



# Analysis of the economic potential of regencies and cities in the province of the Special Region of Yogyakarta

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## ABSTRACT

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## 1. INTRODUCTION

National development in countries where the majority of the population is Muslim is generally focused on economic development by prioritizing development efforts and increasing welfare that touches all levels of society. Community welfare is closely related to improving the quality and standard of living as measured, among others, by the Gross Domestic Product (GDP) at the national level and the Gross Regional Domestic Product at the provincial, district and city levels.

Indonesia, whose population is predominantly Muslim, carries out development that cannot be separated from this view. National development must pay attention to the conditions of the community (majority Muslims). However, it still has to pay attention to minorities who equally have the right to enjoy the results of development. In addition, national development must also pay attention to the conditions of regions throughout Indonesia because regional development cannot be generalized on the grounds of differences in characteristics, culture, social conditions and so on. Therefore, the success of national development can be seen from the development of existing regions.

The next problem, from the existing economic growth, it is not yet known which economic sectors have the potential for competitive and comparative competitiveness. So that the existing growth is only limited to quantitative numbers only. For this reason, after the basic sector is known, it is continued with the identification of sectors that have the potential for competitive and comparative competitiveness. Not only that, another problem that must be solved so that economic growth is not only limited to numbers and has important meaning is to identify economic sectors that have the

potential for competitiveness and specialization. This is important, because potential that is not yet known for its superiority is difficult to develop. However, if it is known which sectors have their respective potentials,

The problems that hit the DIY Province are related to the economic potential, namely the area of each district is not yet known. city that is used to spur the development of development. With regional autonomy, all regencies/cities will develop their own regions independently. But the Province has a role as coordinator between districts/cities so that the Province must know which areas can be used as examples to spur development development.

The last important problem is that there is no basis sector priority in development development. Nine sectors owned by regencies/cities have programs in their economic activities. But not all can be run simultaneously. This is constrained by the allocated budget, then the RPJMD and the "urgency" of the program. For this reason, the priority for determining the base sector must be carried out in the hope that the government, with its policies and budget constraints, prioritizes the base sectors.

Even though the rate of economic growth over the past five years in other districts/cities has been quite good, each district/city must further increase its GRDP. In order for regional income to be a blessing for the local people, it is necessary to avoid economic activities or sectors that are illegitimate, contrary to Islamic law and detrimental to many people. Regional governments must be creative and innovative to take advantage of existing economic potential. Because there is still a lot of potential that has not been utilized optimally. So that districts/cities in DIY find and know the superior sectors in their regions.

The large number of provinces and regencies/cities in Indonesia that spread from Sabang to Merauke and the various potentials of different regions require serious attention in development efforts by the Government. Not every region has the same economic potential, for this reason research and follow-up studies must be carried out continuously so that development in the area is faster and in accordance with the conditions of the area. The government must also ensure that these potentials are not controlled by foreign parties at will so that it will have a detrimental impact on the area.

## 2. RESEARCH METHOD

In this study, the object of research was the area in the province of DIY, namely all regencies and cities. The time period used in this study covers the years 2005-2010 using data series (time series). While the type of data that the authors use in this study is secondary data, namely data obtained from the processing of second parties (external data) and the data used is annual data. The research method used in this study is *ex post facto*, which uses existing past data without giving special treatment or treatment to the variables studied.

This study only reveals the symptoms as they are without direct intervention from the researcher, so that in this study there is no need to provide any treatment or treatment to the variables in the study. The population of this research is all provinces in Indonesia. Meanwhile, according to "the sample is part of a number of characteristics possessed by the population". The sampling technique of this study was to use a purposive sampling technique, namely sampling using certain considerations from the researcher. Data collection methods are very important to account for the scientific truth of a research, besides that research methods are also needed to obtain results that are in accordance with the desired research objectives.

## 3. RESULTS AND DISCUSSIONS

### Discussion

The results of calculations using the LQ method show that from 2005 to 2010 there has been no significant change. The base sector in each district/city tends to be the same, not many sectors experience changes from the non-base sector to the base sector and vice versa. This indicates that development in regencies and cities in DIY Province from 2005 to 2010 did not experience much

change. In detail, the following describes the results of LQ analysis for each sector for 6 years from 2005-2010.

### 1. Base Sectors in Each Regency/City

#### a. Agriculture Sector

The agricultural sector is the basic sector in three of the five regencies and cities in DIY from the beginning of the year to the end of the year of analysis. The city of Yogyakarta has had an LQ value of  $< 1$  since 2005 and even its value has continued to decline until 2010, this is of course due to Yogyakarta as the capital of the DIY Province which carries out developments every year so that agricultural lands change over.

The agricultural sector is still the superior sector for the DIY region because in three of the five existing regencies, the agricultural sector is the basis sector and during the analysis period this sector has made a major contribution to the formation of GRDP. In other words, the agricultural sector has the ability to increase the economy both at the district and provincial levels.

#### b. Mining and Quarrying Sector

The results of the LQ analysis for the mining and quarrying sector show that there are three regencies that show the basis sector for their respective regions, namely Kulon Progo, Bantul and Gunung Kidul. For Gunung Kidul Regency, it is clear that the index is so large, so this is something that needs to be continuously developed. Gunung Kidul Regency has various types of minerals which are included in group C. The potential of mining goods in Gunung Kidul Regency includes Kaolin, Sand, Andesite, Zeolite, Limestone, Blocks, Tras and Chalcedony. Each of these types of mining products contributes to production in the formation of GRDP in the mining sector. So it has the potential to be exported to other regions. While the City of Yogyakarta has a value of  $LQ < 1$  since 2005 stable until 2007 and experienced a decline in the following year.

#### c. Processing Industry Sector

The Processing Industry in Bantul Regency is almost evenly distributed throughout the Bantul region. Uniquely, in Bantul Regency there are many craftsmen who produce a product that have been passed down from generation to generation and their business. So generally in a village to form a production center. For Kulon Progo Regency from 2005 to 2009 this sector experienced a consistent increase even though in 2010 it experienced a slight decrease.

### 2. Growth Ratio Model (MRP) Analysis

Analysis of the growth ratio model (MRP) is an alternative analysis tool to support the determination of a description of potential economic activities for districts/cities in the Province of DIY. MRP is similar to LQ, the difference lies in how it is calculated. LQ analysis uses GRDP distribution, while MRP uses growth criteria. To identify superior sector activities, both in terms of contribution and growth, MRP and LQ are combined, which is called an overlay.

Through an overlay between the reference area growth ratio (RPr), study growth ratio (RPs) and Location Quotient (LQ) it can be seen the identification of leading activities. The coefficients of these three components must be equated in units with a positive (+) or negative (-) notation. Positive notation means that the component coefficient is worth more than one and negative means the component coefficient is less than one. RPr is positive, meaning that the growth of sector  $i$  is higher than the total growth in the reference area. RPs with a positive notation means that the growth of sector  $i$  in the study area is higher than the growth of the same sector in the reference area. Meanwhile, LQ with a positive notation means that the contribution of sector  $i$  to GRDP in the study area is higher than the contribution of the same sector to GRDP in the reference area.

The superior identification of the overlay results in this study is distinguished by three criteria. First, the overlay notation of the three components is positive (+++), meaning that this activity has high sectoral growth at the DIY Province level, district/city sectoral growth is higher than DIY and district/city sectoral contribution is also higher than DIY Province. As a whole it states that the economic sector has the potential for competitive and comparative competitiveness in districts/cities that is superior to the same activities at the DIY level, and in DIY itself the sector has good prospects as indicated by the growth of the sector which is higher than the growth in total economic activity .

a. MRP Analysis of Kulon Progo Regency

According to the MRP analysis in Kulon Progo Regency, after overlaying, not one economic sector has a positive notation for the three components. This result means that in Kulon Progo Regency there are no sectoral activities that have higher growth and contribution at the DIY level. This means that the sectors in Kulon Progo Regency do not have the potential for superior competitive or comparative competitiveness compared to the same activities at the DIY level.

The results of the overlay analysis show that the sectoral activities in Kulon Progo Regency that meet the second criterion are the agricultural sector, the mining and quarrying sector and the processing industry sector. This means that the sectoral activities in Kulon Progo Regency are superior to the same sectoral activities at the DIY level, both in terms of growth and contribution. In other words, this sector is a specialization of the economic activities of Kulon Progo Regency in DIY.

b. MRP Analysis of Bantul Regency

The results of the MRP calculation in Bantul Regency after being overlaid found one economic sector that entered the first criterion with all three components having positive values. This sector is the construction sector. This means that the construction sector has high sectoral growth at the DIY Province level, then the sectoral growth of Bantul Regency is higher than the sectoral growth of the DIY Province, and the contribution of this sector in Bantul Regency is also higher than the DIY Province. This means that the construction sector in Bantul Regency has superior competitive and comparative potential compared to the construction sector in DIY.

c. MRP Analysis of Gunung Kidul Regency

The results of the overlaid MRP analysis show that during the 2006-2010 period in Gunung Kidul Regency there was not a single economic sector included in the first criterion with a positive notation for the three components. This result means that in Gunung Kidul Regency there are no sectoral activities that have higher growth and contribution at the DIY level. That is, these sectors do not have competitive or comparative competitiveness against DIY.

Even though none of them are included in competitive and comparative competitiveness, Gunung Kidul Regency is still supported by specialized activities, namely the agricultural sector as well as the mining and quarrying sector. Because these sectors in Gunung Kidul Regency are superior to the same sectoral activities in DIY, both in terms of growth and contribution.

d. MRP Analysis of Sleman Regency

The results of the MRP calculation in Sleman Regency, after being overlaid, found two sectors with positive notation of the three components. These sectors are the construction sector, as well as the trade, hotel and restaurant sector. Thus this sector has the potential for competitive and comparative competitiveness in Sleman Regency which is superior to the same activities at the DIY level.

The processing industry sector is a specialization advantage in Sleman Regency. That is, the activities of the manufacturing industry sector are superior to the same sectoral activities at the DIY

level, both in terms of growth and contribution. In addition, there is one sector whose three components have a negative notation, namely the agricultural sector. It is clear that the agricultural sector lacks competitive and comparative competitiveness which is superior to the same activities at the DIY level.

e. Yogyakarta City MRP Analysis

The results of the MRP calculation in the City of Yogyakarta after being overlaid there is one economic sector that is in the first category. This sector is the transportation and communication sector. This means that it is clear that the sector has the potential for superior competitive and comparative competitiveness compared to the same activities at the DIY level.

As a city, it is proven that the agricultural sector does not have the competitiveness that the transportation and communication sector has. This is indicated by the negative notation of the three components in the agricultural sector. However, sector finance, leasing and corporate services still contribute with their specialization activities.

### 3. Shift-Share analysis results on Competitive Advantage and Specialization

Shift-share analysis is a technique that describes the performance of sectors in a region compared to the performance of sectors of the national economy. Thus it can be found that there is a shift (shift) in the results of regional economic development, if the area is progressing slower or faster than national progress (Bendavid-Val (1983), Hoover (1984) See Prasetyo, 1993:44 in Nudiatulhuda, 2007: 44). Furthermore Lincolyn Arsyad (1997:290) and Latif Adam (1994), argued that shift-share analysis is a technique that is very useful in analyzing changes in regional economic structure compared to the national economy. This technique compares the growth rate of sectors in a region with the growth rate of the national economy and its sectors. and observe the deviations from those comparisons. If the deviation is positive, it is called the competitive advantage of a sector in the region.

Based on the results of a shift-share (SS) analysis of competitive advantage and specialization by sector for each district/city in the DIY Province, it appears that each district/city has competitive advantages and specialization advantages. This shows that the economic growth and per capita income of districts/cities in the Province of Yogyakarta varies and is of course supported by specialist sectors and competitive sectors. Regencies/cities in DIY that are competitive are marked with positive households. For the agricultural sector, there are three regencies that have their respective competitive advantages in Kulon Progo, Bantul and Gunung Kidul regencies and for the mining and quarrying sector there are three regencies that have specializations, namely Kulo Progo, Bantu and Gunung Kidul.

Then it is also known that of the five regencies/cities only Sleman Regency has a competitive advantage in the mining and quarrying sector. Competitive advantage in the manufacturing industry sector is owned by Kulon Progo Regency, Gunung Kidul Regency, and Yogyakarta City. In addition, competitive advantages in the electricity, gas and clean water sectors are found in the districts of Kulon Progo, Gunung Kidul and Sleman. The competitive advantage in the building sector is only owned by Bantul Regency. In the trade, hotel and restaurant sector, all regencies, except the City of Yogyakarta, have a competitive advantage.

In addition, we can see the advantages of specialization that each region has. Specialization can be seen with a positive SS value. For the agricultural sector as well as the mining and quarrying sector, there are three districts that have specializations for these two sectors, one each in Kulon Progo, Bantul and Gunung Kidul Regencies. On the other hand, there are two districts with negative SS values meaning they do not have specialization.

Specialization in the manufacturing sector is owned by the Regencies of Kulon Progo, Bantul and Sleman. Specialization in the electricity, gas and clean water sectors is only owned by the City of Yogyakarta. Furthermore, specialization in the building sector is found in Bantul and Sleman Regencies. Then Sleman Regency and Yogyakarta City specialize in the trade, hotel and restaurant sectors. Meanwhile, Kulon Progo Regency and Yogyakarta City rely on the transportation and communication sector. Regencies specializing in the financial, leasing and corporate services sectors are owned by the Sleman Regency and the City of Yogyakarta. Meanwhile, districts/cities specializing in the services sector are Kulon Progo Regency, Sleman Regency and Yogyakarta City.

It can be seen that in the agricultural sector in the three existing regencies, namely Kulon Progo, Bantul, and Gunung Kidul, they have a competitive advantage and specialization in the agricultural sector. Then Bantul Regency has a competitive advantage and specialization in the building sector. Sleman Regency has a competitive advantage and specialization in the trade, hotel and restaurant sectors as well as the financial, leasing and corporate services sectors. The city of Yogyakarta itself has a competitive advantage and specialization in the transportation and communication sector. The results of this analysis will be the same when compared with the results of the overlay analysis.

#### **4. Typology Analysis of Regency/City Areas in DIY Province**

The Klassen Typology method was used to determine the regional typology in this study. The Klassen typology divides regions based on two main indicators, namely regional economic growth and regional per capita income by determining the average economic growth as the vertical axis and the average per capita income as the horizontal axis. The observed areas are divided into four classifications, namely: Fast-advancing and high-income regions are the growth rates of GRDP and per capita income in the regions that are higher than the average growth and per capita income of the province.

Developed but depressed regions (high income but low growth), namely regions that are relatively advanced, but in recent years the rate of growth has decreased due to pressure on the main activities of the region concerned. This area is an area that has been developed, but in the future its growth will not be so fast even though the potential for development is basically very large. This area has a higher per capita income than the provincial average per capita income, but its economic growth rate is lower than the provincial average.

A fast developing area (high growth but low income) is an area that can develop fast with very large development potential but has not been fully processed properly. The level of a fast developing area (high growth but low income) is a region that can develop quickly with very large development potential but has not been fully processed properly. Level.

The results of the Typology analysis for DIY Province show that out of the five regencies/cities it owns, only one is classified as a Fast-Forward and Fast-Growing Region, namely the City of Yogyakarta. Meanwhile, Sleman Regency is classified as a fast developing area. The other three districts, namely Kulon Progo, Bantul and Gunung Kidul, are classified as relatively underdeveloped areas. This can be seen from the average growth and average per capita income which is still far below DIY's growth and per capita income.

#### **4. CONCLUSION**

The results of the LQ analysis show that the agricultural sector, the mining and quarrying sector, the manufacturing sector and the services sector are the dominant base sectors in the Province of the Special Region of Yogyakarta because they are located in three of the five districts/cities. Meanwhile, the building sector, the trade sector, hotels and restaurants, as well as the financial sector, leasing and company services are located in two districts/cities. For the electricity, gas and clean water sector as

well as the transportation and communication sector, only one regency/city owns it. Sleman Regency and Yogyakarta City have the most base sectors with five base sectors. Meanwhile, Gunung Kidul Regency has the least base sector, namely only two sectors.

The results of the overlaid MRP analysis show that there are several regencies/cities in the DIY Province that have the potential to be competitive and comparative in their economic sector. The sector is the building sector in Bantul Regency, then the building sector and the trade, hotel and restaurant sector in Sleman Regency as well as the trade, hotel and restaurant sector as well as the transportation and communication sector in the City of Yogyakarta.

Based on the Klassen Typology, the City of Yogyakarta is included in the Fast Forward and Fast Growing Region Typology. Meanwhile, Sleman Regency is included in the Typology of Fast Developing Regions. Three other districts, namely Kulo Progo, Bantul and Gunung Kidul, are included in the Relatively Disadvantaged Region Typology. Determining Regional Development Priorities based on the analysis of LQ, Shift-Share, Typology and Sectoral Growth, it is possible to determine which districts/cities are development priorities for each sector. The first priority for the agricultural sector is Gunung Kidul Regency; Mining and quarrying sector in Bantul and Gunung Kidul Regencies; Processing industry sector in Sleman Regency; Electricity, gas and clean water sector in the City of Yogyakarta; The building sector in Bantul Regency; Trade, hotel and restaurant sector in the city of Yogyakarta; The transportation and communication sector in the City of Yogyakarta; The development of the financial, leasing and company services sectors in the City of Yogyakarta and for the services sector are prioritized for development in Sleman Regency and the City of Yogyakarta.

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