Conference Paper

The Analysis of Excellent Economic Sector in Regional Economic Building in Kediri City 2012–2015

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Abstract

The purpose of this study was to determine (1) the economic sectors that excel in any category of contribution and growth; (2) the sector that can create jobs to the maximum; (3) The most efficient sectors to be developed; and (4) the growth pattern of economic sectors in the area of Kediri. This type of research is quantitative descriptive. with the calculation of secondary data for the period 2012-2015. The analytical method used is the analysis of Location Quotient (LQ), Growth Ratio Model (GRM), Elasticity Employment, ICOR and Typology Klassen. The results showed that (1) the manufacturing industry is the only comparative advantage of Kediri based on criteria of contribution, while the dominant sector is based on growth the is trade, hotels and restaurants; transport and communications; and the services sector; (2) sectors with potential to absorb labor maximum is agriculture, livestock, forestry and fisheries; the construction sector; trade, hotels and restaurants; and transport and communications; (3) an efficient sector to be developed in the town of Kediri, namely agriculture, livestock, forestry and fisheries; transport and communications; the financial sector, real estate and business services; and the services sector; (4) based on (3) an efficient sector to be developed in the town of Kediri, namely agriculture, livestock, forestry and fisheries; transport and communications; the financial sector, real estate and business services; and the services sector; (4) based on the growth pattern of each sector there is no sector that is advancing and growing rapidly or quadrant I, the sector that includes quadrant II is a sector forward but stressed that is manufacturing sector, quadrant III potential sectors there are mining and quarrying, trade, hotels and restaurants, and the services sector, while the five other sectors is relatively lagging sector.

Keywords: Leading Economic Potential, Economic Development

In the era of regional autonomy as it is today, one of the objectives of Regional Government is to realize the governance of local government in order to be better, democratic

and sustainable regional development in order to improve the living standard and prosperity of the society which is more just and equitable. In realizing sustainable development, planning is required by utilizing the existing potentials in the region as well as natural resources, human resources, capital resources and expertise or entrepreneurship, and for the utilization of such potential development planning policy is required. The potential of the region is a capital for the government to be developed so as to assist in the economic development of the area. With development planning through a sectoral approach that is determining sectors that have excellent potentials in the area, it will be able to know the strengths and weaknesses of regions in the development of the economy. Kediri is one of 38 regencies/cities in East Java province with an area of 63.40 km2.

Kediri is one of the five cities contributed the largest contribution in the formation of GRDP East Java Province, with an added value over the prevailing price of Rp.97, 44 trillion or 5.75 percent. The function of Kediri as a tertiary service center is industry, trade, government and higher education and the existence of economic base that is the biggest tobacco processing industry in Indonesia.

Economic development of Kediri during the period 2012-2015 the formation of Gross Regional Domestic Product is dominated by a contribution from cigarette industry by 70%. Planning economic development strategy by determining the leading sector which then optimizes the empowerment which will be used as a development priority in reducing the dominance of the processing industry sector and create economic independence of Kediri.

1. METHOD

This research uses the descriptive quantitative method. The quantitative approach in question is the calculation of secondary data, while the descriptive approach is a description of the results of calculations performed. The total population in this study is used as a sample of the Real GRDP, Non-Facilities domestic investigation, investment data, employment data of Kota Kediri and Real GRDP of East Java as reference area in the period 2011-2015.

The data used in this study is secondary data obtained from documentation by the Central Bureau of Statistics of Kediri, Central Statistics Agency of East Java Province, the Office of Investment and other related agencies. The secondary data in this study will be processed and calculated using Location Quotient (LQ), Growth Ratio (GRM), Job Opportunity Elasticity, ICOR and Klassen's Typology.

In this research using the quantitative method with Microsoft excel program, that is:

1.1. Location Quotient (LQ)

Location Quotient is used to find out how big the level of specialization of the sectors or leading sectors or the effort to measure the concentration of an activity (industry) in a region by comparing its role in the economy of Kediri City with the role of activities or similar industries in the regional economy East Java Province. The formula used is:

$$LQ = \frac{V_1^R/V^R}{V_1/V}$$

Note:

    V1R = Total GRDP of a district / municipal sector

    VR = Total GRDP of all district / city sectors

    V1 = Total GRDP of a sector at the provincial level

    V = Total GRDP of all sectors at the provincial level

If LQ> 1 then it is a base sector where the level of specialization in Kediri City is higher than the level of East Java Province. LQ <1 is not a base sector where the level of specialization in Kediri is lower than in East Java, whereas if LQ = 1 means the level of specialization in Kediri is the same as at East Java (Adisasmita, 2005: 30).

1.2. Growth Ratio Model (GRM)

The growth ratio model is calculated by comparing the growth of an activity within the reference region and study area to see a description of potential economic activity or sector based on both external and internal growth criteria. The GRM approach is divided into two namely (Yusuf, 1999 in [9]):

a. Growth Ratio of Reference Areas is the ratio between the total growth rate of activity i in the reference region with the total growth rate of activity (GRDP) reference region.

$$RP_r = \frac{\Delta E_i R/E_i R(t)}{\Delta E R/E R(t)}$$

where:

a. Δ EiR = Change of activity income i in reference area

b. EiR = Revenue activity i beginning of research period in reference area

c. Δ ER = Change of GRDP in reference area

d. ER = GRDP at the beginning of the study in the reference area

Growth Ratio of Study Areas is the ratio between the growth rate of activity of study area and growth rate of activity of reference region.

$$RP_S = \frac{\Delta Eij/Eij(t)}{\Delta EiR/EiR(t)}$$

where:

Δ Eij = Change of income of activity i in study area

Eij = Income activity i at the beginning of the study period in the study area

Δ EiR = Change of activity income i in reference area

EiR = activity income i at the beginning of the research period in the reference area

If the value of RPR or RPS > 1 then RPR or RPS is positive (+) and if RPR or RPS <1 then RPR or RPS is said negative (-). RPR (+) indicates that the growth of a sector in the reference region is higher than the total GDP growth of the reference region and vice versa if RPR (-) then the growth of a sector in the reference region is smaller than the total GDP of the reference region. While RPS (+) means that sector growth at the study area level is higher than the same sector growth in the reference region, whereas RPS (-) means the growth of a sector at the lower study area level compared to the reference region. GRM analysis results can be classified into 4 ie:

1. Classification 1, the value of RPR (+) and RPS (+) means that the activity at the provincial level as well as at the city/county level has a prominent growth. This activity is further called the dominant growth.

2. Classification 2, RPR (+) and RPS (-) means that the activity at the provincial level has a prominent growth, but at the city/regency level has not been prominent.

3. Classification 3, RPR (-) and RPS (+) means the growth of such activities at the provincial level has not been prominent while at the city/county level including prominent.

4. Classification 4, RPR (-) and RPS (-) means those activities at both the provincial and city/district levels have low growth.

1.3. Elasticity of Employment Opportunities

The elasticity of employment is the ratio of the growth rate of employment to the rate of economic growth / Gross Domestic Product (GDP) [17].

E = (Growth Rate of Employment Opportunity) / (National Income Growth Rate)

E = (Δ Ni / Ni) / (Δ Yi / Yi) = (% Δ Ni) / (% Δ Yi)

Where:

E = employment elasticity

N = number of job opportunities

Y = National income / GDP

i = large and medium industries

Criteria and sensitivity of employment elasticity in relation to the ability to absorb labor can be explained by the following criteria [17]:

a. E = 1 (unitary) means that a change in production value of 1% resulted in a change in employment of 1% or a percentage change in the value of production as much as the percentage change in employment.

b. E> 1 (elasticity), meaning a change in production value of 1% will result in a change in employment of more than 1%.

E <1 (inelasticity), meaning a change in production value of 1% will result in a change in employment of less than 1%.

1.4. Incremental Capital Output Ratio (ICOR)

The concept of ICOR essentially indicates a relationship between increasing the stock of production capacity and the ability of society to produce output. Simply stated ICOR is expressed as the ratio between capital increase (investment) to additional output or notated as follows (Setiyana, 2013):

ICOR = Δ K / Δ Y

Where:

Δ K = investment or additional production capacity

Δ Y = output growth

Efficiency using the ICOR concept shows that the greater the ICOR value indicates the more inefficient use of investment in development. This is because the greater the value of ICOR means the investment required is very large to produce a certain output (Gillis et al, in [14])

1.5. Klassen's Typology

Klassen's typology is used to see the general picture of growth pattern and structure of each sector of the economy of Kediri. Klassen typology analysis in this study is a combination of LQ and GRM analysis results.

TABLE 1: Classification of Economic Growth Patterns by Klassen's Typology.

Quadrant I	Quadrant II
Advanced Sector (RPs > RPr, LQ > 1)	Depressed Advanced Sector (RPs < RPr, LQ > 1)
Quadrant III	Quadrant IV
Potential Sector (RPs > RPr, LQ < 1)	Disadvantaged Sector (RPs < RPr, LQ < 1)

Klassen's typology with sectoral approach yields four sector classifications with different characteristics as follows (Erika, 2013: 67):

a. The advanced and growing sectors (Quadrant I) have a growth rate of GRDP in the study are higher than the same sector growth rate of GRDP in the reference area and are the base sector.

b. The advanced but depressed sector (Quadrant II) is the base sector and has a growth rate towards GRDP in the lower study area bumping the same sector growth rate in the reference area. Sectors in this category are said to be saturated sectors.

c. Potential sectors or still able to expand rapidly (Quadrant III) have higher growth rates against GRDP in the study area than the same sector growth rate in the reference area but not the base sector.

d. The relative sectors lagging (Quadrant IV) are occupied by sectors whose growth rate is lower than reference area and not a base sector.

2. FINDINGS AND DISCUSSIONS

Kediri is one of 38 regencies/cities in East Java Province. Geographically, Kediri City is located at 7 ° 45'-7 ° 55 'South Latitude and 111 ° 05'-112 ° 03' East Longitude and adjacent to Kediri Regency around it. The town of Kediri includes a plateau because it has an average height of 67 m above sea level. The area of Kediri City is divided by Brantas River which flows from South to North into two areas, namely the western region of the river and East river. The total area of Kediri City about 63.40 km2, is divided

into three districts of Mojoroto District covering an area of 24.60 km2 consisting of 14 villages, Township District of 14.90 km2 consisting of 17 sub-districts, and District Pesantren area of 23.90 km2 consists of 15 Kelurahan.

The field of employment is very important in the development process because it is closely related to unemployment and poverty. The number of population aged 15 years and over the city of Kediri in 2015 who entered the workforce as many as 142 628 people, not the army as many as 74.460 people. A male work seeker of 912 people and 783 female job seekers. Of this amount, only 51.7 percent are absorbed in various business sectors.

TABLE 2: Number of Job Seekers, Placements, and Demand by Gender, 2015.

Description	2014	2015		
		Male	Female	Quantity
Job seekers	1.405	912	783	1.695
Placements	757	335	541	876
Demand/Job vacancy	1.126	817	802	1.619
Ratio of Placement to Vacancies	67,2	41,0	67,5	54,1
Source: BPS Kota Kediri				

2.1. Economic Condition of Kediri

In the era of 2012-2015, the economic structure of Kediri in general still seems to be dominated by the category of the processing industry. The processing industry in general during the last 4 years its contribution has increased. In sequence, the 3 largest roles of categories in GDP of Kediri City during the period 2012-2015 on the basis of current pricing of the first order of processing industry sector, second in the sectors of trade, hotels and restaurants and third order is the transportation and communications sector.

2.2. Human Development Index

Human development status in Kota Kediri from year to year has increased, this is indicated by the number of Human Development Index (HDI) Kediri City which has continued to increase during the last four years. Taking into account the components of

the index, the highest contribution was contributed by the Health Index which reached 0.82. The second highest was contributed to the Education Index of 0.73, and the third was the Revenue Index with an index size of 0.72.

TABLE 3: Indicators of Development of Human Development Index of Kediri City 2012-2015.

Year	Indikator							
	Life expectancy (age)	School Duration Expectancy (%)	Average School Duration (Year)	Real Adapted F & B Expenditure (000)	Index of Health	Index of Education	Indeks PPP	IPM
2012	73,49	13,09	9,49	10.432	0,82	0,68	0,71	73,66
2013	73,51	13,27	9,57	10.670	0,82	0,69	0,72	74,18
2014	73,52	13,52	9,7	10.702	0,82	0,7	0,72	74,62
2015	73,62	14,3	9,88	10.733	0,82	0,73	0,72	75,67

2.3. Analysis of Excellent Sector

2.3.1. Analysis of Location Quotient

The results of the analysis show that based on the creation of added value or contribution of each sector in the economy since 2012-2015 Kediri City has not changed significantly, because there is only one sector that is the base sector in Kediri, namely processing industry. The manufacturing sector is the base sector with an average LQ of 2012-2015 of 2.74. While the other eight economic sectors is a non-base sector because the average LQ value is less than 1. Non-base activities are activities that provide goods and services needed by the people within the boundaries of the economy concerned, the scope of production and marketing is local. It is expected that with the increasing number of base activities within a region will increase the revenue stream into the region concerned, which further increases the demand for goods or services within the region so that in the end it will increase the volume of non-base activities. Conversely, the decrease in base activity will result in reduced revenue flowing into a region that will lead to a decrease in product demand from non-base activities.

2.3.2. Analysis of Growth Ratio Model (GRM)

Based on the analysis of the Growth Ratio Model (GRM) there is only one sector which is the leading sector ie sector in classification 1 with RPr and positive RPs ie

transportation and communication sector. This indicates that the transportation and communications sector has a high growth both in the city of Kediri and at the level of East Java Province. Transportation and communications sector is the dominant sector of growth where seen from the average rate of growth rate for the period 2012-2015 is the highest growth of the sector compared with other sectors in the City of Kediri that is equal to 8.52 percent and at the level of East Java Province including the second-highest growth after the financial, real estate and corporate services sector at 7.91 percent.

2.4. Analisis Sektor Penyerap Tenaga Kerja Maksimal

Based on the analysis, it is known that the leading sectors that are able to absorb the maximum workforce are the sectors included in the elasticity classification of agriculture, livestock, forestry and fishery sectors; mining and quarrying sectors; construction sector; trade, hotel, and restaurant sector; and the transport and communications sector. Of the five sectors in the elasticity classification of the agricultural sector, livestock, forestry, and fishery have the highest elasticity value of 20.59. This elasticity number has the understanding that if the average value of GRDP rises more than 1 percent then the labor absorbed in the sector amounted to 20.59 percent. The growth rate for the sector in 2015 experienced an increase of 2.52 percent from the previous year of 1.77 percent so that employment also increased in 2015 with 4,995 workers from just 2,982 workers.

The average elasticity of the mining and quarrying sector is 9.38 with the understanding that an average increase of GRDP of more than 1 percent will absorb labor by 9.38 percent, although it is known that growth and contribution of the sector is low and can be said not there is a change but if the sector can be processed and developed it is predicted to absorb high workforce. The average elasticity for the construction sector is 3.78, which means that every average value of GRDP is more than 1 percent, the employment is 3.78 percent. The average elasticity of 2012-2015 for trade, hotel, and restaurant sector is 1.38, which means that if the average GRDP rises more than 1 percent, the absorbed workforce is 1.38 percent. Furthermore, the average elasticity of the transport and communications sector is 1.28 which means that the average increase of GRDP value is more than 1 percent then the absorbed labor is 1.28 percent.

2.5. Analysis of Efficient Sector

Based on the results of the analysis, the sector that excelled in the efficiency of invest-ment needs with ICOR closest to 0 there is four sectors, namely agriculture, livestock, forestry and fishery sectors; the transport and communications sector; financial sector, real estate and corporate services; and the services sector. The highest efficiency sector is the financial sector, real estate, and corporate services with an ICOR value of 0.04 which means that only 0.04 percent of investment is required to increase output by 1 percent. Transport and communications sector has an ICOR of 0.15 can be explained that it takes 0.15 percent investment to raise output per unit. The order of the three efficient sectors is the services sector with an ICOR value of 0.35 with the understanding that to raise production by 1 percent requires an investment of 0.35 percent. The last sector with ICOR value close to 0 is agriculture, livestock, forestry and fishery sector with ICOR 0.47 where to increase output per unit it requires 0.47 percent investment.

2.6. Analysis of Development Pattern

Klassen's typology analysis obtained in this study is by combining the results of LQ analysis with GRM where the growth pattern of economic sectors viewed based on contribution criteria and growth rate, then the result will be obtained with the following categories:

1. Sectors that are progressing and growing rapidly in this category are the sector which is the base sector and has a higher growth rate in Kediri compared with the same growth rate of the sector in East Java Province level. From the calculation, it is known that Kediri does not have developed and growing sectors (Quadrant I). This is because in the City of Kediri there is no sector that has a performance rate of economic growth and a larger share.

2. Sectors included in the advanced but depressed category (Quadrant II) in Kota Kediri is only one sector which is the manufacturing sector, the base sector but the growth rate is lower when compared with the same sector at the level of East Java Province. The manufacturing industry is an advanced but depressed sector because the sector has a large market share but the performance of growth rate in Kediri is lower than in East Java Province. It can be seen from the contribution of regional GDP of Kediri period 2012-2015, the figure always increases with the average of 80.19 percent, but the growth rate continues to fluctuate with the

average growth rate of 4.61 percent. Unlike the contribution rate of the manufacturing sector in East Java, which continued to decline during the same period where the average was only 29.27 percent but the average growth rate was higher than in Kediri at 6.42 percent.

3. Sectors that fall into the category of potential sectors or sectors that can still thrive are mining and quarrying sectors; trade, hotel, and restaurant sector; and service sectors where the sector has a higher growth ratio in Kediri compared to East Java Province level and the sector is not a base sector. Sectors in this category can be said that the sector has a high growth rate performance in Kediri compared to nationally, although the market share in the region is relatively small.

4. Quadrant IV is a relatively lagging sector. Based on the analysis result, there are 5 economic sectors in Kediri City which are relatively lagging sector ie agriculture, forestry and fishery sector; electricity, gas and water supply sectors; construction sector; the transport and communications sector; and the financial sector, real estate, and corporate services. The sectors in this category are said to be lagging behind in the performance of growth rate and contribution is low both in Kediri and East Java.

3. CONCLUSIONS AND SUGGESTIONS

The determination of the leading sector as a center of growth is not enough just by looking at the contribution and the rate of growth, but the sector that is said to be superior must also have the ability to create new jobs and also efficient to be developed where with the same additional investment but the sector can produce more output and in a short time. At the beginning, it is well known that the salient sector in the formation of Kediri Regional GDP is the processing industry sector, but it is limited to the contribution criteria only and for the growth rate, the ability to absorb labor and the investment efficiency of the sector is still low. Sectors that excel in the criteria of growth rate are trade, hotel, and restaurant sector; the transport and communications sector; and the services sector. Economic sectors with maximum employment potential ie agricultural, livestock, forestry and fishery sectors; mining and quarrying sectors; construction sector; trade, hotel, and restaurant sector; and the transport and communications sector.

There are four efficient sectors to be developed in Kediri, namely agriculture, livestock, forestry and fishery sectors; the transport and communications sector; financial

sector, real estate and corporate services; and the service sector. Based on this, the government should explore the economic potentials in the region which then take the policy to develop the potential sector to become the leading sector as the basis of policy making of the region's economic development. Based on the Klassen typology there is no advanced sector and growing rapidly (quadrant I). The manufacturing sector is a quadrant sector II or an advanced but depressed sector. Quadrant III is potential sector of mining and quarrying sector; trade, hotel, and restaurant sector; and the services sector, while the other five sectors include relatively lagging sectors. It is expected that local governments can better optimize the potential utilization of existing sectors in their regions.

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