

Location Quotient Analysis in Identifying Leading Sector in East Lombok Regency 2015-2020

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Abstract

Economic growth is one of the important elements in economic development. The various regional potentials will shape the structure of the economy, so it is very necessary to maximize this potential. Economic sectors that are prioritized in forming GRDP are classified in the leading sector/base sector. This study aims to identify the leading sectors in East Lombok Regency which are used as information and considerations for economic development planning. This type of research is descriptive with a quantitative approach. This study uses secondary data in the form of Gross Regional Domestic Product (GRDP) data from 2015 – 2020 (time series) for East Lombok Regency and West Nusa Tenggara Province. The analytical tool used in this research is Location Quotient Analysis. The results of the Location Quotient Analysis (LQ) show that 9 sectors are identified based on business fields which are the leading sectors, including 1) Processing/Manufacturing Industri; 2) Agriculture, Forestry and Fisheries; 3) Wholesale and Retail Trade, repair of cars and motorcycles; 4) Construction; 5) Government Administration, Defense and Mandatory Social Security; 6) Real Estate; 7) Education Services; 8) Health services and social activities; 9) Procurement of electricity and gas.

Keywords: Location Quotient Analysis, Leading sector, GRDP

INTRODUCTION

High regional economic growth is one of the priorities in development plans in each region. The success of development illustrates the existence of the region in managing potential resources. Regional economic growth targets vary widely according to the potential in the area (Irawan & Suparmoko, 2012). the increase in economic growth will result in additional people's income in a certain period (Yulianita, n.d.). Strengthening economic sectors is carried out by developing, increasing and optimally utilizing existing resources in the economic development planning process, which cannot be separated from development policies (Kirwani, 2011). Regional economic development requires development policies based on regional uniqueness (endogenous development). So that special attention and handling is needed in order to increase the maximization of the potentials that exist in the region (Arsyad, 2005).

The *economic base theory* developed by Richardson is based on the view that the rate of economic growth of a region is determined by the magnitude of the increase in exports from that region (Richardson, 2001). Economic activities are grouped into basic and non-basic activities. Basic activities are the main drivers of economic growth in a region. Any changes that occur in the basic sector will have a *multiplier effect* in the regional economy. The increase in basic activities in a region will increase the flow of income into the region concerned, so that in the end it will improve the performance of the non-base sector. *Location Quotient (LQ) Analysis* is a comparison of the magnitude of the role of a sector/industry in a region against the magnitude of the role of that sector/industry nationally (Robinson, 2007).

Economic progress in East Lombok Regency can be seen from the contribution of Gross Regional Domestic Product (GRDP) at constant prices 2010. Aggregate economic growth can be calculated through Gross Regional Domestic Product (GRDP) which is a weighted average of its sectoral growth rate, The sector has a large contribution and its growth is very slow, so this can hamper the rate of economic growth in the aggregate. Conversely, if a sector has a relatively large contribution to the totality of the economy, then the sector has a high growth rate and at the same time will be able to further increase economic growth (NTB, 2021). The GRDP development of East Lombok Regency can be seen in table 1 as follows:

Table 1: GRDP at 2010 Constant Prices by Regency/City in West Nusa Tenggara Province (billion rupiah), 2016-2020

Kabupaten/Kota	2016	2017	2018	2019	2020
(1)	(2)	(3)	(4)	(5)	(6)
West Lombok	9792,22	10432,31	10491,75	10894,72	10123,60
Central Lombok	10854,98	11553,46	11916,53	12400,27	11571,99
East Lombok	12540,50	13323,96	13777,05	14424,04	13977,55
Sumbawa	8971,95	9587,03	9985,59	10470,63	10037,75
Dompu	4346,82	4640,18	4843,38	5059,07	4896,83
Bima	7143,34	7590,91	7897,79	8233,87	7946,59
West Sumbawa	24534,90	19773,72	12937,53	12786,02	16465,36
North Lombok	3121,62	3313,32	3284,66	3477,84	3218,91
Mataram City	11533,90	12464,41	13082,00	13811,53	13051,59
Bima City	2579,58	2751,19	2880,59	3028,86	1878,81

Source: Badan Pusat Statistik Prov. NTB, 2021

Economic growth is a macro indicator that is often used as a reference to evaluate the performance of regional economic development (Sukirno, 2012). Based on table 1. GRDP of East Lombok Regency from 2016 to 2019 has increased. However, in 2020 there was a decline in GRDP in all regencies/cities in NTB Province, which of course

was the impact of the covid 19 pandemic. The economic growth rate of East Lombok Regency in 2020 reached -7.08 percent. However, the fluctuations in economic growth did not break the spirit of economic development in East Lombok Regency.

There are 17 economic sectors that make up the GRDP in East Lombok Regency. All of these sectors have an important contribution to encourage economic growth. The agricultural, forestry and fisheries sectors each year provide the largest contribution. In 2020, the contribution of this sector based on current prices was 20,026.11 billion rupiah, a decrease from 2019. It is undeniable that there were fluctuations in several economic sectors in East Lombok Regency caused by the outbreak of the COVID-19 pandemic. Meanwhile, in 2020 the information and communication sector increased sharply by 13.12 percent.

Various efforts have been carried out in economic development in East Lombok Regency, both in terms of infrastructure development, increasing new industrial centers with various complete facilities, as a place to integrate various types of developing industries such as pottery, woven crafts, weaving crafts and others. Furthermore, the capacity of tourist destinations is increased, both for the development of tourist villages and coastal tourism objects. These programs aim to improve the welfare of the community. In its development, the efforts of the Regional Government of East Lombok Regency still require improvements to further increase the progress of the economic sectors as supporting the economy of East Lombok Regency. So it is necessary to identify the leading sectors in East Lombok Regency.

METHOD

This type of research is a descriptive method (Nazir, 2009) with a qualitative approach (Sugiyono, 2010). This study identifies the leading sectors in East Lombok Regency. The type of data is secondary data in the form of GRDP data for 17 sectors of East Lombok Regency and West Nusa Tenggara Province with purposive sampling technique (Sugiyono, 2010). Sources of data from the Central Statistics Agency (BPS) of NTB Province, journals, research and books related to this research. Data collection techniques with the documentation method are carried out by collecting secondary data from various sources (Sanusi, 2012). The analytical tool used is *Location Quotient (LQ) Analysis*. The formula for determining the LQ analysis is as follows (Robinson, 2007):

$$LQ = \frac{\frac{x_i}{PDORB}}{\frac{X_i}{PNB}}$$

Description :

- xi = added value of sector i in an area
- GRDP = Gross Regional Domestic Product of the area
- Xi = Value added of sector i nationally
- GNI = Gross National Product The

interpretation of the results of the LQ analysis is as follows:

- ✓ If $LQ > 1$, it indicates that the sector i / commodity is a potential / superior sector in the district, meaning that the sector has an export role in the region.
- ✓ If $LQ = 1$, it means that the role of the sector is equivalent to the role of the sector nationally.

- ✓ If the value of LQ <1, indicating that the sector i / commodities are not a potential sector in the district, meaning that the sector does not have a role in the export sector it will bring imported from other regions.

RESULTS AND DISCUSSION

Calculation of Location Quotient (LQ) Analysis is one of the analytical tools to determine the relative potential of the economy in a region. So, it can be said that the analysis LQ is used to identify the sectoral advantages of an area with other regions, which will then be known which sectors are basic or non-basic sectors. The base sector is a sector that has great potential in determining the overall development in the region, while the non-base sector is a supporting sector in the overall development (Hutapea et al., 2020). analysis *Location Quotient (LQ)* in its application is to identify the base sector found in a region, i.e. if the result value of the LQ calculation > 1. This base sector shows the *competitive advantages* of a region (Robinson, 2007). The goods and services produced by the basic sectors have a high level of economic advantage and are very influential on economic growth in East Lombok Regency. Therefore, these sectors have great potential to be developed. Based on the calculation results of the analysis Location Quotient (LQ) in East Lombok Regency, it is presented in table 2 as follows:

Table 2: Results for Location Quotient (LQ) Analysis East Lombok Regency, 2015-2020

No	Lapangan Usaha	Tahun						Rata-rata	Ket
		2015	2016	2017	2018	2019	2020		
1	Agriculture, Forestry and Fishing Industry	1.37	1.36	1.28	1.18	1.17	1.20	1.26	Basis
2	Mining and Quarrying	0.24	0.25	0.31	0.46	0.51	0.41	0.36	Nonb asis
3	Manufacturing Industry	2.10	2.04	1.88	1.72	1.69	1.71	1.86	Basis
4	Electricity and Gas Industry	1.16	1.15	1.08	1.00	0.97	1.01	1.06	Basis
5	Water Supply, Sewerage, Waste Management and Remediation Activities	1.02	1.03	0.96	0.83	0.83	0.86	0.92	Nonb asis
6	Constructiin	1.34	1.35	1.27	1.16	1.11	1.13	1.23	Basis
7	Wholesale and Retail Trade; Repai of Motor Vehicles and Motorcycles	1.33	1.33	1.25	1.16	1.15	1.20	1.24	Basis
8	Transportation and Storage	0.70	0.69	0.64	0.59	0.62	0.73	0.66	Nonb asis
9	Accommodation and Food Service Activities	0.55	0.54	0.50	0.52	0.54	0.74	0.56	Nonb asis
10	Information and Communication	0.99	0.99	0.93	0.86	0.86	0.88	0.92	Nonb asis
11	Financial and Insurance Activities	0.82	0.83	0.79	0.72	0.72	0.71	0.77	Nonb asis
12	Real Estate	1.24	1.25	1.18	1.09	1.08	1.12	1.16	Basis
13	Bussiness Activities	0.71	0.71	0.67	0.62	0.61	0.63	0.66	Nonb asis

14	Pubic Administration and Defence	1.33	1.32	1.24	1.14	1.13	1.15	1.22	Basis
15	Education Industry	1.25	1.24	1.16	1.08	1.06	1.10	1.15	Basis
16	Human Health and Social Work Activities	1.23	1.23	1.15	1.07	1.06	1.11	1.14	Basis
17	Other Services Activities	1.07	1.07	1.00	0.93	0.92	0.95	0.99	Nonbasis

Source; Processed data, 2021

Based on the data in table 2, it is known that the LQ value in the base sector is based on the highest order in East Lombok Regency on average from 2015 - 2020, as follows:

1. Manufacturing Industry

The LQ value of the Manufacturing Industry Sector has always been positive from 2015 - 2020 with an average of 1.86 for the last 5 years, although it has fluctuated from 2015-2020, the manufacturing industry has great potential to be developed. The industries that are developing, especially in East Lombok Regency, are large and medium industries, which in 2019 were large and medium scale industries by 66 percent overall in NTB and micro and small businesses by 17.8 percent. In East Lombok, the manufacturing sector has not contributed significantly. However, overall in NTB, the percentage value of the manufacturing sector in East Lombok Regency is able to make a large contribution to NTB. Based on data from the NTB Industry Office in 2017, several branches of Small and Medium Industries (IKM) in East Lombok Regency are growing, namely the food industry, clothing industry, chemical and building materials, metals and electronics and handicrafts with an average growth rate of 3.4 percent from 2014 to 2017 (*Rekapitulasi Industri Kecil Menengah (IKM) Kabupaten Lombok Timur Tahun 2014-2017*, n.d.). Overall, the growth rate of the manufacturing sector in 2016 was 5.32 percent, while the business sector that recorded the largest growth rate was the food and beverage industry, which was 9.98 percent, followed by the wood, wood and cork industry. woven goods from bamboo, rattan and the like and the furniture industry, namely 6.90 percent and 6.15 percent (BAGASKARA et al., 2021)

Economic activity in an area will greatly affect the geographical level, so location theory suggests that the grouping of an industry will appear mainly due to the minimization of transportation costs or production costs (Kuncoro, 2002). The development of the processing industry in East Lombok Regency is supported by natural resources in the agricultural sector, both vegetable and animal, with the development of local products, the number and types of food products are increasing (Suprianto et al., 2021). The role of this sector in the GRDP of East Lombok Regency is on average 7 percent. Growth in the processing industry is getting weaker in 2020 as a result of several industries that had stopped operating at the beginning of the COVID-19 pandemic and reduced production operations (Atmayanti & Andiana, 2021). Even the growth of the Processing Industry was only -3.49 percent in 2020, a significant decrease from 2.71 percent in 2019.

2. Agriculture, Forestry and Fishing Industry

The percentage of rice production in the agriculture, forestry and fisheries sectors of East Lombok Regency contributes 18.03 percent in NTB. Based on the calculation results, the value *LQ* in the agriculture, forestry and fishery sectors is 1.26 which

indicates that the agricultural sector is one of the basic sectors that has great potential if it is developed to the maximum. In 2020 the contribution of the agricultural sector is 20,026.11 billion rupiah based on current price GRDP (ADHB). This figure shows a decrease of around 287.5 billion rupiah from 2019 which was worth 20,313.61 billion rupiah. In 2020, around 27.89 percent of East Lombok's GRDP comes from the Agriculture, Forestry and Fisheries sectors. This percentage increased from 2019 which was around 27.04 percent. This shows that in the Covid-19 pandemic situation, the tendency of the population of East Lombok to switch to the agricultural sector has increased. The growth rate in 2020 based on constant prices is -0.39 percent. The shift in the rainy season which resulted in decreased agricultural production due to crop failure and decreased productivity.

3. Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles

The LQ value in the wholesale and retail trade sector shows the number 1.24. This positive value indicates that the wholesale and retail trade sector is the leading sector for East Lombok Regency. In its development, the wholesale and retail trade of car and motorcycle repairs over the last 5 years, contributed more than 15 percent. In 2020, the contribution of this sector will reach 3.45 trillion rupiah or around 17.23 percent. The growth rate of 7.23 percent in 2016, contracted to -3.65 percent in 2020 due to the covid 19 pandemic.

4. Construction

The value *LQ* in the construction sector shows a positive result of 1.23 which means that the construction sector is the base sector in East Lombok district. In real terms the development of the construction sector In 2020, the contribution of the construction sector reached 2.09 trillion rupiah or 10.48 percent of the total economy of East Lombok Regency and was ranked third. This figure decreased compared to 2016 with a contribution of 11.32 percent. The imposition of social restrictions during the pandemic caused a deep contraction. The construction growth rate from 2016 -2019 in East Lombok Regency is relatively stable, which is around 7 percent annually, with the exception of 2018 which slowed down at 1.81 percent. However, due to the impact of the COVID-19 pandemic throughout 2020, construction became the sector with the second worst impact, namely with an economic decline of -14.83 percent.

5. Public Administration, Defence and Mandotary Social Security

The value of *LQ* the government administration, defense and social security sectors must show a positive value of 1.22 which indicates that the sector is the leading sector in East Lombok Regency. This sector includes activities of a governmental nature, which are generally carried out by government administration as well as legislation and the translation of laws relating to the courts and according to their regulations. The growth rate has always been positive even though it slowed from 3.13 percent in 2019 to 2.94 percent in 2020.

6. Real Estate

The LQ value of the Real Estate sector is 1.16 which indicates this sector is one of the leading sectors in East Lombok Regency. The pace of economic growth in this sector is volatile and tends to slow down. In 2020, the economic growth of this sector

was only 1.59 percent, lower than the previous year which reached 4.58 percent. This is due to the COVID-19 pandemic which has hampered development.

7. Education Industry

The value of *LQ* the education services sector is 1.15 which shows always positive developments, so that this sector is sectored as a leading sector in East Lombok Regency. In 2020 education services contributed 5.69 percent to the total economy of East Lombok. The growth trend of this sector fluctuates but tends to decrease slightly, from 4.96 percent to 1.73 percent in the 2016-2020 period.

8. Human Health and Social Work Activities

The value *LQ* in the Health Services sector shows a positive number of 1.14 which indicates that this sector is the base sector in East Lombok Regency. This sector includes the activities of providing health services and social activities which are quite broad in scope. In 2020, its contribution to the economy of East Lombok Regency is 2.23 percent and the growth rate is 0.28 percent.

9. Electry and Gas Industry

The value of *LQ* the electricity and gas procurement sector shows a positive value of 1.06 which means that this sector is the leading sector in East Lombok Regency. The electricity and gas procurement sector contributed 17.9 billion rupiah or around 0.09 percent to the economy of East Lombok in 2020, an increase compared to 2016. The growth of this sector in 2020 increased to 9.89 percent.

CONCLUSION

Based on the Location Quotient (*LQ*) analysis, it is known that the base sector is based on the highest order in East Lombok Regency on average from 2015 - 2020, namely 1) Processing Industry; 2) Agriculture, Forestry and Fisheries; 3) Wholesale and Retail Trade; Car and Motorcycle Repair; 4) Construction; 5) Government Administration, Defense and Mandatory Social Security; 6) Real Estate; 7) Education Services; 8) Health Services and Social Activities; 9) Electricity and Gas Procurement.

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Identification of leading sectors is expected to help the government, especially the government of East Lombok Regency in maximizing its comparative advantage. Therefore, it will have an impact on increasing economic growth and people's welfare.

REFERENCES

- Arsyad, L. (2005). *Pengantar Perencanaan Ekonomi Pembangunan Daerah*. Media Widya Mandala.
- Atmayanti, T., & Andiana, B. D. L. (2021). Strategi Pengembangan Home Industry Era New Normal Pandemi Covid 19 Dalam Meningkatkan Pendapatan (Studi Kasus Kelompok Usaha Bersama (KUBE) "Arjanjang" Desa Selebung Ketangga, Kabupaten Lombok Timur). *JPEK (Jurnal Pendidikan Ekonomi Dan Kewirausahaan)*, 5(1), 76–89.
- BAGASKARA, C., KARISMAWAN, P., & FIRMANSYAH, F. (2021). Pola Konsentrasi Spasial

- Industri Kecil Menengah Di Provinsi Nusa Tenggara Barat. *Ganec Swara*, 15(1), 858.
<https://doi.org/10.35327/gara.v15i1.184>
- Hutapea, A., Koleangan, R. A. M., Rorong, I. P. F., Pembangunan, J. E., Ekonomi, F., & Ratulangi, U. S. (2020). Analisis Sektor Basis Dan Non Basis Serta Daya Saing Ekonomi Dalam Peningkatan Pertumbuhan Ekonomi Kota Medan. *Jurnal Berkala Ilmiah Efisiensi*, 20(03), 1–11.
- Irawan, & Suparmoko. (2012). *Ekonomika Pembangunan*. BPFE, Yogyakarta.
- Kirwani, A. H. R. H. dan. (2011). Identifikasi dan Model Pengembangan Sektor Unggulan di Kabupaten Sidoarjo. *Ekonomi*, 1–16.
- Kuncoro, M. (2002). *Analisis Spasial dan Regional: Studi Aglomerasi dan Kluster Industri Indonesia*. UPP AMP YKPN.
- Nazir, M. (2009). *Metode Penelitian*. Graha Indonesia.
- Rekapitulasi Industri Kecil Menengah (IKM) Kabupaten Lombok Timur Tahun 2014-2017*. (n.d.).
- Richardson, H. (2001). *Dasar-Dasar Ilmu Ekonomi Regional*. FEUI.
- Robinson, T. (2007). *Ekonomi Regional, Teori dan Aplikasi*. PT. Bumi Aksara.
- Sanusi, A. (2012). *Metodelogi Penelitian Bisnis*. Salemba Empat.
- Sugiyono. (2010). *Metode penelitian Bisnis (pendekatan Kuantitatif, Kualitatif dan R& D)*. Alfabeta.
- Sukirno, S. (2012). *Pengantar Ekonomi Makro*. Raja Grafindo Persada.
- Suprianto, S., Eka Agustiani, & Soenaryo Neneng. (2021). Dampak Covid – 19 Terhadap Kegiatan Industri Rumah Tangga Umkm Di Kecamatan Selong Kabupaten Lombok Timur. *Elastisitas - Jurnal Ekonomi Pembangunan*, 3(1), 78–97.
<https://doi.org/10.29303/e-jep.v3i1.38>
- Yulianita, A. (n.d.). *Ekonomi pembangunan*. 70–85.