

North Kalimantan Base Sector Analysis Gross Regional Domestic Product Approach

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Abstract. The purpose of this study is to find out which sectors are the leading sectors in North Kalimantan Province in 2017 - 2021, What economic sectors have fast growth rates in shifting economic sectors in North Kalimantan Province in 2017 - 2021, Which economic sectors have the power strong competitiveness in shifting economic sectors in North Kalimantan Province in 2017 - 2021. What economic sectors are included in the criteria as prime, potential, developing and underdeveloped sectors in North Kalimantan Province in 2017 - 2021. Quantitative analysis methods used in processing this data is Location quotient (LQ), Shift Share, Growth Ratio Model (MRP) and Overlay Analysis processed using Microsoft Office Excel. The results of the study show that the economic sectors which are categorized as basic sectors in North Kalimantan Province in 2017 - 2021 are the Agriculture, Forestry and Fisheries sectors; Mining and excavation; Construction; Transportation and Warehousing; Administration of Government, Defense and mandatory social security; Education Services.

Keywords: Base Sector, Economic Sectors, PDRB.

1. INTRODUCTION

Economic development is one indication of the development of a region in achieving the desired progress and level of welfare, but in reality, economic development both in the context of the State and regions is often uneven so that it can cause development inequality between districts / cities, between regions, and between economic sectors.

One of the economic indicators to measure the performance of economic growth in a region is Gross Domestic Product (GRDP), which can be seen from the expenditure side GRDP is the total amount of expenditure for household consumption and private institutions that do not seek profit, government consumption, gross domestic fixed capital formation, changes in stock and net exploration in a region, seen from the production side GRDP is the value of final goods and services produced by various production units (in a region) in a certain period of time (one year), GRDP is an important indicator in a region that can indicate the totality of net production of goods / services which can then be used as a basis for planning and evaluating the development of developing regions (BPS, 2014).

North Kalimantan Province is a province in Indonesia located in the northern part of the island of Kalimantan, this province directly borders neighboring Malaysia, namely the states of Sabah and Sarawak. The center of government of North Kalimantan is currently in Tanjung Selor District, together with the center of government of Bulungan Regency. Currently, North Kalimantan is the youngest province in Indonesia which was officially ratified as a province in a plenary meeting of the DPR on October 25, 2012 based on Law Number 20 of 2012, the

Ministry of Home Affairs established a new autonomous region consisting of one province and 10 regencies, including Kaltara on April 22, 2013. The contribution of regencies/cities to the formation of GRDP with oil and gas in North Kalimantan in 2021, the most dominant (largest) is occupied by Tarakan City, which is 38.19 percent. The large role comes from the contribution of the net export component. Then Nunukan Regency is ranked second with a role of 26.29 percent which is also dominated by the net export component, and then Bulungan Regency is ranked third with a role of 18.33 percent, its largest contribution comes from the gross fixed capital formation component (PMTB), when compared to 2017, although there was no shift in position from the three regions largest contributor to the total GRDP of North Kalimantan, but in terms of contribution, Bulungan Regency in particular has decreased. In 2017, Bulungan Regency had a fairly large contribution of 19.94 percent, while in 2021 it only contributed 18.33 percent.

By looking at all the conditions and phenomena above, the question arises as to what sectors are superior and have the potential to be developed as drivers of the economy of North Kalimantan Province, as well as what sectors are non-basic sectors as supporting basic sectors, and what causes the shift in the economic structure in North Kalimantan Province (are there external factors in the form of changes in the economy at the national level or is it because of the regional competitiveness of North Kalimantan Province).

2. METHOD

Research Design

This design uses descriptive research. Descriptive research is research conducted to meet the value of independent variables, either one or more variables (Independent) without making comparisons, or connecting with other variables (Sugiyono, 2003: 11). In this study, the mix and share approach (quantitative and qualitative) was used using data in the form of numbers. Data analysis with statistical producers through the Location Quotient (LQ), Shift Share, Klassen Typology, Growth Ratio Model (MRP), and Overlay approaches.

Analysis Method

In accordance with the problems and objectives that have been formulated, the analysis method in this study is a quantitative descriptive analysis method that aims to explain, summarize various conditions, various situations, or several economic indicators of North Kalimantan Province based on quantitative calculations, then provide an overview of these conditions. The quantitative analysis methods used in processing this data are Location Quotient (LQ), Shift Share, Growth Ratio Model (MRP) and overlay analysis processed using Microsoft Office Excel.

3. RESULTS AND DISCUSSION

Location Quotient (LQ) Analysis of North Kalimantan Province

No	C 14		Rerata				
	Sektor	2017	2018	2019	2020	2021	LQ
1	Pertanian,Kehutanan, dan Perikanan	1.3087	1.3290	1.3517	1.3938	1.4066	1.3580
2	Pertambangan dan penggalian	3.4618	3.5079	3.6438	3.4632	3.5525	3.5258
3	Industri pengolahaan	0.4410	0.4280	0.4322	0.4281	0.4244	0.4307
4	Pengadaan listrik dan gas	0.0584	0.0615	0.0623	0.0712	0.0712	0.0649
5	Pengadaan air, pengelolaan sampah, limbah dan daur ulang	0.8099	0.8187	0.7881	0.7942	0.7716	0.7965
6	Konstruksi	1.1623	1.1738	1.2433	1.2884	1.2456	1.2227
7	Perdagangan besar dan eceran,reparasi mobil dan sepeda motor	0.7643	0.7887	0.8213	0.8572	0.8779	0.8219
8	Transportasi dan pergudangan	1.4722	1.4874	1.4958	1.6991	1.6463	1.5602
9	Penyediaan Akomodasi dan makan minum	0.4376	0.4612	0.4704	0.5009	0.4960	0.4732
10	Informasi dan komunikasi	0.5374	0.5449	0.5389	0.5193	0.5245	0.5330
11	Jasa keuangan dan asuransi	0.2665	2.7648	0.2733	0.2660	0.2807	0.7703
12	Real Estate	0.3091	3.1579	0.3148	0.3100	0.3081	0.8800
13	Jasa Perusahaan	0.1408	0.1338	0.1242	0.1303	0.1321	0.1323
14	Administrasi Pemerintahan, Pertahanan dan jaminan sosial wajib	1.4883	1.4683	14.9664	1.5130	1.5218	4.1916
15	Jasa pendidikan	0.7489	0.7463	7.7002	0.7969	0.8327	2.1650
16	Jasa kesehatan dan kegiatan sosial	0.9572	0.9352	0.9386	0.9259	0.9100	0.9334
17	Jasa lainnya	0.3263	0.3175	0.3115	0.3572	0.3731	0.3371

 Table 1. North Kalimantan Province LQ Index 2017-2021

Sumber : BPS Provinsi Kalimantan Utara 2023, diolah dari hasil perhitungan

Table 1 shows that the economic sectors that are the basic sectors in the period 2017 to 2021 are the Agriculture, Forestry, and Fisheries sectors; Mining and quarrying; Construction; Transportation and Warehousing; Government Administration, Defense and Mandatory Social Security; Educational Services, this means that these sectors are dominant in North Kalimantan Province and have the advantage to be used as export commodities. If further investigated based on the analysis of the basic sectors, of the 17 economic sectors in North Kalimantan in the period 2017 to 2021, only the Agriculture, Forestry, and Fisheries sectors; Mining and

quarrying; Construction; Transportation and Warehousing; Government Administration, Defense and Mandatory Social Security; Educational Services are tradable sectors (can be traded between regions) with an LQ index value> 1 while other sectors are relatively not the basis of regional economic development.

Shift Share Analysis of North Kalimantan Province

Table 2. Shift Share Analysis of North Kalimantan Province to Indonesia 2017 – 2021 (Million Rp)

N 7 -	Sektor	Kalimantan Utara		Indonesia		a			GUNG	24.6
No		2017	2021	2017	2021	G	M	s	G+M+S	M+S
1	Pertanian, Kehutanan dan perikanan	9422828	11301508	1258376	1404191	1125258	130390	786803	2042450.645	917193
2	Pertambangan dan Penggalian	15443864	16710770	779678	822100	1844279	100344	426629	2371252.796	526974
3	Industri Pengolahan	5308102	5548865	2103466	2284822	633884	54651.9	-216888	471647.8682	-162236
4	Pengadaan Listrik dan Gas	33912	46810	101551	114861	4049.71	530.775	8453.33	13033.81716	8984.11
5	Pengadaan air, pengolahan sampah, limbah dan daur ulang	37005	43793	7985	9919	4419.07	1070.28	-2174.4	3314.922591	-1104.1
6	Konstruksi	6570561	7858102	987925	1102518	784645	91013.7	525399	1401057.642	616413
7	Perdagangan Besar dan Eceran, Resparasi Mobil dan Sepeda Motor	5736806	7282825	1311747	1449831	685079	72116.9	942117	1699313.3	1014234
8	Transportasi dan Pergudangan	3425858	3826135	406679	406169	409110	-513.15	404574	813170.8957	404061
9	Penyediaan Akomodasi dan Makan Minum	746481	881956	298130	310749	89143.5	3773.16	103879	196795.4088	107652
10	Informasi dan Komunikasi	1547971	2090217	503421	696506	184856	70900.9	-51473	204283.587	19427.6
11	Jasa Keuangan dan Asuransi	608296	746246	398971	464638	72641.6	11956	37831.2	122428.8353	49787.2
12	Real Estate	512189	587528	289569	333283	61164.7	9233.67	-1983.1	68415.3145	7250.6
13	Jasa Perusahaan	139201	149036	172764	197107	16623.1	2342.25	-9778.8	9186.578641	-7436.6
14	Administrasi Pemerintahan, Pertahanan dan jaminan sosial wajib	2780612	3171734	326514	364251	332056	38377.6	69751	440184.3711	108129
15	Jasa pendidikan	1306139	1670882	304811	350663	155977	23463.1	168264	347704.295	191727
16	Jasa Kesehatan dan Kegiatan Sosial	599693	817896	109498	157085	71614.3	31123.7	-42425	60313.3828	-11301
17	Jasa Lainnya	317772	428661	170175	200773	37947.8	6823.23	53751.8	98522.78481	60575
	Jumlah	54537290	63162964	9531259	10669465	6512748	647598	3202730	10363076.44	3850329

Sumber : diolah dari hasil perhitungan

In Table 2, the shift share column (G+M+S) shows that out of 17 (seventeen) economic sectors, they have positive values. This means that 17 (seventeen) sectors, namely agriculture, forestry and fisheries; processing industry; electricity and gas supply; water supply, waste management, waste and recycling; construction; wholesale and retail trade, car and motorcycle repair; transportation and warehousing; provision of accommodation and food and beverage; information and communication; financial services and insurance; real estate; corporate services; government administration, defense and compulsory social security; education services; health services and social activities; and other services that have positive shift share values, these sectors can be said to be advanced sectors compared to the same sectors at the national level.

Growth Ratio Model Analysis (MRP) of North Kalimantan Province

This MRP analysis is used to see the growth of each existing economic sector, so that it can be seen which sectors have prominent growth that has the potential to be developed.

No	Sektor	MRP				
NO	Sektor	RPR	Nominal	RPS	Nominal	
1	Pertanian, Kehutanan dan perikanan	0.970	+	1.670	+	
2	Pertambangan dan Penggalian	0.456	+	0.687	+	
3	Industri Pengolahan	0.722	+	0.380	-	
4	Pengadaan Listrik dan Gas	1.098	+	3.185	+	
5	Pengadaan air, pengolahan sampah, limbah dan daur ulang	2.028	+	1.536	-	
6	Konstruksi	0.971	+	1.641	+	
7	Perdagangan Besar dan Eceran, Resparasi Mobil dan Sepeda Motor	0.882	+	2.257	+	
8	Transportasi dan Pergudangan	-0.011	-	0.978	+	
9	Penyediaan Akomodasi dan Makan Minum	0.354	+	1.520	+	
10	Informasi dan Komunikasi	3.212	+	2.933	-	
11	Jasa Keuangan dan Asuransi	1.378	+	1.899	+	
12	Real Estate	1.264	+	1.232	-	
13	Jasa Perusahaan	1.180	+	0.592	-	
14	Administrasi Pemerintahan, Pertahanan dan jaminan sosial wajib	0.968	+	1.178	+	
15	Jasa pendidikan	1.260	+	2.338	+	
16	Jasa Kesehatan dan Kegiatan Sosial	3.639	+	3.047	-	
17	Jasa Lainnya	1.506	+	2.922	+	

 Table 3. Analysis of MRP of North Kalimantan Province 2017-2021

Sumber : data diolah hasil perhitungan

Overlay Analysis of North Kalimantan Province

Overlay analysis is a combination of the results of the Location Quotient (LQ) value, net shift (Ns) in the Shift Share analysis, and the Study Area Growth Ratio (RPS) in the Growth Ratio Model (MP) analysis. Sectors that all have positive (+) results in the various analysis tools used above can be said to be superior sectors.

The results of the overlay analysis of the economic sector in North Kalimantan Province in 2017-2021 can be seen in Table 4:

		Overlay							
No	Sektor	LO	LO Net PRS Notasi Koputusan						
	Pertanian.		Shift		Overlay				
1	Pertanian, Kehutanan dan perikanan	+	+	+	(+)(+)(+)	Basis, Pertumbuhan tinggi			
2	Pertambangan dan Penggalian	+	+	+	(+)(+)(+)	Basis, Pertumbuhan tinggi			
3	Industri Pengolahan	-	-	-	(-)(-)(-)	Non basis, Sektor lamban, Pertumbuhan rendah			
4	Pengadaan Listrik dan Gas	-	+	+	(-)(+)(+)	Progresif, Pertumbuhan tinggi			
5	Pengadaan air, pengolahan sampah, limbah dan daur ulang	-	-	-	(-)(-)(-)	Non basis, Sektor lamban, Pertumbuhan rendah			
6	Konstruksi	+	+	+	(+)(+)(+)	Basis, Pertumbuhan tinggi			
7	Perdagangan Besar dan Eceran, Resparasi Mobil dan Sepeda Motor	-	+	+	(-)(+)(+)	Progresif, Pertumbuhan tinggi			
8	Transportasi dan Pergudangan	+	+	+	(+)(+)(+)	Basis, Pertumbuhan tinggi			
9	Penyediaan Akomodasi dan Makan Minum	-	+	+	(-)(+)(+)	Progresif, Pertumbuhan tinggi			
10	Informasi dan Komunikasi	-	+	-	(-)(+)(-)	Progresif			
11	Jasa Keuangan dan Asuransi	-	+	+	(-)(+)(+)	Progresif, Pertumbuhan tinggi			
12	Real Estate	-	+	-	(-)(+)(-)	Progresif			
13	Jasa Perusahaan	-	-	-	(-)(-)(-)	Non basis, Sektor lamban, Pertumbuhan rendah			
14	Administrasi Pemerintahan, Pertahanan dan jaminan sosial wajib	+	+	+	(+)(+)(+)	Basis, Pertumbuhan tinggi			
15	Jasa pendidikan	+	+	+	(+)(+)(+)	Basis, Pertumbuhan tinggi			
16	Jasa Kesehatan dan Kegiatan Sosial	-	-	-	(-)(-)(-)	Non basis, Sektor lamban, Pertumbuhan rendah			
17	Jasa Lainnya	-	+	+	(-)(+)(+)	Progresif, Pertumbuhan tinggi			
				-					

Table 4. Overlay Analysis of North Kalimantan Province

Sumber : data diolah hasil perhitungan

Klassen Typology Analysis of North Kalimantan Province

This analysis is based on grouping by dividing a sector by looking at the growth and contribution of a particular sector to the total Gross Regional Domestic Product (GRDP) of a region or Gross Domestic Product (GDP) of a country. By using the Klassen Typology analysis, a sector can be grouped into 4 (four) quadrants, namely: (1) prime sector quadrant; (2) potential sector quadrant; (3) developing sector quadrant; and (4) underdeveloped sector quadrant.

Based on the average growth and sectoral contribution figures of the GRDP of North Kalimantan Province and Indonesia's GDP, economic sector grouping is carried out based on the Klassen Typology criteria. The results of the mapping based on the Klassen Typology analysis can be seen in Table 5:

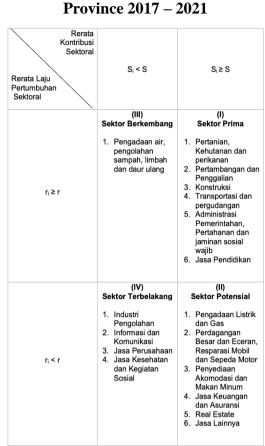


 Table 5. Typology of Economic Sector Classification of North Kalimantan

Sumber : diolah dari hasil perhitungan

The results of the grouping using the Klassen Typology method in Table 5 show that the Agriculture, Forestry and Fisheries; Mining and Quarrying; Construction; Transportation and Warehousing; Government Administration, Defense and Compulsory Social Security; Education Services sectors in North Kalimantan Province are classified as prime sectors.

Potential sectors include the Electricity and Gas Procurement sector; Wholesale and Retail Trade, Car and Motorcycle Repair; Accommodation and Food and Beverage Provision; Financial Services and Insurance; Real Estate; Other Services. Developing sectors include the Water Procurement, Waste Management, Waste and Recycling sectors. Meanwhile, the Manufacturing Industry; Information and Communication; Corporate Services; Health Services and Social Activities sectors are classified as underdeveloped sectors.

4. CONCLUSION

Based on the results of the analysis and discussion that have been carried out, the following conclusions can be drawn: The economic sectors categorized as base sectors in North Kalimantan Province in 2017 - 2021 are the Agriculture, Forestry and Fisheries; Mining and Quarrying; Construction; Transportation and Warehousing; Government Administration, Defense and Compulsory Social Security; Education Services; Sectors that have a rapid growth rate in the economic shift in North Kalimantan Province in 2017 - 2021 are the Agriculture, Forestry and Fisheries sector; Mining and Quarrying; Manufacturing Industry; Electricity and Gas Supply; Water supply, waste processing, waste and recycling; Construction; Wholesale and Retail Trade, Car and Motorcycle Repair; Provision of Accommodation and Food and Beverage; Information and Communication; Financial Services and Insurance; Real Estate; Corporate Services; Government Administration, Defense and Compulsory Social Security; Education Services; Health Services and Social Activities; Other Services; Sectors that have strong competitiveness in North Kalimantan Province in 2017 - 2021 are the Agriculture, Forestry and Fisheries sector; Mining and Quarrying; Electricity and Gas Supply; Construction; Wholesale and Retail Trade, Car and Motorcycle Repair; Transportation and Warehousing; Provision of Accommodation and Food and Beverage; Financial and Insurance Services; Government Administration, Defense and Compulsory Social Security; Educational Services; Other Services; The Agriculture, Forestry and Fisheries Sector; Mining and Quarrying; Construction; Transportation and Warehousing; Government Administration, Defense and Compulsory Social Security; Educational Services in North Kalimantan Province are classified as prime sectors. Potential sectors include the Electricity and Gas Procurement sector; Wholesale and Retail Trade, Car and Motorcycle Repair; Accommodation and Food and Beverage Provision; Financial and Insurance Services; Real Estate; Other Services. Developing sectors include the Water Procurement sector, waste management, waste and recycling. Meanwhile, the Manufacturing Industry sector; Information and Communication; Corporate Services; Health Services and Social Activities are classified as underdeveloped sectors.

BIBLIOGRAPHY

Adisasmita, R. (2008). Pengembangan wilayah: Konsep dan teori. Graha Ilmu.

- Aji, D. A. (2017). Analisis sektor ekonomi unggulan Provinsi Kalimantan Timur (Tesis, Universitas Mulawarman).
- Badan Pusat Statistik. (2020). *Kalimantan Utara dalam angka 2020*. Badan Pusat Statistik Kalimantan Utara.
- Djojohadikusumo, S. (1994). Dasar teori ekonomi pertumbuhan dan ekonomi pembangunan. LP3E S.
- Glasson, J. (1977). *Pengantar perencanaan regional* (P. Sitohang, Trans.). Lembaga Penerbit Fakultas Ekonomi UI.
- Mahrita. (2016). Analisis sektor ekonomi Provinsi Kalimantan Timur (Tesis, Universitas Mulawarman).
- Muana, N. (2005). Product Domestik Regional Bruto sebagai alat ukur dalam pertumbuhan ekonomi suatu daerah (Hal. 13). Penerbit Airlangga.
- Mustari, A. R. (2014). Analisis perekonomian wilayah Kota Samarinda (Tesis, Universitas Mulawarman).
- Pratama, R. (2019). *Perencanaan pembangunan ekonomi daerah di Jawa Timur: Pendekatan dan teori*. PT. Salemba Empat.
- Santosa, I. (2021). Pembangunan ekonomi berbasis sumber daya alam di Provinsi Kalimantan Tengah. Lembaga Penerbit Universitas Negeri Malang.
- Sirojuzilam. (2008). Disparitas ekonomi dan perencanaan regional: Ketimpangan ekonomi wilayah Barat dan wilayah Timur Provinsi Sumatera Utara. Pustaka Bangsa Press.
- Surya Darma. (2016). Analisis pergeseran struktur dan pertumbuhan ekonomi Kota Samarinda (Tesis, Universitas Mulawarman).
- Tarigan, R. (2012). Ekonomi regional: Teori dan aplikasi (Edisi Revisi). Bumi Aksara.
- Wicaksono, R. (2020). Teori dan kebijakan dalam perencanaan pembangunan ekonomi regional di Indonesia. Penerbit Mutiara.
- Widya, P. (2015). Analisis struktur ekonomi dan sektor unggulan di Kabupaten dan Kota Sukabumi 2007-2013.