# POTENTIAL AREA ANALYSIS IN THE AGROPOLITAN DEVELOPMENT AREA IN BOJONEGORO REGENCY, EAST JAVA PROVINCE, INDONESIA DOI: 10.31002/rep.v7i1.56 

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#### Abstract

The purpose of this study is to analyze the potential of the region in developing an agropolitan area in Bojonegoro Regency, East Java Province, through the location quotient, shif-share. Data collection techniques generally used primary and secondary survey methods. The results show that based on the results of the Location Quotient (LQ) calculation in Bojonegoro sub-district, which are included in the base sector, namely the mining sector, government administration sector, information and communication sector, and the mining sector. is; agriculture sector, mining and quarrying sector, manufacturing industry sector, electricity and gas procurement sector, wholesale and retail trade sector, transportation and warehousing sector, accommodation and food and beverage provider sector, information and communication sector, financial and insurance services sector, real estate sector, the corporate service sector and the government administration sector


Keywords: Regional Potential; Agropolitan; Location Quotient, Shift Share

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## INTRODUCTION

The concept of agropolitan development has been one of the popular planning concepts for several decades, specifically in agriculture and developing countries, such as Indonesia. The Agropolitan sector is considered the economic backbone of Indonesia. This sector's contribution to GRDP is recorded as $26,87 \%$, and it absorbs 90.873 workers, equal to $23,37 \%$ of the total population (Anonim, 2020). Since the determination of the agropolitan territory of each Regency in 2010, the local government has provided insignificant support to the facilities and infrastructure of agribusiness from downstream and upstream. Therefore, the local government, along with its people's participation, should be able to utilize the existing resources and forecast the potencies of resources in designing and evolving the area's development (Arsyad, 2015: 280).

The development of an area is one of the development programs designated to boost the growth rate of an area, improve the people's welfare level, narrowing the gap in growth and the inequality among areas. The area development is intended to improve the economic growth in a certain area by referring to the equally dispersed per capita income and the low unemployment rate (Nugroho, 2008). The economic-based development is one of the development concepts of an agropolitan area that enables it to enhance the added value towards the development of processing
industries (agroindustries) and supporting services that are aligned with the villages' environment (horticulture-based agropolitan area) (Arsyad, 2015: 470). Horticulture plants consist of biopharmaceutical plants, fruits, vegetables, and decorative plants. The agropolitan area must be developed to form the center of growth by evolving the agribusiness activities around the area. The existence of an agropolitan area emerged as the alternative solution for the area's development, particularly at the regional level (regency/village)(Andajani et al., 2017).

An area could be developed to become an agropolitan area only if it has the agricultural commodities and superior products of agriculture, adequate support and proper physical potencies, appropriate area coverage and proper numbers of people, as well as the existence of facilities and infrastructures (Baladina et al., 2013). The development activity for an agropolitan area can be conducted by involving 2 (two) sectors of activities, which are basic and non-basic. The basic activities are defined as the exportoriented activities (goods and services) outside the designated area's economic territory. In comparison, non-basic activities are considered local-oriented activities that accommodate people inside the designated area with goods and services (Takalumang et al., 2018). An area's economic basis sector can be analyzed using the Locations Quotient (LQ) method to identify the level of basic
sector specialization. The LQ technique applies the variable of workers or area's GRDP as the economic growth indicator. The LQ method is explained as the ratio between the number of workers in a certain sector or the total GRDP rate of a certain area compared to the same workers and sector ratio from other higher-level areas (Makalew et al., 2019).

Aside from the LQ method, to encourage the sustainability of superior commodities, the concept of change and shift in the area's economy should also be considered (Basuki \& Mujiharjo, 2017). The shift-share analysis could showcase the area's competitive superiority by comparing the performance of sectors in GRDP. Later, the deviation analysis on the above comparison is executed. If the deviation is positive, the area is said to have a competitive superiority. This analysis employs the isolation method on various factors that may cause the change in the industrial structure of an area from one period to the next (Suryanty \& Sriyoto, 2014). The shift-share analysis in this research resulted in the value of economic growth, which is based on the components of national growth, proportional growth, and regional share growth (Br Bangun, 2017).

Aligned with the LQ and Shift-share method, the development of an agropolitan area must be in line with the development objectives and targets as well as the area's strengths and weaknesses; hence the development strategies of potencies could be
more directed and eventually will become the guidelines for local government or whoever runs the business in the designated territory (Suresti \& Wati, 2012).

Previous researchers have studied basic sectors of an area. Most of the studies employed the LQ, Shift-Share, and SWOT analysis. Yet, several of the research used Klassen Typology. The difference in the research could be seen from the object of research, which focused on the potency of agriculture superior commodity in Bojonegoro Regency that might be developed to support the agropolitan. The previous research was conducted by Simanjuntak \& Sirojuzilam (2013), indicating the LQ and shift-share analysis results. It was concluded that the basic and competitive sectors included in the rapid-growth criteria are agriculture and industry. Based on the SWOT analysis, the possible strategy for developing the agropolitan area is evolving the designated potential sectors: agriculture and industry. At the same time, the research conducted by Cipta et al. (2018) indicated the main superior commodities that will be promoted, which are rice, mustard, cabbage, corn, and apple. The area situated in the hierarchy III is considered the priority area for commodity development, with available and appropriate land. The analysis results reveal that Poncokusumo District has become the priority area 1 with 4.221 ha, Wajak District the priority area 2 with 1.270 ha, and Tumpang District the
priority area 3 with 1.526 . At the same time, Jabung District is considered the priority area 4 with 1.315 ha. There are eight strategies implemented in developing priority commodities in the Tumpang development area of Malang Regency.

Bojonegoro regency is one of the regencies out of 29 regencies/cities in East Jave Province. Bojonegoro regency has a specific area that runs its agriculture sector in a modern way with the help of facilities and infrastructure that supports the improvement of agriculture production in agropolitan areas. By referring to the potencies of resources, Bojonegoro regency has a fine yield on staple crops. Based on the sub-category of GRDP over the basic fare implemented in Bojonegoro Regency in 2017, for the category of agriculture, fishery, and forestry, the largest is dominated by the sub-category of agriculture, farm, hunting, and services of agriculture. In which those staple crops have become the dominant commodities with 62,76 . The paddy production from 2013 to 2016 experienced a quite high increase, 802.528 tons in 2013, and raised $5 \%$ in 2014 to 847.860 tons. In 2015, the Production hit a raise of 7 percent, with 907.835 tons. In 2016, it was calculated with a 15,6 percent raise equal to 1.050 .073 tons. Yet, in 2017, it decreased by 8,2 percent to 963.137 (Anonymous, 2021).

The production decline is due to bad weather that causes crop failure, Bengawan Solo overflow, and the farmers who alter the
recent type of plants to others. All indicate the existing issues at the upstream sub-system in agropolitan areas. (Annisa \& Santoso, 2019).

The agropolitan area selection in Bojonegoro Regency must be reviewed since it is geographically and topographically less favored. Bojonegoro Regency is not an agrorelated area generally associated with mountains or highlands. On the contrary, it is situated in a lowland area, yet the potencies owned by this Regency are considered superior that could compete in agribusiness. Most of the areas in Bojonegoro Regency are managed by people under the village government and among villages, such as Bumdesa, Bumdesma, Pokdarwis, Gapoktan, and Poktan. None of the agropolitan areas is managed by a private or capital-intensive third party, hence the community's awareness and involvement in implementing the agropolitan concept. It becomes the crucial key for the success of developing the agropolitan sector. Lastly, the Bojonegoro regency includes the tourism concept in implementing the agropolitan concept. It promotes the growth of agro-based tourism villages. It significantly impacts other sectors, including MSMEs, society, economy, workforce, and tourism.

As reported by dinperta.bojonegorokab.go.id, in the past several years, the agriculture in Bojonegoro Regency demonstrated an interest in planting the horticulture commodities, particularly
fruits and vegetables. Moreover, many farmers have shifted from planting paddypalawija/bero to becoming paddyhorticulture commodities. Until recently, it has been recorded that shallot, red chili, Cauliflower, and beans are vegetables that could be developed in Bojonegoro Regency. While melon, longan, durian, orange, red guava, Kristal guava, watermelon, etc. Through the horticulture development program initiated by the Department of Agriculture, until recently, almost every district in Bojonegoro Regency has superior horticulture commodities.

Almost the entire district cultivates shallot and red chili commodities, although the products have not yet accommodated the people's needs in Bojonegoro Regency. Both commodities that influence the region's inflation start to grow and disperse in Bojonegoro Regency. The area of the shallot plantation in 2019 has covered 3.065 ha, while the red chili and cayenne plantation covered 135 ha dan 596 ha, respectively. Several regions recorded as the shallot's central Production are Kedungadem District, Gondang District, and Sekar District. Other farmers in other districts are also interested in planting the shallot. For chili commodities, red chili and cayenne are the most planted commodities.

Similarly, many farmers start including the fruits in their planting pattern after paddy for the fruits commodities. Seasonal fruits and annual fruit plants have
also started to be cultivated in a certain area to be later developed as agrotourism areas. Several agrotourism areas already exist in Bojonegoro Regency, among others starfruit agrotourism area in Kalitidu District, snake fruit in the Kapas District, Kristal Guava in the Trucuk District, melon is planted in Sumberrejo District, and many more areas with dispersed fruits commodities, yet still unclustered in a single agrotourism area.

The farmers' interest in the horticulture commodities happens not instantaneously. Due to the crop failure caused by the OPT attack and drought, the selling price is lower than for horticulture plants. Besides, young farmers are urgently required to become the future pioneer of planting horticulture commodities. Many farmers voluntarily performed trial error tests, which led to the failure. But eventually, they succeeded in this horticulture sector and finally inspired the surrounding farmers.

Based on the preliminary explanation, it can be revealed that the agropolitan area could improve the basic sector products that existed in Bojonegoro Regency-referring to the potencies and potential issues in Bojonegoro Regency. Hence, this research aims to develop the agropolitan area based on the prioritized superior commodity of the staple crops in Bojonegoro Regency.

## LITERATURE REVIEW

The Strategy of Regional Economic Development

According to Pantow et al. (2015), a regional economic development strategy is focused on improving employment for the existing people, which may encourage regional economic stability. Generally, the strategy of regional economic development can be clustered into four major groups, as follows:

1. The strategy of physical development/locality

It aims to create a regional identity, improve the enchantment basis of people's life quality, and improve the center of attraction in terms of improving the business process in the designated city. The implementation of this strategy can be in the form of establishing land banking, controlling planning and development, city planning, proper spatial arrangement, and accommodating proper housing and habitation.
2. The strategy of business development This strategy could be implemented by creating a decent business atmosphere, establishing an integrated information center, establishing a consultation center and empowering small businesses, manufacturing a joint marketing system, and founding a research and development institution.
3. The strategy of human resources (HR) This strategy could be implemented by executing the training under the
customized training system, creating skill banking, encouraging the atmosphere that supports the development of the educational institution and local skills, and developing a training center for the disabled.
4. The strategy for people's economic development

The activities associated with the people's development related to the enablement activities aim to empower the people in a certain area. This strategy is implemented by creating labor-intensive projects to meet people's needs or benefit from efforts.

## Agropolitan Concept

Agropolitan consists of two words, agro and politan (polis). Agro means agriculture, and politan refers to the city. Therefore, an agropolitan is defined as the city of agriculture or a city that is situated in an agricultural area, or agriculture is brought inside the certain city. Agriculture also can be defined as an agricultural city that grows and develops due to the existence of running system and the agro-businesses that can serve, motivate, and attracts the activities of surrounding agribusiness development (Pantouw et al., 2018). The concept of agropolitan development was first introduced by Mc. Douglass and Friedmann (1974, in Redhani \& Satria, 2020) as a strategy to develop the rural
area. Even though many factors are involved in the development of agropolitan, such as land redistribution, this concept serves the urban service in the rural area. Friedmann applied another term, which is "city in the field
". In another definition, the concept of agropolitan is the existence of integration between agriculture activities with business activity and industry. Such integration provides sustainability for all businesses originating from all aspects, either from agriculture production basic or industries that tailed it, which are the provision of production facilities, agriculture production, processing industries, marketing, and consumers distribution,

The limitation of an agropolitan area is set by the economic scale and economic scope, despite the administrative limits. According to Basri \& Arifin (2010), the determination of agropolitan better designed locally by considering the reality of existing agribusinesses development in every area. The future developing area must meet the following conditions, as follows:

1. To have the resources of land with appropriate agro climate to develop the excellent commodities.
2. To have the proper facilities and infrastructure to support the system development and agribusinesses, such as market, farmers' community, agribusiness consultation clinique, agribusiness technology research, transportation facilities, and irrigation.
3. To have the proper general infrastructure and facilities as well as the social welfare infrastructure and facilities (health, education, recreational, and others).
4. Environmental sustainability (resources, social and culture, cityvillage harmonious relation).

## The Substance of Agropolitan Area

## Development

The concept of agropolitan will be formed once the integration between agriculture sector activities with the agriculture sub-system exists, which is the agribusiness system and agroindustry subsystem. This integration requires human resource potency, infrastructure, facilities, community, and market support.


Figure 1. The Concept of Agropolitan in Area Development
Source : (Dahliani, 2020)

The sub-system integration in agropolitan, as described in Figure 2.1, explains the role of each sub-system in providing the sustainability of all businesses that move in all aspects, in terms of agriculture production basic, including the businesses or industries aligned, such as the supplies for Production, agriculture production, processing industry, marketing, and distribution.

1. Agribusiness

An agribusiness is a social-economic approach by emphasizes the business aspect of the agriculture activities, such as the management of production business and marketing for production results (Asmarantaka et al., 2018)
2. Agroindustry

Agroindustry is an activity of the processing industry that is directly related to primary agriculture production, either upstream or
downstream industries, and other forms of production organization refers to the rural organization (Saptana et al., 2016).

## RESEARCH METHOD

## Type of Research

This research employs the descriptivequantitative approach, and The researchers apply this approach to be able to analyze the data related to the identification of potencies of the superior commodity in agriculture and agriculture sub-sector competitiveness, as well as describe the problem phenomenon and facts related to potentially developed internal strength, external opportunities (government or global economic condition), and the external threat that may lead to a loss in the efforts of developing the agropolitan area in Bojonegoro Regency.

## Data, Instrument, and Technique of Data <br> Collection

This research involves primary and secondary data for the analysis process.

1. Primary Data

Primary data are collected by direct observation, interviews with stakeholders, and field documentation. A stakeholder is determined by applying the purposive technique. The parties are considered familiar and actively involved in the agropolitan area development (agriculture sector)—for example, the farmers of superior commodities in Bojonegoro Regency.
2. Secondary Data

It refers to the data collection technique that originated from a private letter, diary, minutes of a meeting, or official documents of government institutions. Secondary data employed in this research was obtained through the documents review of Bappeda planning, official documents of the related department, such as the Department of Agriculture and Plantation, the Department of Farm and Food Security, the Department of PUPR, the Department of Industry and SME, and other related departments. This research observes the GRDP value in Bojonegoro Regency for 5 years, from 2016 to 2020.

## The Technique of Data Analysis

## Analysis of Location Quotient (LQ)

This analysis is useful to identify the potency of agriculture superior commodities in Bojonegoro Regency that might be developed to support the agropolitan area. In the basic economic theory, this LQ analysis method is considered relevant in deciding the superior commodities, particularly in terms of Production (supply). Mathematically, the LQ formula can be written as follows:

$$
\mathrm{LQ}_{\mathrm{i}}=\frac{\mathrm{PDRB}_{\mathrm{TSi}} / \mathrm{PDRB}_{\text {totTS }}}{\mathrm{PDRB}_{\text {Bojonegoro }} / \mathrm{PDRB}_{\text {totBojonegoro }}}
$$

Description:
LQi : The value of LQ at the sector of i
PDRBTSi : GRDP sector i in Bojonegoro Regency

PDRB Bjri: GRDP sector i in Bojonegoro Regency

PDRB tot TS: Total GRDP of the entire sectors' activities in Bojonegoro Regency

PDRB tot Bjr :Total Rate of the entire sectors' activities in Bojonegoro Regency
Source: (Pramono, 2021)

## Shift Share Analysis (SSA)

Shift share analysis is employed to verify the sector's change and shift in the economic area of Bojonegoro Regency. This analysis is capable of demonstrating the superior competitive commodities of the Bojonegoro Regency area through the sector's performance in GRDP. In this research, the
shift-share analysis is applied to identify the level of competitiveness. The analysis is presented by using the following formula

1. The Growth of Area Share (Competitive Superiority)

$$
\mathrm{PPW}=\mathrm{E} i j\left(\frac{\mathrm{E} i j^{r}}{\mathrm{E} i j}-\frac{\mathrm{E} i n}{\mathrm{E} i n}\right)
$$

2. Proportional Growth

$$
\mathrm{PPW}=\mathrm{E} i j\left(\frac{\mathrm{E} i j^{\prime}}{\mathrm{E} i j}-\frac{\mathrm{E} n^{\prime}}{\mathrm{E} n}\right)
$$

3. Net Growth

$$
\mathrm{PB}=\mathrm{PPW}+\mathrm{PP}
$$

## Description:

$E i j=$ Production of commodity i in Bojonegoro Regency at the early year of analysis
$E i j^{\prime}=$ Production of commodity i in Bojonegoro Regency at the end year of analysis E in $=$ Production of commodity i in Bojonegoro Regency at the early year of analysis

E in ${ }^{\prime}=$ Production of commodity i in

En = Total Production of sub-sector i in Bojonegoro Regency at the early year of analysis
$E n^{\prime} \quad=$ Total Production of sub-sector i in Bojonegoro Regency at the end year of analysis Source : (Pramono, 2021)

## RESULTS OF THE RESEARCH AND DISCUSSION

Basic and Non-Basic Sector in Bojonegoro

## Regency

Basic and non-basic sectors in Bojonegoro Regency can be identified using the Location Quotient (LQ) method by comparing the level of the sector's role in a regency to the sector's role at the province level.

The result of the Location Quotient (LQ) analysis in Bojonegoro Regency for the past 5 years (2014-2018) can be seen in detail in the following table. Bojonegoro Regency at the end year of analysis

Table 1. GRDP of Bojonegoro Regency in 2014-2018
The Gross Domestic Product over Basic Price valid in 2010

| East Java Province Based on the Business Field (billion of Rupiah), 2014-2018 |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Business Field | 2014 | 2015 | 2016 | 2017 | 2018 | Average |
| Agriculture, Forestry and Fishery | 1,11 | 1,27 | 1,21 | 1,12 | 1,10 | 1,17 |
| Mining and Excavation | 9,50 | 10,47 | 11,53 | 11,81 | 11,59 | 11,35 |
| Processing Industry | $\mathbf{0 , 2 0}$ | 0,23 | 0,22 | 0,21 | 0,20 | 0,21 |
| Electricity and Gas | 0,07 | 0,08 | 0,08 | 0,07 | 0,08 | 0,08 |
| Water Service; Garbage Management, |  |  |  |  |  |  |
| Waste, and Recyclying | 0,37 | 0,41 | 0,39 | 0,35 | 0,26 | 0,35 |
| Construction | 0,76 | 0,84 | 0,79 | 0,74 | 0,72 | 0,77 |
| Wholesale and Retail; Car and |  |  |  |  |  |  |
| motorcycle Reparation | 0,46 | 0,52 | 0,50 | 0,47 | 0,46 | 0,49 |
| Transportation and Warehousing | 0,26 | 0,31 | 0,31 | 0,30 | 0,31 | 0,31 |
| Accommodation, Food and Beverage | 0,15 | 0,17 | 0,17 | 0,16 | 0,16 | 0,16 |
| Information and Communication | 1,11 | 1,28 | 1,27 | 1,21 | 1,20 | 1,24 |


| Financial Service and Insurance | 0,49 | 0,56 | 0,55 | 0,52 | 0,51 | 0,53 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Real Estate | 0,70 | 0,75 | 0,73 | 0,70 | 0,68 | 0,72 |
| Company's Services | 0,17 | 0,19 | 0,18 | 0,17 | 0,17 | 0,18 |
| Government Administration, Defence |  |  |  |  |  |  |
| and Mandatory Social Security | 1,68 | 1,94 | 1,85 | 1,73 | 1,66 | 1,80 |
| Education Services | 0,39 | 0,44 | 0,43 | 0,40 | 0,39 | 0,41 |
| Health Service and Sosial Activities | 0,64 | 0,72 | 0,66 | 0,61 | 0,58 | 0,64 |
| Other Services | 0,60 | 0,67 | 0,64 | 0,59 | 0,58 | 0,62 |

Source: processed in 2021
Based on the LQ calculation, it is revealed the basic sectors or LQ>1 in Bojonegoro Regency are: the mining sectors $(1,35)$, the information and communication sector ( 1,24 ), and government administration $(1,80)$, and agriculture and fishery (1.17). The mining sector still dominates the economy of Bojonegoro Regency, which is proven in 2014, the contribution of the mining sector towards GRDP in Bojonegoro Regency has reached Rp. 24.524 .000 .000 .000 or equal to $48 \%$ of total existing sectors. It is due to Bojonegoro Regency landscape being dominated by the limestone mountains scattered from the south and north of the Regency. It clamps the lowland that emerges as the continuation of the Kendeng mountains. The mining sector, the information and communication sector, and the government's administration demonstrate their bigger role than other sectors in East Java Province.

Sectors included in non-basic are identified as 13 sectors, which are: Processing Industry sector with an average of 0,21 ; the Electricity and Gas sector with an average of o,o8; Water Service with; Garbage Management, Waste, and Recycling with the average of 0,35 ; the construction sector with
the average of 0,77 ; The wholesale and Retail; Car and Motorcycle Reparation sector with the average of o,49; The transportation and Warehousing sector with the average of 0,31 ; The Accommodation, food and beverage sector with the average of 0,16 ; Financial Service and Insurance Service sector with the average of o,53; Real Estate sector with an average of 0,72 ; Company's Service sector with an average of $\mathrm{o}, 18$; The Educational Service sector with an average of o,41; Health Service and Social Activities sector with an average of o,64; and Other Services sector with an average of 0,62 . Therefore, it can be shown that non-basic sectors have a smaller role in East Java Province.

The above explanation indicates the economic potencies in Bojonegoro Regency that originated from the sector of mining, government's administration, information and communication, and agriculture have different levels of role. One is high, and the others are low. So not entire basic sectors have a high role in GRDP. Only four sectors, as mentioned earlier, give a relatively high contribution to GRDP in Bojonegoro Regency.

Aligned with the area economic growth theory, stated by Boediono, to escalate
the area's economic growth, it takes the ability to analyze the economic potency of a territory, related to the determination of real sectors that are needed to be developed. Hence, the area's economy will grow faster. On the other hand, it can identify the factors that cause certain sector potencies to become lower and able to determine the priority actions to deal with such weaknesses.

This research is aligned with the research conducted by Simanjuntak \& Sirojuzilam (2013). There are two economic sectors included as the basic sectors in Toba Samosir Regency, which are the processing industry and agriculture sectors. Later, the result of LQ analysis on the research conducted by Widowati (2014) proved that most agriculture commodities in Agropolitan area Segobatam was an economic basis. The result is aligned with the basic economic theory that verified that the rate of a sector's ability to fulfill the needs in a certain area determines the economic growth.

The result of the research is also emphasized by the research performed by Priyono \& Priyanti (2015), which stated that basic sectors in Enrekang Regency are the Production of agriculture yields with main plants horticulture. Horticulture production has grown rapidly due to the support of agropolitan areas.

The Potency of Growth in Bojonegoro Regency Area

Shift share analysis is employed to identify the area's growth in Bojonegoro Regency. This analysis is applied to notify the sectors' change and shift toward the economy in Bojonegoro Regency. The result of the shiftshare analysis can also showcase the area's competitive superiority in Bojonegoro Regency through the sector's performance shown in GRDP, compared to the GRDP in East Java Province. Then, the gap analysis is performed based on the result of the comparison. If the gap value is resulted positive, it indicates that the area has the competitive superiority. GRDP of Bojonegoro Regency and East Java Province towards employment over the basic constant price is used as the data for shift-share analysis.

The National Growth (PN) component is used to identify the economic structure shift and change by referring to the total GRDP rate of Bojonegoro Regency as the observed area, influenced by the economic growth shift in East Java.

The Proportional shift component is the growth of gross added value in sector $i$ in Bojonegoro Regency compared to the total sector at the East Java Province level.

The differential shift component is defined as the difference between the economic growth in Bojonegoro Regency and the gross added value of the same sector at the East Java Province level.

If a sector has a positive (+) proportional growth value, it can be
translated that the sector has a rapid growth. On the contrary, if the proportional growth value comes up with a negative (-) value, the sector can be presumed to have a slow growth level.

Later, if a sector is recorded with a positive (+) value on the area's share growth, it can be ensured that the sector has competitiveness. On the opposite, if it is recorded with a negative (-) value, thus it can be concluded that the sector share no competitiveness. Moreover, if a sector shares a positive (+) net growth value, it can be
concluded that the sector has a competitive superiority.

The result of the shift-share analysis (SSA) of Bojonegoro regency for the past five years (2014-2018) can be accessed in detail in the following table:

Table 2. The Result of the Shift-Share Analysis in Bojonegoro Regency 2014-2018

| Business Fields |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
|  | KPN | PP | PPW | PB |
| Agriculture, Forestry and Fishery | 42,38 | 17,51 | $-1,33$ | 16,19 |
| Mining and Excavation | 42,38 | $-23,07$ | 28,82 | 5,75 |
| Processing Industry | 42,38 | 3,85 | $-0,35$ | 3,50 |
| Electricity and Gas | 42,38 | $-22,97$ | 28,09 | 5,13 |
| Water Service; Garbage Management, Waste, |  |  |  |  |
| and Recyclying | 42,38 | $-6,52$ | $-35,87$ | $-42,38$ |
| Construction | 42,38 | 3,29 | $-5,65$ | $-2,36$ |
| Wholesale and Retail; Car and motorcycle |  |  |  |  |
| Reparation | 42,38 | 6,91 | 3,49 | 10,41 |
| Transportation and Warehousing | 42,38 | 7,94 | 28,71 | 36,65 |
| Accommodation, Food and Beverage | 42,38 | 16,27 | 8,85 | 25,12 |
| Information and Communication | 42,38 | $-0,41$ | 14,88 | 14,48 |
| Financial Service and Insurance | 42,38 | 1,70 | 8,76 | 10,46 |
| Real Estate | 42,38 | 5,09 | $-2,05$ | 3,05 |
| Company's Services | 42,38 | 6,67 | 5,64 | 12,31 |
| Government Administration, Defence and |  |  |  |  |
| Mandatory Social Security | 42,38 | $-0,53$ | 0,82 | 0,29 |
| Education Services | 42,38 | $-6,99$ | 3,95 | $-3,04$ |
| Health Service and Sosial Activities | 42,38 | $-1,97$ | $-9,34$ | $-11,31$ |
| Other Services | 42,38 | $-2,12$ | $-3,08$ | $-5,20$ |

Source: Processed in 2021
The above table indicates that the sectors of agriculture, the mining and excavation, processing industry, electricity and gas, wholesale and retail, transportation and warehousing, accommodation, food and beverage, information and communication
financial service and insurance, real estate, company's service, and government administration, have the competitiveness superiority.

The above result is aligned with the research performed by Simanjuntak \&

Sirojuzilam (2013). The economic sectors in Toba Samosir Regency share a positive D value for agriculture, industry, electricity and gas, water service, mining, and excavation. It is supported by the result of the research conducted by Widowati (2014) based on the Shift Share analysis, it can be identified that the basic commodities owned by Segobatam Agropolitan Area have high productivity and proper competitiveness by referring to the analysis calculation. It also revealed the promising prospect for external marketing outside the Segobatam Agropolitan Area.

## CONCLUSION AND SUGGESTION Conclusion

Based on the result of the research, discussion, and data analysis performed by the researchers, the conclusion could be drawn as follows:

1. Based on the result of the Location Quotient (LQ) calculation in Bojonegoro Regency, mining, government administration, information, and communication sectors are included as the basic sectors.
2. Based on the result of the Shift-share analysis calculation, the sectors with competitive superiority are; agriculture, mining, and excavation, processing industry, electricity and gas, wholesale and retail, transportation and warehousing, accommodation, food and beverage, information and
communication, financial service and insurance, real estate, company's service, and government's administration.

## Suggestion

The development of the region's economic potency that the government of Bojonegoro Regency performs should be emphasized not only to the development of certain sectors, such as agriculture, information, mining, and government administration, but also considering the development of non-basic sectors that eventually will be shifted. Therefore, the sectors with less added value from agriculture, mining, and government administration could be supported by the other basic sectors.

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