%. The large role of the non-oil and gas sector is supported by the role of the processing industry sector of 91.14%.

The second sector is the processing industry of 1.470. Processing Industry is an economic activity that carries out activities to change basic goods mechanically, chemically, or by hand so that they become finished/semi-finished goods, and/or goods of less value into goods of higher value, and are closer in nature to the end user. Included in this activity are industrial/makloon services and assembly work. According to the BPS (2021), the industry classification used in the manufacturing industry survey is a classification based on International Standard Industrial Classification of all Economic Activities (ISIC) revision 4, which has been adapted to conditions in Indonesia under the name Indonesian Business Field Standard Classification (KBLI) in 2009 states that until now the development of the processing industry in Riau Province has been quite rapid compared to the previous year. The number of companies based on industry classification in Riau Province is 265 food industry companies, 9 chemical and chemical goods industrial companies, 17 non-metal mineral goods industrial companies, 11 paper and paper goods industrial companies and 53 other industrial units.

Furthermore, the third LQ is mining and quarrying, which is 1.420. This is supported by Riau Province, which is one of the oil and gas producing provinces in Indonesia. This is also evidenced by the growth in state revenues following rising oil prices and efficiency in oil and gas operations. As of September 2021, actual state revenue from the upstream oil and gas sector reached USD 9.53 billion or reached 131%, exceeding this year's target of USD 7.28 billion (Tutuka, 2021).

**Table 1.** Analysis for Location Quotient Riau Province from 2015 to 2021

No	Industry	LQ = xi/PDRB : Xi /PDB							Average	Information
		2015	2016	2017	2018	2019	2020	2021		
1	Agriculture, Forestry and Fishing	1.742	1.915	1.851	1.936	1.974	1.942	2.012	1.910	BASIS
2	Mining and Quarrying	1.735	1.757	1.511	1.429	1.303	1.148	1.103	1.427	BASIS
3	Manufacturing	1.304	1.471	1.415	1.450	1.504	1.544	1.599	1.470	BASIS
4	Electricity and Gas	0.046	0.054	0.047	0.048	0.053	0.063	0.065	0.054	NON BASIS
5	Water Supply, Sewerage, Waste Management and Remediation Activities	0.182	0.198	0.192	0.192	0.190	0.180	0.188	0.189	NON BASIS
6	Construction	0.728	0.013	0.753	0.763	0.772	0.762	0.774	0.652	NON BASIS
7	Wholesale and Retail Trade, Repair Of Motos Vehicles and Motorcycles	0.630	0.703	0.679	0.704	0.720	0.649	0.685	0.681	NON BASIS
8	Transportation and Storage	0.162	0.170	0.154	0.155	0.147	0.141	0.150	0.154	NON BASIS
9	Accomodation and Food Service Activities	0.147	0.162	0.156	0.163	0.163	0.142	0.169	0.157	NON BASIS
10	Information and Communication	0.227	0.244	0.221	0.228	0.231	0.232	0.245	0.233	NON BASIS
11	Financial and Insurance Activities	0.227	0.243	0.213	0.220	0.209	0.209	0.220	0.220	NON BASIS
12	Real Estate Activities	0.306	0.330	0.307	0.318	0.321	0.314	0.332	0.318	NON BASIS
13	Business Activities	0.003	0.003	0.003	0.003	0.003	0.002	0.002	0.003	NON BASIS
14	Public Administration and Defence	0.455	0.486	0.460	0.456	0.461	0.433	0.461	0.459	NON BASIS
15	Compulsory Social Security	0.139	0.148	0.141	0.146	0.149	0.143	0.154	0.146	NON BASIS
16	Education	0.166	0.176	0.167	0.172	0.179	0.178	0.187	0.175	NON BASIS
17	Human Health and Social Work Activities	0.166	0.176	0.167	0.172	0.179	0.178	0.187	0.175	NON BASIS
17	Other Services Activities	0.264	0.287	0.269	0.277	0.272	0.213	0.228	0.259	NON BASIS

Source: BPS (2022) and Processed Data (2022)

**Table 2.** Export Value of Riau Province by Sector, August 2022

Description	FOB (Thousand US\$)				Change (%)		Role in Total Exports Jan–Ags 2022 (%)
	Jul 2022	Agst 2022*	Jan–Ags 2021	Jan–Agst 2022*	Agst 22 to Juli 22 (m-to-m)	Jan– Agst 22 to Jan– Agst 21 (c-to-c)	
1	2	3	4	5	6	7	8
Total Eksports	2,136,562.34	2,457,477.65	13,046,036.68	15,058,255.17	15.02	15.42	100.00
Migas	104,450.15	127,130.47	1,375,069.33	1,169,472.82	21.71	14.95	7.77
Non Migas	2,032,112.19	2,330,347.17	11,670,967.36	13,888,782.35	14.68	19.00	92.23
Agriculture	19,366.19	26,337.60	121,899.47	165,239.48	36.00	35.55	1.10
Processing Industry	2,012,746.00	2,304,009.58	11,549,067.88	13,723,542.87	14.47	18.83	91.14

Source: Processed Data (2022)

**Riau Province Shift-Share Analysis from 2015 to 2021**

The Shift Share analysis is almost the same as the Location Quotion method, that is, they both use a comparison method between the growth rates of various sectors (industries) in Riau Province and Indonesia. However, the Shift Share method is sharper because it can provide an explanation or details of the causes of whether an industry located in Riau Province is included in the group of industrial areas that are indeed growing rapidly in Indonesia and that the industry is suitable for being located in Riau Province or not. Based on the calculation results in table 3 to table 5, we can see that the GRDP increase in Riau Province = Total GRDP of Riau Province in 2021 – Total GRDP of Riau Province in 2017 = 506,457.71 billion – 470,983.51 billion =35,474.19 billion. Or it can be proven by the following formula:

$$\text{Increase in GRDP of Riau Province} = \text{Total Ns} + \text{Total P} + \text{Total D} = 115,996 + 16,440 + (- 96,961) = 35,474.19 \text{ billion}$$

Based on table 4, it can be seen that there are 8 (eight) sectors in Riau Province which have a negative Proposal Shift value including: (1) Processing Industry, (2) Electricity and Gas Procurement, (3) Wholesale and Retail Trade, Car Repair and Motorcycles (4) Transportation and Warehousing, (5) Provision of Accommodation and Food and Drink, (6) Real Estate, (7) Government Administration. Compulsory Defense and Social Security and (8) Education Services. The eight sectors have respective Proposal Shift values: - 7,525, - 21, - 97, - 1,089, - 395, - 90, - 630, - 5, this means that the eight sectors have no structural profit relationship, meaning that the eight the sector specializes in slow-growing sectors in Riau.

Meanwhile, there are 9 (nine) sectors that have structural advantages in Riau Province, namely: (1) Agriculture, Forestry and Fisheries, (2) Mining and Quarrying, (3) Water Procurement, Waste Management, Waste and Recycling, (4) ) Construction, (5) Information and Communication, (6) Financial and Insurance Services, (7) Corporate Services, (8) Health Services and Social Activities and (9) Other Services, with each Proportional Share value of: 1,703; 22.743; 2 ; 375; 865; 186; 0.46; 280; 136. This suggests that all nine sectors specialize in fast growing sectors in Riau. Of the nine sectors that have structural advantages, the mining and quarrying sector has the greatest structural advantage because it has the highest proportional share value of 22,743. This means that mining and quarrying is the fastest growing sector in Riau.

Based on Table 5. Differential Shift calculations show that there is 1 (one) that has a locational advantage, namely the procurement of electricity and gas, meaning that the electricity and gas procurement sector is strategically advantageous in Riau province, while the other 16 (sixteen) sectors

do not have a locational advantage, including: (1) Agriculture, Forestry and Fishery, (2) Mining and Quarrying, (3) Processing Industry, (4) Water Procurement, Waste Management, Waste and Recycling, (5) Construction, (6) Wholesale Retail Trade, Car and Motorcycle Repair, (7) Transportation and Warehousing, (8) Provision of Accommodation and Food and Drink, (9) Information and Communication, (10) Financial Services and Insurance, (11) Real Estet, (12) Company Services, (13) Government Administration. Defense and Social Security, (14) Education Services, (15) Health Services and Social Activities and (16) Other Services. This means that the sixteen sectors are locationally disadvantageous in Riau Province.

**Table 3.** National Share (Ns) Calculation

No	Industry	Riau GRDP	Total	Total	(b)	(a) x (b)	NS
		2017	Indonesian	Indonesian			
		E r,i,t-n	GDP 2021	GDP 2017			
	(a)	E N,t	E N,t-n	(c)	(c)-(a)		
1	Agriculture, Forestry and Fishing	119,281.64	16,284,694	13,066,599	1.246	148,659	29,377
2	Minning and Quarrying	97,348.95	16,284,694	13,066,599	1.246	121,324	23,975
3	Manufacturing	139,717.11	16,284,694	13,066,599	1.246	174,127	34,410
4	Electricity and Gas	275.07	16,284,694	13,066,599	1.246	343	68
5	Water Supplay, Sewerage, Waste Management and Remediation Activities	65.36	16,284,694	13,066,599	1.246	81	16
6	Construction	38,275.86	16,284,694	13,066,599	1.246	47,703	9,427
7	Wholesale and Retail Trade, Repair Of Motos Vehicles and Motorcycles	43,302.34	16,284,694	13,066,599	1.246	53,967	10,665
8	Transportation and Storage	4,070.19	16,284,694	13,066,599	1.246	5,073	1,002
9	Accomodation and Food Service Activities	2,179.20	16,284,694	13,066,599	1.246	2,716	537
10	Information and Communication	4,094.53	16,284,694	13,066,599	1.246	5,103	1,008
11	Financial and Insurance Activities	4,381.00	16,284,694	13,066,599	1.246	5,460	1,079
12	Real Estate Activities	4,223.51	16,284,694	13,066,599	1.246	5,264	1,040
13	Business Activities	26.02	16,284,694	13,066,599	1.246	32	6
14	Public Administration and Defence Compulsory Social Security	8,282.84	16,284,694	13,066,599	1.246	10,323	2,040
15	Education	2,266.74	16,284,694	13,066,599	1.246	2,825	558
16	Human Health and Social Work Activities	872.90	16,284,694	13,066,599	1.246	1,088	215
17	Other Services Activities	2,320.26	16,284,694	13,066,599	1.246	2,892	571
	AMOUNT	470,983.51			21.187	586,979	115,996

Source: Processed Data (2022)



**Table 4.** Proportional Share (P) Calculation

No	Industry	Riau	Indonesia	Indonesian	Total GDP of Indonesia 2021	Total GDP of Indonesia 2017	P			
		GRDP	GDP 2021	GDP 2017						
		2017								
	$E_{r,i,t-n}$	$E_{N,i,t}$	$E_{N,i,t-n}$	(b)	$E_{N,t}$	$E_{N,t-n}$	(c)	$b-c$	(d)	axd
	(a)	$E_{N,i,t}/E_{N,i,t-n}$	$E_{N,i,t-n}$	(b)	$E_{N,t}/E_{N,t-n}$	$E_{N,t-n}$	(c)	(d)		
1	Agriculture, Forestry and Fishing	119,281.64	2,253,837	1,787,963	1.26	16,284,694	13,066,599	1.246	0.014	1,703
2	Mining and Quarrying	97,348.95	1,523,650	1,029,555	1.48	16,284,694	13,066,599	1.246	0.234	22,743
3	Manufacturing	139,717.11	3,266,904	2,739,712	1.19	16,284,694	13,066,599	1.246	- 0.054	- 7,525
4	Electricity and Gas	275.07	190,047	162,340	1.17	16,284,694	13,066,599	1.246	- 0.076	- 21
5	Water Supply, Sewerage, Waste Management and Remediation Activities	65.36	12,025	9,439	1.27	16,284,694	13,066,599	1.246	0.028	2
6	Construction	38,275.86	1,771,727	1,410,514	1.26	16,284,694	13,066,599	1.246	0.010	375
7	Wholesale and Retail Trade, Repair Of Motos Vehicles and Motorcycles	43,302.34	2,200,529	1,768,865	1.24	16,284,694	13,066,599	1.246	- 0.002	- 97
8	Transportation and Storage	4,070.19	719,633	735,230	0.98	16,284,694	13,066,599	1.246	- 0.267	- 1,089
9	Accomodation and Food Service Activities	2,179.20	412,261	387,013	1.07	16,284,694	13,066,599	1.246	- 0.181	- 395
10	Information and Communication	4,094.53	748,755	513,716	1.46	16,284,694	13,066,599	1.246	0.211	865
11	Financial and Insurance Activities	4,381.00	736,189	571,204	1.29	16,284,694	13,066,599	1.246	0.043	186
12	Real Estate Activities	4,223.51	468,222	382,259	1.22	16,284,694	13,066,599	1.246	- 0.021	- 90
13	Business Activities	26.02	301,085	238,217	1.26	16,284,694	13,066,599	1.246	0.018	0.46
14	Public Administration and Defence Compulsory Social Security	8,282.84	584,361	499,344	1.17	16,284,694	13,066,599	1.246	- 0.076	- 630
15	Education	2,266.74	556,318	447,138	1.24	16,284,694	13,066,599	1.246	- 0.002	- 5
16	Human Health and Social Work Activities	872.90	226,971	144,831	1.57	16,284,694	13,066,599	1.246	0.321	280
17	Other Services Activities	2,320.26	312,180	239,259	1.30	16,284,694	13,066,599	1.246	0.058	136
	AMOUNT	470,983.51	16,284,694	13,066,599	21.443			21.187	0.256	16,440

Source: Processed Data (2022)

**Table 5.** Differential Shift Calculation

No	Industry	Riau	Indonesia	Indonesian		Riau	D r,i,t	
		GRDP	GDP 2021	GDP 2017		GRDP		
		2021				2017	(a) - (d)	(a) - (d)
		E r,i,t-n	E N,t	E N,t-n	(b)	E r,i,t-n	(b) x (c)	(a) - (d)
		(a)	E N,t/E N,t-n=(b)			(c)	(d)	
1	Agriculture, Forestry and Fishing	141,058.087	2,253,837.00	1,787,963.00	1.261	119,281.644	150,361.83	- 9,304
2	Minning and Quarrying	77,333.250	1,523,650.00	1,029,555.00	1.480	97,348.953	144,067.81	- 66,735
3	Manufacturing	162,436.922	3,266,904.00	2,739,712.00	1.192	139,717.112	166,602.33	- 4,165
4	Electricity and Gas	385.540	190,047.00	162,340.00	1.171	275,067	322.01	64
5	Water Supply, Sewerage, Waste Management and Remediation Activities	70.263	12,025.00	9,439.00	1.274	65,361	83.27	-13
6	Construction	42,630.306	1,771,727.00	1,410,514.00	1.256	38,275.863	48,077.78	- 5,447
7	Wholesale and Retail Trade, Repair Of Motos Vehicles and Motorcycles	46,853.897	2,200,529.00	1,768,865.00	1.244	43,302.339	53,869.60	- 7,016
8	Transportation and Storage	3,347.983	719,633	735,230	0.979	4,070.185	3,983.84	- 636
9	Accomodation and Food Service Activities	2,162.172	412,261	387,013	1.065	2,179.200	2,321.37	- 159
10	Information and Communication	5,704.892	748,755	513,716	1.458	4,094.532	5,967.89	- 263
11	Financial and Insurance Activities	5,028.141	736,189	571,204	1.289	4,381.000	5,646.40	- 618
12	Real Estate Activities	4,840.830	468,222	382,259	1.225	4,223.508	5,173.30	- 332
13	Business Activities	22.937	301,085	238,217	1.264	26,016	32.88	- 10
14	Public Administration and Defence Compulsory Social Security	8,374.822	584,361	499,344	1.170	8,282.843	9,693.06	- 1,318
15	Education	2,672.262	556,318	447,138	1.244	2,266.735	2,820.22	- 148
16	Human Health and Social Work Activities	1,318.956	226,971	144,831	1.567	872.899	1,367.96	- 49
17	Other Services Activities	2,216.448	312,180	239,259	1.305	2,320.256	3,027.42	- 811
	AMOUNT	506,457.71	16,284,694	13,066,599	21.443	470,984	603,418.95	- 96,961

Source: Processed Data (2022)

**CONCLUSION AND SUGGESTION**

Based on the location quotient (LQ) calculation, there are 3 (three) sectors in Riau Province, namely: (1) Forestry Agriculture. and Fisheries, (2) Mining and Quarrying, (3) Processing Industry. The three sectors have an average  $LQ > 1$ . The Mining and quarrying sector is the most stable sector to be used as a base activity in the Riau Province region, with a fairly high contribution and also the Riau Province's LQ value to the Riau Province's economy which is quite high making this activity an excellent basis for development because there are lots of positive impacts arising from this sector. Based on calculations Differential Shift is known that there is only 1 which has a locational advantage, namely the procurement of electricity and gas, while the other 16 sectors do not have a locational advantage, meaning that the procurement of electricity and gas is a sector that haselements of regional

economic growth that can increase export growth because the region concerned (Riau Province) has a competitive nature caused by a specific condition of the region (Adawiah & Wardhana, 2021).

Meanwhile, based on the calculation of the Proportional Share, there are 9 (nine) sectors, namely: (1) Agriculture, Forestry and Fishery, (2) Mining and Quarrying, (3) Water Procurement, Waste Management, Waste and Recycling, (4) Construction, (5) Information and Communication, (6) Financial Services and Insurance, (7) Corporate Services, (8) Health Services and Social Activities and (9) Other Services. This means that the nine sectors have an element of economic growth that specializes in sectors that are nationally growing fast. This economic growth is also known as the element of growth caused by a relatively good regional economic structure originating from within the region itself (Adawiah & Wardhana, 2021).

After knowing the basic and non-base sectors; sectors that have competitive advantages as well as sectors that have the potential to be developed, the government should prioritize sectors that are appropriate for development in order to accelerate the growth of GRDP in Riau Province. The policies carried out by the government must also pay attention to sectors belonging to the non-base sector in order to be able to increase the amount of GRDP income and meet the needs of the community both within the region and to meet the needs outside the Riau Province area. Riau Provincial Government must take appropriate action to increase GRDP. Actions taken by making policies related to technology development, increasing human resources, increasing capital, as well as actions that spur the growth of GRDP in Riau Province at the national level.

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