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The Classification of Leading Sectors Utilized Weighting Technique Analysis

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Abstract

Related to the previous studies, there are still questions about what sectors are produced from several economic based approaches each year. This study aims to determine the "very potential" business fields to be developed. This research was led purposively in Sukamara Regency, Kalimantan Tengah Province thinking about that macroeconomic exhibition information actually should be additionally improved. Auxiliary information got by documentation at the Central Statistics Agency, specifically GRDP at 2010 Constant Market Prices for the 2015-2020 period. Arrangement of business fields is done utilizing a weighting come closer from the estimation of Location Quotient, Growth Ratio Model, Sectoral Contribution Percentage and Growth Rate, Shift Share Analysis, and Overlay. The consequences of the review show the pattern of the improvement of the quantity of driving areas that are getting less and less and not in any manner observe any area that is completely equipped for satisfying the normal financial based methodology presumptions consistently. Moreover, the weighting system carried out proposes a new contribution in determining the leading sectors with a clearer classification. Therefore, the results of this study at the same time provide recommendations for the need for an analysis of the leading sector every year as consideration for regional planning.

Key words : Leading Sector, Economic Based Approach, Sukamara Regency.

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INTRODUCTION

Advancement arranging is vital thinking about the issue of restricted creation sources possessed between districts. The presence of a law on local independence in Indonesia, further reinforces that neighborhood government is the lead of local monetary improvement arranging. Family courses of action in view of local area yearnings and provincial possibilities that cling to the standard of need are required with regards to dependable execution of independence (Saragih, 2015). Holding fast to the guideline of need, shows the requirement for logical investigations of neighborhood potential in understanding the success of a district.

The economic base hypothesis around the presumption that monetary development is made by depending on the export activities of an area (Guimarães et al., 2014). The business field that enjoys benefits will have more noteworthy potential for send out. The meaning of better alludes than the type of examination (relative) and not as genuine added esteem. The business field that enjoy near benefits are more beneficial to create than different sectors that are similarly delivered by the two players. Toward the finish of the conversation, monetary exercises are partitioned into essential and non-fundamental sector.

The base sector here refers to a business field with good export performance, has a comparative advantage, and is competitive which in turn is able to create growth for other sectors (Tarigan, 2012). Other words, the basic sector is also called the leading sector which is further agreed to result in a better overall rate of economic growth.

The investigation of deciding the main/base area is broadly accepted to be a requirement for examination in the time of territorial independence thinking about its

effect on by and large financial development. Alluding to the financial base hypothesis, the advancement of the neighborhood base/ potential area is an optimal open door to acknowledge request that does not rely upon inner powers and to make an impact for other work open doors (Saragih, 2015; Sjafrizal, 2014; Tarigan, 2012). Along these lines, the main area not entirely set in stone to be the foundation of between provincial exchange relations. The execution of driving areas will open exchange cooperation's, increment inflows of individuals' pay, buying power and produce maintainable thriving between districts.

Indonesia's test as an agricultural nation is that there are as yet financial, social and medical conditions. Focal Kalimantan as one of the areas comprising of 14 districts/ urban communities in Indonesia, has encountered imbalance in flourishing in the greater part of its rules over the most recent five years, including Sukamara Regency.

Based on BPS data (2021), Sukamara Regency has the lowest 2016-2020 ADHK GRDP and it takes place consistently every year. Viewed from the other side, the average GRDP rate per capita of ADHK 2016-2020 is 2.45%, indicating that this area is also still below the overall district/ city average of 3.32%. This district also has the second lowest average HDI figure for 2016-2020 after Seruyan. It can be seen that, this actually proves that the quality of the prosperity of Sukamara Regency both economically and socially still needs to be further improved in an effort to support the economic strength of Kalimantan Tengah.

Based on distance data by BPS (Central Statistic Agency, 2020), Sukamara Regency is the farthest area from its growth center, such as Palangkaraya City (686 km) and Mas Mountain (866 km). Relying on the assumption that distance is a barrier in interaction/ performance/ trade volume Fevriera et al., (2021), Host et al., (2019), Inayah et al., (2016), Kassa (2013), Muharami & Novianti (2018), Ridwannulloh &

Sunaryati (2018), Rindayati & Kristriana (2018), Rizal, (2018), and the potential for growth centers in stimulating the prosperity of the surrounding area Rossi (2020), Rustiadi (2018), Sukamara Regency has little an open door to acquire exchange benefits (spread impact) from Growth the middle. This further makes the seclusion of a locale for the advantages of trading data, innovation, and HR which are especially required in working on the nature of its flourishing. This starts that the planning of driving business areas assumes a significant part with regards to financial improvement around here. Subsequently, this study decides the plan of the issue in regards to what business fields are suggested as the main areas of advancement in Sukamara Regency.

Several studies on leading sectors have been carried out both in Central Kalimantan and other regions in Indonesia using an economic base approach. Some studies present results on each method and some have combined results from several methods (overlay). Referring to previous research Ardila (2012), Cahyono et al., (2020), Restiatun (2009), Soebagyo & Hascaryo (2016), the use of the Location Quotient (LQ) method has been carried out in determining leading sectors. The concentrate by Pratiwi (2021b), prevailed with regards to introducing an investigation of the change in the construction of the economy utilizing Shift Share Analysis (SSA) which was then named solid or powerless in a financial area as per the Enders class. Moreover, a few others have additionally introduced driving areas in light of the cross-over among: LQ and MRP Panjiputri (2013), Pratiwi & Kuncoro (2016), Pratomo (2014), LQ and Shift Share Central Statistic Agency (2019), LQ, Klassen Typology, Shift Share Darma P. & Pratiwi, 2019). Besides, the utilization of Klassen Typology has been utilized in blend in view of the

strategies: LQ and Shift Share Analysis Rusdarti & Fafurida (2016); and SLQ and DLQ (Kharisma et al., 2021; Pratiwi & Kuncoro, 2016). The honor was likewise addressed to a few past examinations (Central Statistic Agency, 2017c, 2017d, 2017e, 2017a, 2017f, 2017b; Satrianto & Sasongko, 2019), which have introduced outcomes alluding to the overlay technique in view of LQ, Klassen Typology, Shift Share, and MRP. The show in a covering way shows the measures for the main area through the satisfaction of different stricter prerequisites. In accordance with the past outcomes Satrianto & Sasongko (2019), testing the business area utilizing 5 methodologies (LQ, Klassen Typology, Shift Share, and MRP, and Overlay) is more prescribed to be the main area of advancement thinking about that not everything driving areas can get by to satisfy each technique. All things considered; the general work actually leaves inquiries regarding what areas are produced from a few financial base methodologies in consistently.

As the matter of fact, several regions in Kalimantan experience structural fluctuations in business fields throughout the year, such as the shift from the agricultural sector to industry Pratiwi (2021a), as well as changes in the status of the advanced, developing, depressed, and underdeveloped Province categories in Kalimantan (Madina & M, 2020). In addition, the center of growth in Kalimantan Tengah underwent a change in its history. The findings of Central Kalimantan's growth centers have been presented with addresses at West Kotawaringin Regency and Palangkaraya City (Pratiwi & Kuncoro, 2016). Over time, new areas were added in East Kotawaringin Regency Pratiwi (2017), and Mas Mountain Regency (Putra et al., 2020). Of course, the determination of growth centers has reflected the capacity of the leading sector because of its ability to create trade relations between regions (spread effect). This initiates that fluctuations in the leading

business sector have also occurred throughout the year. In contrast to previous studies, this research also presents the results of an economic base approach in every year as the basis for recommendations for leading sectors.

From a few past works, the introduction of the monetary base methodology in an overlay way actually disregards the heaviness of accomplishments and rankings in every technique which obviously has an alternate examination esteem between different areas. As such, this implies that the coefficients of every part are something very similar (Darma, P. & Pratiwi, 2019). So, in concurrence with the review by Rizani (2019, 2020), this concentrate likewise involves a weighting computation for every technique utilized. Nonetheless, the definition and order of driving areas is not yet completely clear. In this manner, the arrangement of the weighted qualities into 4 classes of business areas by (alluding to regular breaks) is the proposed update of all beforehand accessible data.

To fill the hole over, this study means to decide the "high potential" business field to be created in Sukamara Regency, Central Kalimantan. In the first place, this article gives data on the sturdiness or potentially business variances of an area each year, remembering for 2020 where the greater part of the business areas experienced negative shocks over their time. Second, the after effects of this study can likewise be utilized as the reason for deciding the worth of the pay base multiplier, which is extremely helpful for investigating territorial financial development rate projections later on. This research is expected to benefit the further research on the the potential of economic sectors, that needs to be developed by the government. In line with this, the economic prosperity in Sukamara regency will be advanced in the future.

METHOD

The object of this research uses GRDP data from 17 Sukamara Regency Business Fields on the Basis of Constant Prices with an observation period in 2016-2021. The method used in this research is quantitative descriptive analysis where the researcher uses Location Quotient (LQ) analysis weighting, Growth Ratio Model (MRP), Sectoral Contribution Percentage and Growth Rate, Shift Share (SSA) analysis, and Overlay. Where every pointer is weighted with a greatest score of 17 and at least 1 in view of the aftereffects of the accomplishments of each monetary movement in every extended time of investigation.

The Location Quotient (LQ) strategy means to break down the potential areas that exist in a space against a similar movement in a more extensive region as a kind of perspective for evaluation. LQ investigation comprises of 2 sorts, to be specific: Statistical Location Quotient (SLQ) and Dynamic Location Quotient (DLQ). The equation for LQ examination (Saragih, 2015; Sjafrizal, 2014; Tarigan, 2012) is:

$$SLQ = ((qi/qr)/(Qi/Qn)) \qquad (1)$$

Notes:

Qi is a value of Gross Regional Domestic Product (GRDP) of sector/ activity/ activity i in the region; qr is a total Gross Regional Domestic Product (GRDP) in all sectors/ activities in the region; Qi is a value of Gross Regional Domestic Product (GRDP) Province sector/ activity i; Qn is a total Gross Regional Domestic Product (GRDP) in all sectors/ activities in the province.

As indicated by Sjafrizal (2014), in the event that the worth: (a) SLQ > 1, the area is classified as a main area or base area. This implies that the degree of creation from the area is adequate to address the issues of the locale or even be sent out to different districts; (b) SLQ < 1, then the sector is not a leading sector, which means that the production from that sector is not sufficient for regional needs, hence requiring assistance from other regions; (c) SLQ = 1, then

the sector can only meet the needs in its own region and cannot export to other regions.

DLQ is the development of SLQ analysis where DLQ uses the growth rate of the economic sector from time to time. Referring to Kuncoro quoted by Putra, et al., (2019), the DLQ formula used is:

$$DLQij = ((1 + gij) / (1 + gj)) / ((1 + Gi) / (1 + Gj)) \qquad (2)$$

Notes:

gij = growth rate of sector i in the region.

gj = average sector growth rate in the region.

Gi = growth rate of sector i in the province.

Gj = average sector growth rate in the province.

DLQ > 1 indicates that sector i growth in Sukamara is better than sectoral growth in Kalimantan Tengah, and otherwise. The use of growth sectoral components (in Sukamara, or even in Province level) becomes the base difference in calculating the DLQ with the SLQ. Moreover, DLQ can also reflect e sector that has a faster growth compared to the province level, and also estimated to have the durability of comparative advantage in the future and hereinafter referred to as the future sector.

Development Ratio Model (MRP), which is practically equivalent to the LQ examination, however varies in the estimation measures where the LQ investigation utilizes conveyance rules, while the MRP utilizes development rules. The Growth Ratio Model (MRP) will prove that the sector of the study area has a higher growth rate than the sector of the larger region or the reference area. In MRP, researchers categorize the results of the analysis into very potential, potential, less potential, and not potential.

In the MRP analysis there are 2 growth ratios, namely RPs and RPr. According to Buhana and Masyuri quoted by Putra, et al., (2019), the formula used is:

$$RPr = ((\Delta YiR / Yir(t))) / ((\Delta YR / YR(t))) \qquad (3)$$
$$RPs = (\Delta Yij / Yij(t)) / (\Delta YiR / Yir(t)) \qquad (4)$$

Notes:

Yir is the change in GRDP in sector i in Central Kalimantan Province; Yir(t) is the GRDP in sector i in Central Kalimantan Province in the previous year; Yr is the Change in GRDP in Central Kalimantan Province; Yr(t) is the GRDP in Central Kalimantan Province in the previous year; Yij is the change in GRDP in sector i in Sukmara Regency; Yij is the GRDP in sector i in Sukmara Regency in the previous year.

When RPr > 1 and RPr is positive. Therefore, the growth in sector i in Central Kalimantan n Province has a higher rate than the total growth in Central Kalimantan Province.

When RPr < 1 and RPR is negative. So, the growth in sector i in Central Kalimantan Province has a lower rate than the total growth in Central Kalimantan Province.

When RPs > 1 and RPs are positive. Consequently, growth in sector i of Sukamara Regency has a higher rate than growth in the same sector in Central Kalimantan Province.

When RPs < 1 and RPs are negative. Like so, growth in sector i of Sukamara Regency has a lower rate than growth in the same sector in Central Kalimantan Province.

Level of Sectoral Contribution and Growth Rate are weighted in light of the level of sectoral commitment and the level of sectoral development rate. The level of sectoral commitments delineates the size of specific business fields in running the economy for that year. This computation is the level of the division between sectoral GRDP and by and large GRDP for that year. The sectoral development rate alludes to the rate expansion in sectoral GRDP from one year to another.

Shift Share (SSA) analysis, which is an analysis that aims to determine the level of work productivity or economic performance in an area by comparing the area with a larger area. The

mathematical formulations in shift share analysis with reference to Sjafrizal (2014) are:
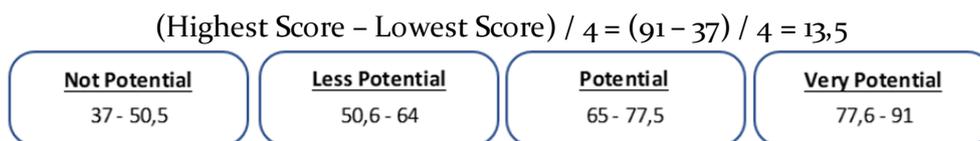
$$\Delta Yi = [Yi (Yt / Yo - 1)] + [Yi (Yi^t / Yi^o) - (Y^t / Y^o)] + [Yi (Yi / Yi^o) - (Yi^t / Yi^o)] \quad (5)$$

Notes:

ΔYi is the change in value added sector i; Yt is the total value added at the provincial level at the end of the period; Yo is the total value added at the provincial level at the beginning of the period; Yi^t is the added value of sector i at the district level at the end of the period; Yi^o is the added value of sector i at the district level at the beginning of the period; Yi is the added value of sector i at the district level at the end of the period; Yi^o is the added value of sector i at the district level at the beginning of the period; Yi^t is a value added sector i at the provincial level at the end of the period; Yi^o is a value added sector i at the provincial level at the beginning of the period.

The investigation utilizes three inter-related data, specifically: (a) the impact of financial development on the area or territory; (b) Proportional Shift (PS) or corresponding movement or relative shift; and (c) Differential Shift (DS) or differential shift or assurance of industry seriousness. The more certain PS and DS, the higher the seriousness of the business.

The weighting technique utilized alludes to relative weighting where the most elevated worth is diminished by the least worth and afterward partitioned into four classes including Very Potential, Potential, Less Potential, and Not Potential. In this review, the assigned areas allude to those that have prevailed with regards to having the "extremely potential" predicate in every extended period of investigation (2016-2020). The length of the class span for characterizing evaluation classifications is similar to the accompanying model:

(Highest Score – Lowest Score) / 4 = (91 – 37) / 4 = 13,5

Not Potential	Less Potential	Potential	Very Potential
37 - 50,5	50,6 - 64	65 - 77,5	77,6 - 91

RESULTS AND DISCUSSION

In contrast to the previous one, this study collects ranking weightings for each year of analysis (2016, 2017, 2018, 2019, and 2020) on each economics base approach used (is SLQ, DLQ, MRP, Shift Share, and Klassen Tipolgy). Therefore, scarcely ready to meet the DLQ or SLQ scores > 1, (for example, in the numbers 0.99, 0.98, and so forth), this area isn't quickly prohibited from thought. This was started in light of the accompanying contentions: (1) alluding to what in particular is inferred in Rizani (2019, 2020), in deciding possible areas, but huge or little the numbers should be analyzed between different areas; (2) the need to consider the generally sectoral computation accomplishments in every

technique Satrianto & Sasongko (2019), even the yearly turn of events; (4) the requirement for order with clear limits that reliably allude to the by and large sectoral estimation accomplishments, taking into account that not everything areas can meet the necessities of the financial aspects base methodology with different contrasts.   In essence, as a consequence, this proposal allows a sector that cannot meet the requirements of a certain approach (such as LQ, RPs, or RPr which requires a score > 1), but numerical achievements and comparisons with other sectors are still valued by weighting the rankings between sectors. Other. In other words, a weighted ranking allows a sector to be recommended even if there are weaknesses in one or more of the approaches.

Table 1. Recapitulation of the Weighted Value of the Economics Base Approach 2016

Economic Sector	LQ		MRP		Shift Share		Sectoral contribution	Growth contribution	Total score	Classification of economic potential
	SLQ	DLQ	RPs	RPr	DS	PS				
Agriculture, Fisheries and Forestry	17	12	12	4	16	1	17	4	83	Very Potential
Mining and excavation	1	4	4	12	5	11	5	6	48	Not Potential
Processing industry	16	8	8	11	2	17	16	8	86	Very Potential
Electricity and Gas Supply	4	10	10	17	10	9	2	17	79	Very Potential
Water Supply, Waste Treatment, Waste and Recycling	2	5	5	6	9	7	1	2	37	Not Potential
Construction	11	3	3	15	1	15	14	5	67	Potential
Wholesale and Retail Trade; Car and Motorcycle Repair	13	7	7	16	3	16	15	10	87	Very Potential
Transportation and Warehousing	3	9	9	13	7	14	11	11	77	Potential
Provision of Accommodation and Food and Drink	6	6	6	14	6	13	6	7	64	Less Potential
Information and Communication	15	13	13	8	12	6	8	13	88	Very Potential
Financial Services and Insurance	5	11	11	10	11	12	10	14	84	Very Potential
Real Estate	7	16	16	2	13	5	7	15	81	Very Potential
Company Services	14	2	2	7	8	8	3	3	47	Not Potential
Government Administration, Defense and Social Security	12	17	17	1	17	2	13	12	91	Very Potential
Education Services	9	14	14	5	15	3	12	9	81	Very Potential
Health Services and Social Activities	10	15	15	3	14	4	9	16	86	Very Potential
Other Services	8	1	1	9	4	10	4	1	38	Not Potential

Note: Highest Score = 91; Lowest Score = 37; Interval = 13,5.

Classification = Not Potential: 37 – 50,5; Less Potential: 50,6 -64; Potential: 65 – 77,5; Very Potential: 77,6 – 91.

Source: Research data processed, 2021

Referring to the table above, it can be concluded that there are ten sectors with great potential to be developed based on the achievement of their weight values with the highest order in a row, including: (1) Government Administration; (2) Information and Communication; (3) Trade; (4) Processing Industry; (5) Health and Social Affairs; (6) Finance and Insurance; (7) Agriculture, Fisheries and Forestry; (8) Education; (9) Real Estate; and (10) Electricity and Gas Procurement. In depth, by looking at the appendices, the ten sectors actually have weaknesses in one or more economics base

approaches. Government activities; information and communication; education; health; Agriculture; Real estate 2016 actually did not stand out at the provincial level as indicated by the MRP_Rpr value of less than 1 (0.22; 0.98; 0.77; 0.63; 0.69; 0.56) and this was also strengthened by the Shift value. Share_PS with negative numbers. Communication information; health, education, social service activities; education; finance and insurance; real estate; electricity and gas also contribute below the overall sectoral average, so when viewed from the perspective of the Klassen Typology approach, this sector is not categorized as the best. Likewise, agricultural activities actually

had a growth rate below the sectoral average in 2016. Furthermore, manufacturing industry activities; and trade each also has a value that is almost able to meet the DLQ > 1 values of 0.89 and 0.84, which means that the growth rate is lower in quality than the reference level (Province). These two sectors also voiced the MRP_RPs value of less than 1 which means the growth of this activity is smaller than the growth in the reference area and this is also reinforced by the negative Shift Share_Ds number. Likewise in educational activities; real estate; electricity and gas; and finance and insurance showed the achievement of SLQ 2016 < 1. Likewise with agricultural activities; education and health shows Shift Share_PS with negative numbers.

Table 2. Recapitulation of the 2017 Economics Base Approach Weight Value

Economic Sectors	LQ		MRP		Shift Share		Sectoral contribution	Growth contribution	Total Score	Classification of economic potential
	SLQ	DLQ	RPs	RPr	DS	PS				
Agriculture; Fisheries and Forestry	17	12	12	6	17	1	17	8	90	Very Potential
Mining and excavation	1	1	1	15	4	13	5	1	41	Not Potential
Processing industry	16	6	6	17	1	17	16	17	96	Very Potential
Electricity and Gas Supply	4	4	4	11	8	12	2	5	50	Not Potential
Water Supply; Waste Processing; Waste and Recycling	2	17	17	1	9	10	1	10	67	Less Potential
Construction	11	10	10	8	13	4	14	9	79	Potential
Wholesale and Retail Trade; Car and Motorcycle Repair	12	7	7	13	2	16	15	15	87	Very Potential
Transportation and Warehousing	3	8	8	14	6	14	11	16	80	Potential
Provision of Accommodation and Food and Drink	6	11	11	9	11	8	6	11	73	Potential
Information and Communication	15	3	3	12	5	9	8	6	61	Less Potential
Financial Services and Insurance	5	2	2	16	3	15	10	4	57	Less Potential
Real Estate	8	16	16	5	14	5	7	14	85	Very Potential

Economic Sectors	LQ		MRP		Shift Share		Sectoral contribution	Growth contribution	Total Score	Classification of economic potential
	SLQ	DLQ	RPs	RPr	DS	PS				
Company Services	14	5	5	7	7	11	3	3	55	Less Potential
Government Administration; Defense and Social Security	13	15	15	3	16	2	13	12	89	Very Potential
Education Services	9	14	14	2	15	3	12	7	76	Potential
Health Services and Social Activities	10	13	13	10	12	6	9	13	86	Very Potential
Other Services	7	9	9	4	10	7	4	2	52	Not Potential

Note: Highest Score = 96; Lowest Score = 41; Interval = 13,75.

Classification = Not Potential: 41 – 54,75; Less Potential: 54,76 – 68,5; Potential: 68,6 – 82,25; Very Potential: 82,26 – 96.

Source: Research data processed, 2021

From the table above, in 2017 there were only 6 sectors that were declared very potential. Based on the highest order in a row, among others: Agriculture; Processing industry; Government administration; Trading; Health and Social Activities; and Real Estate. These results indicate that in 2017 there were structural fluctuations in the economy. In other words, not all leading sectors can survive fulfilling every method as in 2016. This is evidenced in the Electricity and Gas Procurement sector being a non-potential activity in 2017, as well as the Information and Communications sector; and Financial Services in 2017 is a sector that lacks potential. Likewise, the education services sector in 2017 experienced a setback and was no longer a sector with great potential.

Table 3. Recapitulation of the Weight Value of the Economics Base Approach 2018

Economic Sector	LQ		MRP		Shift Share		Sectoral contribution	Growth contribution	Total Score	Classification of economic potential
	SLQ	DLQ	RPs	RPr	DS	PS				
Agriculture; Fisheries and Forestry	17	9	10	6	2	16	17	9	86	Very Potential
Mining and excavation	1	17	1	1	14	4	5	1	44	Not Potential
Processing industry	16	12	13	4	16	2	16	8	87	Very Potential
Electricity and Gas Supply	4	13	14	16	12	7	2	16	84	Very Potential

Economic Sector	LQ		MRP		Shift Share		Sectoral contribution	Growth contribution	Total Score	Classification of economic potential
	SLQ	DLQ	RPs	RPr	DS	PS				
Water Supply; Waste Processing; Waste and Recycling	2	14	15	15	11	5	1	17	80	Very Potential
Construction	14	16	17	2	17	1	14	3	84	Very Potential
Wholesale and Retail Trade; Car and Motorcycle Repair	11	5	6	17	1	17	15	15	87	Very Potential
Transportation and Warehousing	3	8	9	9	5	13	11	11	69	Potential
Provision of Accommodation and Food and Drink	6	11	12	5	13	8	6	14	75	Potential
Information and Communication	15	4	5	10	6	10	8	7	65	Less Potential
Financial Services and Insurance	5	15	16	3	15	3	10	2	69	Potential
Real Estate	8	7	8	14	7	11	7	12	74	Potential
Company Services	13	2	3	8	10	6	3	5	50	Not Potential
Government Administration; Defense and Social Security	12	10	11	7	9	14	13	13	89	Very Potential
Education Services	9	6	7	12	3	15	12	10	74	Potential
Health Services and Social Activities	10	1	2	13	4	12	9	4	55	Not Potential
Other Services	7	3	4	11	8	9	4	6	52	Not Potential

Note: Highest Score = 89; Lowest Score = 44; Interval = 11,25.

Classification = Not Potential: 44 – 55,25; Less Potential: 55,26 – 66,5; Potential: 66,6 – 77,75; Very Potential: 77,76 – 89.

Source: Research data processed, 2021

From the the table above, in 2018 there were 7 areas that were proclaimed to be extremely potential. In view of the greatest request in succession, among others: Government Administration; Trade/ Processing Industry; Agriculture; Electricity and Gas Procurement; and Construction Activities. In 2018, the power and gas obtainment area has again turned into an exceptionally likely area, similar to the exercises of water supply, waste, waste, and reusing; and Construction in 2018 has expanded to turn into an extremely possible area.

Based on the table above, it can be concluded that there are 4 sectors which are stated to be very potential to be developed. Based on the highest order in a row, among others: Construction; Agriculture; Processing industry; and Education. In 2019, there was an increase in the performance of Education Services from the previous year, and it was proven to be a very potential sector.

Table 4. Recapitulation of the Weighted Value of the Economics Base Approach 2019

Economic Sector	LQ		MRP		Shift Share		Sectoral contribution	Growth contribution	Total Score	Classification of economic potential
	SLQ	DLQ	RPs	RPr	DS	PS				
Agriculture; Fisheries and Forestry	16	9	9	15	1	17	17	15	99	Very Potential
Mining and excavation	1	5	5	5	7	5	5	3	36	Not Potential
Processing industry	17	17	17	1	17	1	16	12	98	Very Potential
Electricity and Gas Supply	4	1	1	17	11	10	2	6	52	Not Potential
Water Supply; Waste Processing; Waste and Recycling	2	16	15	8	15	7	1	17	81	Potential
Construction	14	12	13	14	6	16	14	16	105	Very Potential
Wholesale and Retail Trade; Car and Motorcycle Repair	11	7	7	10	2	13	15	7	72	Potential
Transportation and Warehousing	3	4	4	16	3	15	11	10	66	Less Potential
Provision of Accommodation and Food and Drink	6	10	10	9	10	9	6	11	71	Less Potential
Information and Communication	15	15	16	3	16	4	8	9	86	Potential
Financial Services and Insurance	5	2	2	6	4	6	10	1	36	Not Potential
Real Estate	8	13	12	2	12	2	7	2	58	Less Potential
Company Services	12	3	3	13	13	8	3	5	60	Less Potential
Government Administration; Defense and Social Security	13	8	8	11	5	14	13	13	85	Potential
Education Services	9	14	14	7	14	11	12	14	95	Very Potential
Health Services and Social Activities	10	11	11	4	9	3	9	4	61	Less Potential
Other Services	7	6	6	12	8	12	4	8	63	Less Potential

Note: Highest Score = 105; Lowest Score = 36; Interval = 17,25.

Klasifikasi = Not Potential: 36 – 53,25; Less Potential: 53,26 – 70,5; Potential: 70,6 – 87,75; Very Potential: 87,76 – 105.

Source: Source: Research data processed, 2021

Table 5. Recapitulation of the Weighted Value of the Economics Base Approach 2020

Economic Sector	LQ		MRP		Shift Share		Sectoral contribution	Growth contribution	Total Score	Classification of economic potential
	SLQ	DLQ	RPs	RPr	DS	PS				
Agriculture; Fisheries and Forestry	16	15	17	9	17	16	17	11	118	Very Potential
Mining and excavation	1	7	9	15	11	2	5	2	52	Not Potential
Processing industry	17	16	1	10	16	14	16	12	102	Very Potential
Electricity and Gas Supply	3	9	12	1	6	8	3	17	59	Less Potential
Water Supply; Waste Processing; Waste and Recycling	2	3	4	6	7	7	1	5	35	Not Potential
Construction	14	8	11	16	15	1	14	1	80	Potential
Wholesale and Retail Trade; Car and Motorcycle Repair	12	17	2	11	14	10	15	9	90	Potential
Transportation and Warehousing	4	1	3	12	13	4	11	13	61	Less Potential
Provision of Accommodation and Food and Drink	6	11	14	13	10	5	6	3	68	Less Potential
Information and Communication	13	12	13	3	4	11	8	16	80	Potential
Financial Services and Insurance	5	10	10	4	3	13	10	14	69	Less Potential
Real Estate	7	14	16	8	8	9	7	6	75	Less Potential
Company Services	15	4	7	17	9	6	2	4	64	Less Potential
Government Administration; Defense and Social Security	11	5	6	2	1	17	13	7	62	Less Potential
Education Services	10	13	15	7	5	15	12	15	92	Potential
Health Services and Social Activities	9	6	8	5	2	12	9	10	61	Less Potential
Other Services	8	2	5	14	12	3	4	8	56	Less Potential

Note: Highest SCore = 118; Lowest Score = 35; Interval = 20,75.

Classification = Not Potential: 35 – 55,75; Less Potential: 55,76 – 76,5; Potential: 76,6 – 97,25; Very Potential: 97,26 – 118.

Source: Research data processed, 2021

Referring to the table above in 2020 there are only 2 sectors that are able to survive on 5 methods and are declared to be very potential to be developed with the highest order in a row including: Agriculture; and Processing Industry. In contrast to previous years, most sectors experienced a decline in performance in 2020 due to the Covid-19 pandemic. Sectors that experienced a decline in performance were: Water Supply, Garbage, Waste, and Recycling; Construction; Government administration; and Education Service.

Table 6. Sectoral Economics Base Approach 2016-2020

| Economic Sector	2016	2017	2018	2019	2020
Agriculture; Fisheries and Forestry	Very Potential	Very Potential	Very Potential	Very Potential	Very Potential
Mining and excavation	Not Potential	Not Potential	Not Potential	Not Potential	Not Potential
Processing industry	Very Potential	Very Potential	Very Potential	Very Potential	Very Potential
Electricity and Gas Supply	Very Potential	Not Potential	Very Potential	Not Potential	Less Potential
Water Supply; Waste Processing; Waste and Recycling	Not Potential	Less Potential	Very Potential	Potential	Not Potential
Construction	Potential	Potential	Very Potential	Very Potential	Potential
Wholesale and Retail Trade; Car and Motorcycle Repair	Very Potential	Very Potential	Very Potential	Potential	Potential
Transportation and Warehousing	Potential	Potential	Potential	Less Potential	Less Potential
Provision of Accommodation and Food and Drink	Less Potential	Potential	Potential	Less Potential	Less Potential
Information and Communication	Very Potential	Less Potential	Less Potential	Potential	Potential
Financial Services and Insurance	Very Potential	Less Potential	Potential	Not Potential	Less Potential
Real Estate	Very Potential	Very Potential	Potential	Less Potential	Less Potential
Company Services	Not Potential	Less Potential	Not Potential	Less Potential	Less Potential
Government Administration; Defense and Social Security	Very Potential	Very Potential	Very Potential	Potential	Less Potential
Education Services	Very Potential	Potential	Potential	Very Potential	Potential
Health Services and Social Activities	Very Potential	Very Potential	Not Potential	Less Potential	Less Potential
Other Services	Not Potential	Not Potential	Not Potential	Less Potential	Less Potential

Source: Research data processed, 2021.

The following is the sum up of the achievements of the economic based approach between 2016-2020. In general, the table above illustrates the trend/development in the number of leading sectors that are getting less and less. Looking at the table, it can be seen that not all sectors are able to survive or carry the same predicate or category every year. In 5 years of observation, only the agricultural sector and the processing industry have managed to maintain the achievement of the "very potential" classification. Even during the Covid-19 pandemic in 2020, the two sectors were resilient to economic shocks (Real Shock) which resulted in the performance of most economic activities being hampered and reducing investment decisions in starting businesses of economic actors. This is also in line with Cowen & Tabarrok (2013a), which expresses that along the course of the economy there are possible deterrents, to be specific negative shocks that can possibly build vulnerability in settling on business speculation choices which thusly will bring about the pace of financial development at a lower position than previously.

The agricultural sector and processing industry are recommended as business fields with "very potential" for local government attention to develop. This is in line with information from Central Statistic Agency (2017g), which states that the two sectors have the largest employment absorption in Sukamara Regency. Furthermore, the role of the processing industry is supported by the subcategory of the food and beverage industry where its development is assisted by the CPO (Crude Palm Oil) industry which is produced by the Plantation Category economic activity (Central Statistic Agency, 2017g). Based on the attached result, these both sectors show the consistency of SLQ above 1 from 5 years of observation. Besides, these sectors have a DLQ trend which relatively better by average

annually, or in every five years. This is in line with the results of previous research (Kharisma et al., 2021), which states that the combination of analysis between SLQ and DLQ which is more than 1 can be stated as a leading sector that has a comparative advantage at this time and will maintain its superiority in the future. These two potential sectors are also related to the results Darma P. & Pratiwi (2019), mentions that Kalimantan's economy is still dependent on natural resources supported by the agricultural, mining, and manufacturing sectors.

Taken from the appendix, the results of this study do not at all find a sector that is fully able to meet the assumptions of the economic based approach every year. This result is in line with the published information on the results of listing the economic potential of BPS Sukamara (2017g), using labor input data, stating the inability of the entire sector to meet the expected economic based approach assumptions. This is different from previous results Rizani (2019, 2020), which found LQ and MRP > 1; Shiftshare (dij) notation + on the results of the economic based approach. This is because this study uses additional weighting indicators for sectoral economic contribution, growth rate and calculation of MRP (Rpr) yet demanding the fulfillment of various stricter conditions.
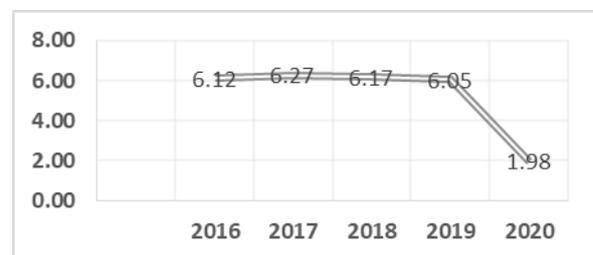
Source: Research data processed, 2021

Figure 1. Growth rate of Sukamara Regency

Referring to the graph above, the growth rate of Sukamara Regency in 2020 also fell sharply compared to the previous 4 years in the range of 6% to 1.98% in 2020. In the era of the Covid-19 disaster, people were faced with a situation of worrying about the future of their business continuity, not even a small amount of

energy. Laid-off work so that this adds to the increasingly real condition of uncertainty which in turn has the potential to reduce spending growth. This is in line with Keynes' argument quoted by Cowen & Tobarrok (2013b), the condition of "animal spirit" also applies in the midst of the Covid-19 disaster, marked by doubts and delays in people's spending from various desires.

CONCLUSION

As can be seen from the outcomes of table 6, it tends to be presumed that Sukamara Regency is as yet subject to the rural business field and the handling business as its driving area. This supposition that is fortified by taking a gander at the accomplishment of the weighting of the two sectors in the exceptionally potential order reliably throughout the previous 5 years. Also, these two sectors figured out how to accomplish a SLQ score above more than 1 and the level of sectoral commitments over the normal.

In essence, these two sectors do not consistently meet the prerequisites of the financial base methodology. To begin with, it has a positive documentation towards the Shift Share approach (DS and PS). Second, it is worth more than 1 on each RPr as well as RPs. Third, the sectoral rate is higher than the in general sectoral normal. Fourth, the DLQ esteem which does not dependably surpass 1 with respect to model in the DLQ which was disregarded by the rural area in 2018 (0.92) and the assembling area in 2016 and 2017 (0.89 and 0.87).

The consequences of the review give another responsibility that this weighting strategy permits infringement of the details of the financial base way to deal with still be compensated through weighting accomplishments by contrasting and different areas. Moreover, this approach has the

outcome that business handles that do not meet the necessities of a specific financial base methodology won't consequently be crossed out as expected areas.

REFERENCES

Ardila, R. (2012). Analysis of Development of Economic Growth Center in Banjarnegara Regency. *Economics Development Analysis Journal*, *1*(2), 1–9. https://doi.org/10.15294/edaj.v1i2.482

Cahyono, S., Falah, F., & Raharjo, S. (2020). Identification Of Leading Economic Sectors In The Rawa Pening Lake Catchment [*Identifikasi Sektor Ekonomi Unggulan di Daerah Tangkapan Air Danau Rawa Pening*]. Regional And Environmental Journal [*Jurnal Wilayah Dan Lingkungan*], *8*(1), 36–50. https://doi.org/10.14710/jwl.8.1.36-50

Central Statistic Agency. (2017a). Analysis Of Economic Census 2016 Listing Results Of The Economic Potential Of Mas Mountain Regency. *BPS-Statistics of Mas Mountain Regency*.

Central Statistic Agency. (2017b). Analysis Of Economic Census 2016 Listing Results Of The Economic Potential Of Kapuas Regency. *BPS-Statistics Of Kapuas Regency*.

Central Statistic Agency. (2017c). Analysis Of Economic Census 2016 Listing Results Of The Economic Potential Of West Kotawaringin Regency. *BPS-Statistics of West Kotawaringin Regency*.

Central Statistic Agency. (2017d). Analysis Of Economic Census 2016 Listing Results Of The Economic Potential Of East Kotawaringin Regency. *BPS-Statistics Of East Kotawaringin Regency*.

Central Statistic Agency. (2017e). Analysis Of Economic Census 2016 Listing Results Of The Economic Potential Of Palangkaraya

Municipality. *Central Statistics Agency (BPS) Palangkaraya City [Badan Pusat Statistik (BPS) Kota Palangkaraya].*

Central Statistic Agency. (2017f). Analysis Of Economic Census 2016 Listing Results Of The Economic Potential Of Seruyan Regency. *BPS-Statistics Of Seruyan Regency.* Central Statistic Agency. (2017g). Analysis Of Economic Census 2016 Listing Results Of The Economic Potential Of Sukamara Regency. *BPS-Statistics Of Sukamara Regency.*

Central Statistic Agency. (2019). Priority Sectors Analysis Of West Kotawaringin Regency. *BPS-Statistics Of West Kotawaringin Regency.*

Central Statistic Agency. (2020). Central Kalimantan Province In Figures 2020. *BPS-Statistics Of Central Kalimantan Province.*

Central Statistic Agency. (2021). Central Kalimantan Province In Figures 2021. *BPS-Statistics Of Central Kalimantan Province.*

Cowen, T., & Tabarrok, A. (2013a). Modern Principles : Macroeconomics (2nd ed.). *Worth Publisher.*

Cowen, T., & Tabarrok, A. (2013b). Modern Principles of Economics (2nd ed.). *Worth Publisher.*

Darma, P., & Pratiwi, M. (2019). Identification Of Leading Sector And Cluster Analysis Of Regencies In Kalimantan. *Economics Development Analysis Journal, 8*(2), 224–243. https://doi.org/10.15294/edaj.v8i2.27237

Fevriera, S., Marettania, N., & Siwi, V. (2021). Hofstede's Cultural Dimensions In The Gravity Model Using Mixed-Effect Model. *Journal Of Economics And Business [Jurnal Ekonomi Dan Bisnis], 24*(2), 307–328. https://doi.org/10.24914/jeb.v24i2.4572

Guimarães, M., Sousa, C., Dentinho, T., & Boski, T. (2014). Economic Base Model For The Guadiana Estuary, Portugal An Application For Integrated Coastal Zone Management. *Marine Policy, 43,* 63–70. https://doi.org/10.1016/j.marpol.2013.03.010

Host, A., Skender, H., & Zaninović, P. (2019). Trade Logistics — The Gravity Model Approach. *Zbornik Radova Ekonomskog Fakulteta U Rijeci, 37*(1), 327–342. https://doi.org/10.18045/zbefri.2019.1.327

Inayah, I., Oktaviani, R., & Daryanto, H. (2016). The Analysis Of Export Determinant Of Indonesian Pepper In The International Market. *International Journal Of Science And Research (IJSR), 5*(11), 1856–1860. https://doi.org/10.21275/ART20163261

Kassa, A. (2013). Evaluation Of Ethiopia's Bilateral And Potential Exports In The Middle East : A Gravity Model Approach. *Journal Of Emergin Trends In Educational Research And Policy Studies, 4*(1), 198–204.

Kharisma, B., Remi, S., Wardhana, A., Roseline, H., & Rosiyan, M. (2021). The Determination Of Leading Sectors To Improve Bandung City's Competitiveness. *Economics Development Analysis Journal, 10*(3), 270–285. https://journal.unnes.ac.id/sju/index.php/edaj/article/view/44884

Madina et al. (2020). The Inequality Of Regional Economics Development In *Kalimantan (Shift Share Approach). Ecoplan, 3*(1), 22–25. https://doi.org/10.20527/ecoplan.v3i1.79

Muharami, G., & Novianti, T. (2018). Analysis Of Indonesian Rubber Exports Performance To Latin America. *Indonesian Agribusiness Journal [Jurnal Agribisnis Indonesia], 6*(1), 15–26. https://doi.org/https://doi.org/10.29244/jai.2018.6.1.1-12

Panjiputri, A. (2013). Analysis Of Potential Development Of Economic Growth Center In The Strategic Area Of Tangkallangka. *Economics Development Analysis Journal,*

2(3),   1–13.
https://doi.org/10.15294/edaj.v2i3.1972

Pratiwi, M. (2017). Spillover Effect And Growth Pole Analysis In Central Kalimantan Province. *Journal of Development Policy* [*Jurnal Kebijakan Pembangunan*], 12(2), 243–263.

Pratiwi, M. (2021a). Analysis Of Interregional Inequality And Shifts In Economic Structure In Kalimantan [*Analisis Ketimpangan Antarwilayah Dan Pergeseran Struktur Ekonomi Di Kalimantan*]. *Journal of Borneo Administrator* [*Jurnal Borneo Administrator*], 17(1), 131–154. https://doi.org/10.24258/jba.v17i1.779

Pratiwi, M. (2021b). Analysis Of Interregional Inequality And Shifts In Economic Structure In Kalimantan [*Analisis Ketimpangan Antarwilayah Dan Pergeseran Struktur Ekonomi Di Kalimantan*]. *Journal of Borneo Administrator* [*Jurnal Borneo Administrator*], 17(1), 131–154. https://doi.org/10.24258/jba.v17i1.779

Pratiwi, M., & Kuncoro, M. (2016). Analysis Of Growth Poles And Spatial Autocorrelation In Kalimantan: An Empirical Study Of 55 Districts, 2000–2012. *Indonesian Journal of Economics and Development* [*Jurnal Ekonomi Dan Pembangunan Indonesia*], 16(2), 81–104. https://doi.org/10.21002/jepi.v16i2.574

Pratomo, A. (2014). Analysis Of Potential Development Of Economic Growth Centers In Cilacap Regency [*Analisis Potensi Pengembangan Pusat Pertumbuhan Ekonomi Di Kabupaten Cilacap*]. *Economics Development Analysis Journal*, 3(1), 13–27. https://doi.org/10.15294/edaj.v3i1.3511

Putra, D., Rusda, D., & Aziz, A. (2020). Analysis Of Growth Poles And Hinterlands Determination In Central

Kalimantan Province. *Ecoplan*, 3(2), 105–118.   https://doi.org/10.20527 / ecoplan.v3i2.161

Restiatun. (2009). Identification Of Leading Sectors And Inequality Between Regencies/ Cities In The Province Of The Special Region Of Yogyakarta [*Identifikasi Sektor Unggulan Dan Ketimpangan Antar Kabupaten/ Kota Di Provinsi Daerah Istimewa Yogyakarta*]. *Journal of Economics & Development Studies (Yogyakarta Muhammadiyah University)* [*Jurnal Ekonomi & Studi Pembangunan (Universitas Muhammadiyah Yogyakarta)*], 10(1),   77–98. https://doi.org/10.18196/jesp.10.1.1279

Ridwannulloh, R., & Sunaryati, S. (2018). Determinants Of Indonesian Crude Palm Oil Export: Gravity Model Approach. *Journal of Economics & Development Studies* [*Jurnal Ekonomi & Studi Pembangunan*], 19(2), 134–141. https://doi.org/10.18196/jesp.19.2.5004

Rindayati, W., & Kristriana, O. (2018). Impact Analysis Of Non-Tariff Measures (NTM) On Indonesian Tuna Exports To Major Destination Countries. *Journal of Management and Agribusiness* [*Jurnal Manajemen Dan Agribisnis*], 15(2), 172–185. https://doi.org/https://doi.org/10.17358/jma.15.2.172

Rizal, R. (2018). Analysis Of 19 Trade Partners Of Manufacturing Trading In Indonesia: Application Of The Gravity Model. *Journal Of Economics Development Issues, 1*(1), 1–11. https://doi.org/10.33005/jedi.v1i1.6

Rizani, A. (2019). Analysis Of Leading Potential Sector For Bandung City Economic Development Planning [*Analisis Sektor Potensi Unggulan Guna Perencanaan Pembangunan Ekonomi Kota Bandung*]. *JIEB : Scientific Journal of Business Economics* [*JIEB : Jurnal Ilmiah Ekonomi Bisnis*],   5(3),   423–434.

http://ejournal.stiepancasetia.ac.id/index.php/jieb

Rizani, A. (2020). Analysis Of Leading Sectors Potential For Economic Development Planning In Malang City. *Journal Of Developing Economies, 5*(1), 21–40.

Rossi, U. (2020). Growth Poles And Growth Centers. *In International Encyclopedia Of Human Geography (Second Edi), 6,* 281–285. Elsevier. https://doi.org/10.1016/b978-0-08-102295-5.10077-0

Rusdarti, R., & Fafurida, F. (2016). Growth Pole Regional Development Strategy Through Utilization Of Local Potential [*Strategi Pengembangan Daerah* Growth Pole *Melalui Pemanfaatan Potensi Lokal*]. *Journal of Economics and Business* [*Jurnal Ekonomi Dan Bisnis*], *19*(3), 425–440. https://doi.org/10.24914/jeb.v19i3.467

Rustiadi, E. (2018). Planning And Development Region. *Indonesian Torch Library Foundation* [*Yayasan Pustaka Obor Indonesia*].

Saragih, J. (2015). Regional Planning And Agricultural-Based Local Economic Development. *Learning Library* [*Pustaka Belajar*].

Satrianto, A., & Sasongko, B. (2019). Determination Of The Same Leading Sectors In Blitar City. *Footsteps* [*Jejak*], *12*(2), 382–402. https://doi.org/10.15294/jejak.v12i2.22616

Sjafrizal. (2014). Regional Development Planning In The Autonomy Era (1st ed.). *Press Eagle* [*Rajawali Pers*].

Soebagyo, D., & Hascaryo, A. (2016). Leading Sectors 15 Countries-District In Central Java. *Journal Of Development Economics: Study Of Economics And Development Problems* [*Jurnal Ekonomi Pembangunan: Kajian Masalah Ekonomi Dan Pembangunan*], *17*(1), 74. https://doi.org/10.23917/jep.v17i1.2087

Tarigan, R. (2012). Regional Economics: Theory and Applications. *PT. Earth Literature* [*PT. Bumi Aksara*].

Apendix

Table 1. GRDP of Sukamara Regency

Economic Sector	2020	2019	2018	2017	2016	2015
Agriculture, Fisheries and Forestry	958,843.7	933,423.6	876,720.0	826,404.4	784,433.4	745,937.1
Mining and excavation	24,975.1	25,963.3	24,802.6	23,942.6	22,987.2	21,846.1
Processing industry	704,145.8	681,751.4	643,549.8	606,775.9	563,398.3	528,293.5
Electricity and Gas Supply	1,113.6	1,026.7	976.1	877.4	836.8	755.5
Water Supply, Waste Treatment, Waste and Recycling	373.7	383.1	358.0	319.2	301.6	290.8
Construction	248,885.4	261,937.0	245,275.7	235,331.7	222,590.5	211,555.7
Wholesale and Retail Trade; Car and Motorcycle Repair	358,203.1	350,662.8	332,545.9	307,781.5	287,407.7	268,951.0
Transportation and Warehousing	68,464.4	66,261.4	62,598.2	58,682.6	54,554.5	50,974.4
Provision of Accommodation and Food and Drink	29,862.6	30,727.9	29,013.0	27,056.6	25,470.6	23,951.0
Information and Communication	41,210.5	38,863.5	36,719.7	34,719.7	33,090.4	30,760.8
Financial Services and Insurance	53,450.9	51,276.4	49,308.7	47,323.0	45,261.0	42,059.1
Real Estate	38,275.0	38,060.6	36,499.0	34,158.7	31,904.1	29,556.7
Company Services	1,096.8	1,126.6	1,071.8	1,019.5	977.3	941.1
Government Administration, Defense and Social Security	180,793.2	178,798.3	168,563.6	157,499.8	148,232.8	138,437.8
Education Services	126,420.7	120,863.4	113,859.0	107,155.4	101,960.1	95,435.9
Health Services and Social Activities	50,420.0	49,235.1	46,886.7	44,643.1	41,718.7	38,627.2
Other Services	18,964.6	18,596.2	17,590.2	16,645.1	15,964.7	15,431.9
Total	2,905,499.10	2,848,957.30	2,686,338.00	2,530,336.20	2,381,089.70	2,243,805.60

Table 2. GRDP of Central Kalimantan Province

Economic Sector	2020	2019	2018	2017	2016	2015
Agriculture, Fisheries and Forestry	21,227.4	21,205.6	19,824.6	18,514.0	17,686.4	16,940.5
Mining and excavation	14,105.7	15,612.4	14,754.1	14,796.6	13,616.3	12,654.6
Processing industry	15,327.7	15,364.2	14,736.8	14,020.8	12,868.9	11,973.9
Electricity and Gas Supply	102.6	86.3	78.8	72.3	68.3	61.9
Water Supply, Waste Treatment, Waste and Recycling	84.0	79.1	74.5	68.6	68.5	65.1
Construction	7,598.4	8,549.3	7,994.9	7,863.0	7,459.5	6,897.5
Wholesale and Retail Trade; Car and Motorcycle Repair	11,823.0	11,941.5	11,241.1	10,108.4	9,347.8	8,639.0
Transportation and Warehousing	6,307.6	6,522.7	6,051.2	5,590.4	5,169.3	4,793.4
Provision of Accommodation and Food and Drink	1,635.3	1,708.3	1,608.7	1,504.0	1,425.3	1,318.6
Information and Communication	1,329.9	1,206.9	1,147.9	1,060.4	996.0	937.5
Financial Services and Insurance	3,463.9	3,153.0	2,972.3	2,910.2	2,673.1	2,492.0
Real Estate	1,968.9	1,956.9	1,874.9	1,726.6	1,656.3	1,599.6
Company Services	32.2	37.4	35.0	32.4	30.8	29.0
Government Administration, Defense and Social Security	6,562.9	5,877.0	5,514.1	5,140.2	4,940.0	4,872.8
Education Services	4,597.2	4,351.0	4,098.4	3,778.5	3,649.5	3,478.6
Health Services and Social Activities	1,898.7	1,732.9	1,646.8	1,516.8	1,435.8	1,380.3
Other Services	891.3	972.9	912.2	841.7	808.4	756.6
Total	98,956.70	100,357.40	94,566.30	89,544.90	83,900.20	78,890.90

Table 3. LQ Result

Economic Sector	2020	2019	2018	2017	2016
Agriculture, Fisheries and Forestry	1.54	1.55	1.56	1.58	1.56
Mining and excavation	0.06	0.06	0.06	0.06	0.06
Processing industry	1.56	1.56	1.54	1.53	1.54
Electricity and Gas Supply	0.37	0.42	0.44	0.43	0.43
Water Supply, Waste Treatment, Waste and Recycling	0.15	0.17	0.17	0.16	0.16
Construction	1.12	1.08	1.08	1.06	1.05
Wholesale and Retail Trade; Car and Motorcycle Repair	1.03	1.03	1.04	1.08	1.08
Transportation and Warehousing	0.37	0.36	0.36	0.37	0.37
Provision of Accommodation and Food and Drink	0.62	0.63	0.63	0.64	0.63

Economic Sector	2020	2019	2018	2017	2016
Information and Communication	1.06	1.13	1.13	1.16	1.17
Financial Services and Insurance	0.53	0.57	0.58	0.58	0.60
Real Estate	0.66	0.69	0.69	0.70	0.68
Company Services	1.16	1.06	1.08	1.11	1.12
Government Administration, Defense and Social Security	0.94	1.07	1.08	1.08	1.06
Education Services	0.94	0.98	0.98	1.00	0.98
Health Services and Social Activities	0.90	1.00	1.00	1.04	1.02
Other Services	0.72	0.67	0.68	0.70	0.70

Table 4. DLQ Result

Economic Sector	2020	2019	2018	2017	2016
Agriculture, Fisheries and Forestry	3.11	1.03	0.92	1.11	1.13
Mining and excavation	0.30	0.92	6.74	0.53	0.71
Processing industry	5.17	1.45	1.21	0.87	0.89
Electricity and Gas Supply	0.44	0.65	1.28	0.85	1.02
Water Supply, Waste Treatment, Waste and Recycling	-0.19	1.23	1.43	5.95	0.75
Construction	0.36	1.08	2.04	1.05	0.67
Wholesale and Retail Trade; Car and Motorcycle Repair	378.14	0.98	0.78	0.88	0.84
Transportation and Warehousing	-1.73	0.86	0.87	0.93	0.90
Provision of Accommodation and Food and Drink	0.51	1.06	1.08	1.10	0.80
Information and Communication	0.58	1.23	0.77	0.79	1.17
Financial Services and Insurance	0.44	0.78	1.74	0.56	1.03
Real Estate	0.89	1.08	0.86	1.53	1.94
Company Services	0.12	0.86	0.71	0.86	0.66
Government Administration, Defense and Social Security	0.15	1.03	1.02	1.43	3.35
Education Services	0.77	1.10	0.80	1.34	1.31
Health Services and Social Activities	0.30	1.06	0.66	1.20	1.77
Other Services	-0.37	0.97	0.75	1.02	0.56

Table 5. RPr Result

Economic Sector	2020	2019	2018	2017	2016
Agriculture, Fisheries and Forestry	-0.07	1.14	1.26	0.70	0.69
Mining and excavation	6.91	0.95	-0.05	1.29	1.20
Processing industry	0.17	0.70	0.91	1.33	1.18
Electricity and Gas Supply	-13.53	1.55	1.60	0.87	1.63
Water Supply, Waste Treatment, Waste and Recycling	-4.44	1.01	1.53	0.02	0.82
Construction	7.97	1.13	0.30	0.80	1.28
Wholesale and Retail Trade; Car and Motorcycle Repair	0.71	1.02	2.00	1.21	1.29
Transportation and Warehousing	2.36	1.27	1.47	1.21	1.24
Provision of Accommodation and Food and Drink	3.06	1.01	1.24	0.82	1.27
Information and Communication	-7.30	0.84	1.47	0.96	0.98
Financial Services and Insurance	-7.06	0.99	0.38	1.32	1.14
Real Estate	-0.44	0.71	1.53	0.63	0.56
Company Services	9.96	1.12	1.43	0.77	0.98
Government Administration, Defense and Social Security	-8.36	1.07	1.30	0.60	0.22
Education Services	-4.05	1.01	1.51	0.53	0.77
Health Services and Social Activities	-6.86	0.85	1.53	0.84	0.63
Other Services	6.01	1.09	1.49	0.61	1.08

Table 6. RPs Result

Economic Sector	2020	2019	2018	2017	2016
Agriculture, Fisheries and Forestry	26.49	0.93	0.86	1.14	1.17
Mining and excavation	0.39	0.80	-12.51	0.48	0.69
Processing industry	-13.83	1.39	1.19	0.86	0.89
Electricity and Gas Supply	0.45	0.54	1.25	0.83	1.04
Water Supply, Waste Treatment, Waste and Recycling	-0.40	1.14	1.41	39.97	0.71
Construction	0.45	0.98	2.52	1.06	0.64
Wholesale and Retail Trade; Car and Motorcycle Repair	-2.17	0.87	0.72	0.87	0.84
Transportation and Warehousing	-1.01	0.75	0.81	0.93	0.90
Provision of Accommodation and Food and Drink	0.66	0.95	1.04	1.13	0.78
Information and Communication	0.59	1.14	0.70	0.76	1.21

Economic Sector	2020	2019	2018	2017	2016
Financial Services and Insurance	0.43	0.66	1.97	0.51	1.05
Real Estate	0.92	0.98	0.80	1.66	2.24
Company Services	0.19	0.75	0.64	0.83	0.62
Government Administration, Defense and Social Security	0.10	0.92	0.97	1.54	5.13
Education Services	0.81	1.00	0.74	1.44	1.39
Health Services and Social Activities	0.25	0.96	0.59	1.24	1.99
Other Services	-0.24	0.86	0.68	1.03	0.50

Table 7. Sectoral Contribution Percentage of Sukamara Regency

Economic Sector	2020	2019	2018	2017	2016
Agriculture, Fisheries and Forestry	33.00	32.76	32.64	32.66	32.94
Mining and excavation	0.86	0.91	0.92	0.95	0.97
Processing industry	24.23	23.93	23.96	23.98	23.66
Electricity and Gas Supply	0.04	0.04	0.04	0.03	0.04
Water Supply, Waste Treatment, Waste and Recycling	0.01	0.01	0.01	0.01	0.01
Construction	8.57	9.19	9.13	9.30	9.35
Wholesale and Retail Trade; Car and Motorcycle Repair	12.33	12.31	12.38	12.16	12.07
Transportation and Warehousing	2.36	2.33	2.33	2.32	2.29
Provision of Accommodation and Food and Drink	1.03	1.08	1.08	1.07	1.07
Information and Communication	1.42	1.36	1.37	1.37	1.39
Financial Services and Insurance	1.84	1.80	1.84	1.87	1.90
Real Estate	1.32	1.34	1.36	1.35	1.34
Company Services	0.04	0.04	0.04	0.04	0.04
Government Administration, Defense and Social Security	6.22	6.28	6.27	6.22	6.23
Education Services	4.35	4.24	4.24	4.23	4.28
Health Services and Social Activities	1.74	1.73	1.75	1.76	1.75
Other Services	0.65	0.65	0.65	0.66	0.67

Table 8. Sectoral Economic Growth Percentage of Sukamara Regency

Economic Sector	2020	2019	2018	2017	2016
Agriculture, Fisheries and Forestry	2.72	6.47	6.09	5.35	5.16
Mining and excavation	-3.81	4.68	3.59	4.16	5.22
Processing industry	3.28	5.94	6.06	7.70	6.64
Electricity and Gas Supply	8.46	5.18	11.25	4.85	10.76
Water Supply, Waste Treatment, Waste and Recycling	-2.45	7.01	12.16	5.84	3.71
Construction	-4.98	6.79	4.23	5.72	5.22
Wholesale and Retail Trade; Car and Motorcycle Repair	2.15	5.45	8.05	7.09	6.86
Transportation and Warehousing	3.32	5.85	6.67	7.57	7.02
Provision of Accommodation and Food and Drink	-2.82	5.91	7.23	6.23	6.34
Information and Communication	6.04	5.84	5.76	4.92	7.57
Financial Services and Insurance	4.24	3.99	4.20	4.56	7.61
Real Estate	0.56	4.28	6.85	7.07	7.94
Company Services	-2.65	5.11	5.13	4.32	3.85
Government Administration, Defense and Social Security	1.12	6.07	7.02	6.25	7.08
Education Services	4.60	6.15	6.26	5.10	6.84
Health Services and Social Activities	2.41	5.01	5.03	7.01	8.00
Other Services	1.98	5.72	5.68	4.26	3.45

Table 9. Economimc Growth Component of Sukamara Regency 2015-2016

Economic Sector	Yt/Yo	(Yt/Yo)-1	Yit/Yiᵒ	Yi/Yiᵒ	Yi/Yiᵒ-Yit/Yiᵒ	Yit/Yiᵒ-Yt/Yo	DS Yi (Yi/Yiᵒ-Yit/Yiᵒ)	PS Yi (Yit/Yiᵒ-Yt/Yo)
Agriculture, Fisheries and Forestry		0.06	1.04	1.05	0.01	-0.02	5,652,258,626	-14,520,391,217
Mining And Excavation		0.06	1.08	1.05	-0.02	0.01	-519,117,974	273,065,986
Processing Industry		0.06	1.07	1.07	-0.01	0.01	-4,382,976,121	5,942,961,326
Electricity And Gas Supply		0.06	1.10	1.11	0.00	0.04	3,186,914	30,141,442
Water Supply, Waste Treatment, Waste and Recycling		0.06	1.05	1.04	-0.02	-0.01	-4,387,711	-3,277,086
Construction		0.06	1.08	1.05	-0.03	0.02	-6,202,503,864	3,804,246,718
Wholesale And Retail Trade; Car and Motorcycle Repair		0.06	1.08	1.07	-0.01	0.02	-3,609,797,141	4,989,036,441
Transportation And Warehousing		0.06	1.08	1.07	-0.01	0.01	-417,329,165	760,730,612
Provision Of Accommodation and Food and Drink	1.06	0.06	1.08	1.06	-0.02	0.02	-418,494,722	417,288,845
Information And Communication		0.06	1.06	1.08	0.01	0.00	410,126,080	-33,730,764
Financial Services and Insurance		0.06	1.07	1.08	0.00	0.01	145,357,861	385,934,380
Real Estate		0.06	1.04	1.08	0.04	-0.03	1,299,722,524	-829,071,013
Company Services		0.06	1.06	1.04	-0.02	0.00	-22,213,103	-1,343,500
Government Administration, Defense and Social Security		0.06	1.01	1.07	0.06	-0.05	7,885,826,597	-6,881,149,328
Education Services		0.06	1.05	1.07	0.02	-0.01	1,835,533,493	-1,371,183,918
Health Services and Social Activities		0.06	1.04	1.08	0.04	-0.02	1,538,352,423	-899,546,371
Other Services		0.06	1.07	1.03	-0.03	0.00	-523,732,408	76,659,994
Total							2,669,812,310	-7,859,627,452

Table 10. Economimc Growth Component of Sukamara Regency 2016-2017

Economic Sector	Yt/Yo	$(Yt/Yo)-1$	Yit/Yi^o	Yi/Yi^o	Yi/Yi^o- Yit/Yi^o	Yit/Yi^o- Yt/Yo	DS $Yi (Yi/Yi^o-$ $Yit/Yi^o)$	PS $Yi (Yit/Yi^o-$ $Yt/Yo)$
Agriculture, Fisheries and Forestry		0.07	1.05	1.05	0.01	-0.02	5,264,995,282	-16,069,688,463
Mining And Excavation		0.07	1.09	1.04	-0.05	0.02	-1,037,196,532	446,046,609
Processing Industry		0.07	1.09	1.08	-0.01	0.02	-7,052,390,269	12,525,260,792
Electricity And Gas Supply		0.07	1.06	1.05	-0.01	-0.01	-8,407,321	-7,291,532
Water Supply, Waste Treatment, Waste and Recycling		0.07	1.00	1.06	0.06	-0.07	17,159,708	-19,850,977
Construction		0.07	1.05	1.06	0.00	-0.01	700,813,010	-2,935,222,071
Wholesale And Retail Trade; Car and Motorcycle Repair		0.07	1.08	1.07	-0.01	0.01	-3,011,627,226	4,048,998,419
Transportation And Warehousing		0.07	1.08	1.08	-0.01	0.01	-316,002,673	773,744,484
Provision Of Accommodation and Food and Drink		0.07	1.06	1.06	0.01	-0.01	179,603,999	-307,233,953
Information And Communication		0.07	1.06	1.05	-0.02	0.00	-510,280,080	-86,700,440
Financial Services and Insurance		0.07	1.09	1.05	-0.04	0.02	-1,952,583,480	969,480,289
Real Estate		0.07	1.04	1.07	0.03	-0.02	900,462,326	-792,330,073
Company Services		0.07	1.05	1.04	-0.01	-0.02	-8,568,831	-14,982,684
Government Administration, Defense and Social Security		0.07	1.04	1.06	0.02	-0.03	3,259,670,737	-3,965,587,204
Education Services		0.07	1.04	1.05	0.02	-0.03	1,591,284,957	-3,255,732,329
Health Services and Social Activities		0.07	1.06	1.07	0.01	-0.01	570,858,629	-453,240,328
Other Services		0.07	1.04	1.04	0.00	-0.03	22,774,431	-416,459,381
Total							-1,389,433,333	-9,560,788,840

Table 11. Economimc Growth Component of Sukamara Regency 2017-2018

Economic Sector	Yt/Yo	(Yt/Yo)-1	Yit/Yiº	Yi/Yiº	Yi/Yiº-Yit/Yiº	Yit/Yiº-Yt/Yo	DS Yi (Yi/Yiº-Yit/Yiº)	PS Yi (Yit/Yiº-Yt/Yo)
Agriculture, Fisheries and Forestry		0.06	1.07	1.06	-0.01	0.01	-8,185,296,977	12,158,703,797
Mining And Excavation		0.06	1.00	1.04	0.04	-0.06	928,769,886	-1,411,396,565
Processing Industry		0.06	1.05	1.06	0.01	-0.01	5,787,683,493	-3,039,892,230
Electricity And Gas Supply		0.06	1.09	1.11	0.02	0.03	19,818,949	29,679,183
Water Supply, Waste Treatment, Waste and Recycling		0.06	1.09	1.12	0.04	0.03	11,346,939	9,553,316
Construction		0.06	1.02	1.04	0.03	-0.04	5,996,365,353	-9,249,036,502
Wholesale And Retail Trade; Car and Motorcycle Repair		0.06	1.11	1.08	-0.03	0.06	-9,724,154,573	17,229,123,561
Transportation And Warehousing		0.06	1.08	1.07	-0.02	0.03	-921,431,712	1,546,293,684
Provision Of Accommodation and Food and Drink	1.06	0.06	1.07	1.07	0.00	0.01	72,872,061	366,277,808
Information And Communication		0.06	1.08	1.06	-0.02	0.03	-864,931,865	917,958,877
Financial Services and Insurance		0.06	1.02	1.04	0.02	-0.03	975,886,826	-1,643,913,751
Real Estate		0.06	1.09	1.07	-0.02	0.03	-593,636,760	1,018,422,910
Company Services		0.06	1.08	1.05	-0.03	0.02	-29,511,728	24,641,333
Government Administration, Defense and Social Security		0.06	1.07	1.07	0.00	0.02	-392,792,199	2,624,492,373
Education Services		0.06	1.08	1.06	-0.02	0.03	-2,368,521,863	3,063,179,695
Health Services and Social Activities		0.06	1.09	1.05	-0.04	0.03	-1,582,615,058	1,322,768,604
Other Services		0.06	1.08	1.06	-0.03	0.03	-449,077,914	460,772,380
Total							-11,319,227,143	25,427,628,472

Table 12. Economimc Growth Component of Sukamara Regency 2018-2019

Economic Sector	Yt/Yo	(Yt/Yo)-1	Yit/Yiº	Yi/Yiº	Yi/Yiº-Yit/Yiº	Yit/Yiº-Yt/Yo	DS Yi (Yi/Yiº-Yit/Yiº)	PS Yi (Yit/Yiº-Yt/Yo)
Agriculture, Fisheries and Forestry		0.06	1.07	1.06	0.00	0.01	-4,369,527,327	7,384,094,426
Mining and excavation		0.06	1.06	1.05	-0.01	0.00	-282,158,025	-76,016,425
Processing industry		0.06	1.04	1.06	0.02	-0.02	10,803,308,341	-12,011,743,912
Electricity and Gas Supply		0.06	1.10	1.05	-0.04	0.03	-42,302,919	33,128,002
Water Supply, Waste Treatment, Waste and Recycling		0.06	1.06	1.07	0.01	0.00	2,995,302	181,309
Construction		0.06	1.07	1.07	0.00	0.01	-347,148,896	1,988,128,695
Wholesale and Retail Trade; Car and Motorcycle Repair		0.06	1.06	1.05	-0.01	0.00	-2,603,060,534	355,342,679
Transportation and Warehousing		0.06	1.08	1.06	-0.02	0.02	-1,214,353,427	1,044,132,473
Provision of Accommodation and Food and Drink	1.06	0.06	1.06	1.06	0.00	0.00	-81,391,913	19,578,810
Information and Communication		0.06	1.05	1.06	0.01	-0.01	256,473,316	-361,333,301
Financial Services and Insurance		0.06	1.06	1.04	-0.02	0.00	-1,030,006,184	-21,885,495
Real Estate		0.06	1.04	1.04	0.00	-0.02	-34,708,070	-638,836,574
Company Services		0.06	1.07	1.05	-0.02	0.01	-18,694,857	7,859,414
Government Administration, Defense and Social Security		0.06	1.07	1.06	-0.01	0.00	-858,992,613	771,107,676
Education Services		0.06	1.06	1.06	0.00	0.00	-13,163,781	45,007,438
Health Services and Social Activities		0.06	1.05	1.05	0.00	-0.01	-102,987,461	-419,884,529
Other Services		0.06	1.07	1.06	-0.01	0.01	-164,494,563	93,296,795
Total							-100,213,609	-1,787,842,519

Table 13. Economimc Growth Component of Sukamara Regency 2019-2020

Economic Sector	Yt/Yo	(Yt/Yo)-1	Yit/Yiº	Yi/Yiº	Yi/Yiº-Yit/Yiº	Yit/Yiº-Yt/Yo	DS Yi (Yi/Yiº-Yit/Yiº)	PS Yi (Yit/Yiº-Yt/Yo)
Agriculture, Fisheries and Forestry		-0.01	1.00	1.03	0.03	0.01	24,460,512,227	13,987,490,414
Mining and excavation		-0.01	0.90	0.96	0.06	-0.08	1,517,430,403	-2,143,257,581
Processing industry		-0.01	1.00	1.03	0.04	0.01	24,014,004,412	7,895,679,822
Electricity and Gas Supply		-0.01	1.19	1.08	-0.10	0.20	-107,019,003	208,248,776
Water Supply, Waste Treatment, Waste and Recycling		-0.01	1.06	0.98	-0.09	0.08	-33,131,858	29,078,830
Construction		-0.01	0.89	0.95	0.06	-0.10	16,082,468,672	-25,478,183,248
Wholesale and Retail Trade; Car and Motorcycle Repair		-0.01	0.99	1.02	0.03	0.00	11,020,058,975	1,414,482,844
Transportation and Warehousing		-0.01	0.97	1.03	0.07	-0.02	4,388,111,555	-1,260,293,425
Provision of Accommodation and Food and Drink	0.99	-0.01	0.96	0.97	0.01	-0.03	447,781,250	-884,208,347
Information and Communication		-0.01	1.10	1.06	-0.04	0.12	-1,613,734,526	4,503,156,953
Financial Services and Insurance		-0.01	1.10	1.04	-0.06	0.11	-2,881,583,971	5,771,754,698
Real Estate		-0.01	1.01	1.01	0.00	0.02	-18,993,224	764,609,481
Company Services		-0.01	0.86	0.97	0.11	-0.13	126,839,572	-140,915,484
Government Administration, Defense and Social Security		-0.01	1.12	1.01	-0.11	0.13	-18,872,507,516	23,362,916,355
Education Services		-0.01	1.06	1.05	-0.01	0.07	-1,281,718,405	8,525,923,052
Health Services and Social Activities		-0.01	1.10	1.02	-0.07	0.11	-3,525,804,357	5,397,884,421
Other Services		-0.01	0.92	1.02	0.10	-0.07	1,928,118,286	-1,300,168,941
Total							55,650,832,492	40,654,198,621