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Analysis of Economic Base and Sector Growth Contribution between Sidoarjo Regency and East Java Province: LQ, DLQ, and Shift-Share Approaches

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ABSTRACT

Understanding the sectoral structure and growth performance of regional economies is essential for effective policy formulation. Variations in economic structures between regions reflect differences in comparative advantages and sectoral competitiveness. This study analyzes the economic base and sectoral growth contributions of Sidoarjo Regency relative to East Java Province using an integrated regional economic analysis framework. We apply the Location Quotient (LQ), Dynamic Location Quotient (DLQ), and Shift Share methods to identify leading sectors, assess growth dynamics, and evaluate regional competitiveness. The study utilizes secondary data from Gross Regional Domestic Product (GRDP) at constant prices by industrial classification for the period 2020–2024, sourced from official Statistics Indonesia publications. The results indicate that Sidoarjo Regency's economic base is strong in the manufacturing industry, electricity and gas supply, and transportation and warehousing sectors, which consistently exhibit higher concentration levels than the provincial average. Dynamic analysis reveals that several sectors in Sidoarjo Regency grow at a faster rate compared to similar sectors in East Java Province, suggesting favorable development prospects. Additionally, Shift Share analysis shows that sectoral growth in Sidoarjo Regency is influenced not only by overall provincial economic growth but also by regional industrial structure and competitive advantages.Overall, the findings suggest that Sidoarjo Regency has a competitive and dynamic economic structure, particularly in industry- and logistics-based sectors. These insights have implications for regional development planning by highlighting the importance of strengthening leading sectors while promoting balanced sectoral growth.

Keywords: *Regional economic base, sectoral growth, regional competitiveness, Gross Regional Domestic Product.*

INTRODUCTION

Regional economic development is aspect important in studies economy development Because related direct with effort improvement welfare public as well as optimization potential an area. In the context this, structure economy something area No only understood from level growth aggregate, but also from contribution relatively every sector economy to economy in a way overall. Structure different economics inter-regional reflects existence variation superiority comparative and specialization sectors that can influence direction growth economy as well as effectiveness policy development area (Sorokozherdyev & Efimov, 2023). Therefore that, identification basic sector, namely sectors whose contributions more tall compared to the reference area become important Because sector the tend become a driving force main in development regional economy.

One of common approach used For identify the basic sector is Location Quotient (LQ) method. This method allows measurement level concentration something sector economy in the study area compared to with a larger reference area wide, such as level province or national. LQ value is higher from One show that sector the own contribution relatively more big to economy local compared to his contribution to the reference area (Mulyanto & Rahmawati, 2021). Research Empirical studies in various regions in Indonesia show that effective LQ approach in map sector superior in cities and districts certain, so that can become base in formulation policy development based on potential sectoral (Sulistyowati et al., 2022). However Thus, the LQ approach has limitations Because only represent structure economy in one point time, so that Not yet capable show dynamics change contribution sectoral from time to time.

For overcome limitations said, used Dynamic Location Quotient (DLQ) approach that takes into account temporal aspects in analysis structure economy. DLQ is development from LQ which includes variables time For evaluate How contribution something sector changed relatively to the reference area throughout period certain. Approach This allows researchers For evaluate whether identified sectors as top spot at the start period capable maintain or even increase his role in the period next (Pascal, 2023). With Thus, DLQ provides more insight dynamic about trend development sector in structure regional economy, including change potential sector from time to time.

In addition, Shift Share analysis is used For get a clearer picture holistic about contribution growth every sector to regional economy. This method share growth regional economy becomes three component main components, namely national share, industry mix, and competitive share. The national share component represents influence growth reference area economy to growth of the study area; industry mix reflects impact structure industry to regional response to growth economy national; while competitive share describes ability sector local For compete outside structure national (Wijaya & Marseto, 2022). Research using Shift Share method in various regions in Indonesia show that approach This effective in reveal components compiler growth economy, including in identify growing sectors fast and have Power competition tall (Nurmawati & Susilo, 2025; Ramadhani & Cono, 2025).

A number of studies empirical furthermore show that use third LQ, DLQ, and Shift Share approaches simultaneously can give a clearer picture comprehensive regarding the economic basis as well as contribution growth sectoral compared to only use One method only. Studies in district / city areas certain in Indonesia found that combination approach This succeed identify sector featured at a time component former growth economy dominant area, so give

base strong empirical For recommendation direction policy development data-based regional economics (Arjuniadi et al., 2025; Ramadhani & Cono, 2025). The approach integrated kind of This important Because formulation of effective development strategies need understanding No only about structure the economy, but also about contribution and dynamics growth of each sector.

Even though thus, some big study previously Still use approach single or Not yet fully combine third method analysis the in a way simultaneous. Other studies also emphasize that combination of LQ and DLQ can describe potential growth sector with more comprehensive compared to use of LQ only (Pascal, 2023). For that, research This adopt approach integrated with applying LQ, DLQ, and Shift Share to identify the economic base and contribution growth sector.

Study This focus on the Regency Sidoarjo, a areas that have dynamics high economy in East Java Province with using Product data Gross Regional Domestic base price constant (ADHK) for the 2020–2024 period. Regency Sidoarjo chosen Because his role as a strategic area adjacent to in a way geographical with center development regional economy, so that in -depth analysis required For know sectors that play a role dominant at a time contribute to growth economy local. This study aim for give recommendation policy further development appropriate target to sectors flagship in the Regency Sidoarjo based on results LQ, DLQ, and Shift Share analysis. It is expected findings study can give useful contribution for stakeholders policy area in formulate development strategies sustainable and empirically data - based economy.

METHOD

Study This use approach quantitative descriptive for analyze structure and performance economy Regency Sidoarjo through identification base and contribution sectors growth sectoral use Location Quotient (LQ), Dynamic Location Quotient (DLQ), and Shift Share methods. Research area is Regency Sidoarjo with East Java Province as area comparison period study covers 2020–2024 with using the above GRDP data base price constant (ADHK). The data used is secondary data sourced from from publication official Central Statistics Agency (BPS). All over sector economy analyzed so that study This use technique census. To determine the leading sectors the following approach is used:

Location Quotient (LQ) Analysis

The Location Quotient analysis tool is one of the analytical techniques in development planning used to analyze the leading sectors or basic sectors in a region's economy, by measuring the concentration of an economic sector in a region, namely comparing the role of that sector in the regional economy, in this case the Sidoarjo Regency area with similar sectors in the provincial economy. The LQ calculation formula is as follows.

$$LQ = \frac{\text{Xij}/\text{Xj}}{\text{Xiy}/\text{Xy}}$$

LQ = Location Quotient coefficient of sector i in Regency/City
Xij = Total GRDP of Sector i in Regency/City
Xj = Total GRDP in Regency/City
Xiy = Total GRDP of Sector i in Province
Xy = Total GRDP in the Province

The LQ classification of the GRDP approach is as follows:

LQ >1: the base sector and the GRDP capacity of that sector in Sidoarjo Regency are greater than similar sectors in East Java Province.

LQ = 1: the capability of the sector in Sidoarjo Regency is the same as that of similar sectors in East Java Province.

LQ <1: non-basic sector and the GRDP capacity of this sector in Sidoarjo Regency is smaller than similar sectors at the East Java Province level.

The higher the LQ value of a sector means the higher the competitive advantage of the region concerned in developing that sector, the sector in question is also a leading sector.

Dynamic Location Quotient (DLQ) Analysis

$$DLQ = \left(\frac{(1 + gik)/(1 + gk)}{(1 + \text{gip})/(1 + \text{gp})}\right)^{t}$$

Variable Description:

g_{ik}= growth rate of sector *i* in the Regency/City area

g_k= total growth rate of GRDP in the Regency/City

g_{ip}= growth rate of sector *i* in the Province

g_p= total growth rate of GRDP in the Province

t= number of research time periods

(e.g. 2020–2024 → t = 4 or 5 years, depending on the average method used)

For clarify position and dynamics sector economy, Location Quotient and Dynamic Location Quotient values obtained furthermore classified to in LQ–DLQ quadrants and presented in the following table form:

Table 1Quadrant LQ DLQ

Quadran	Criteria	Category	Meaning of Economy
I	LQ > 1 DLQ > 1	**Excellent**	The sector is base sector and has growth more fast compared to area comparator. This sector become a driving force main economy area.
II	LQ > 1 DLQ < 1	**Mainstay**	The sector is still is basic and contributing sectors big to economy area, however its growth relatively more slow so that need strengthening and revitalization.
III	LQ < 1 DLQ > 1	**Potential**	Sector not yet become base sector, but own rapid growth so that potential develop become sector future flagship.
IV	LQ < 1 DLQ < 1	**Left behind**	Sector no own superiority structure and growth relatively low, so that his contribution to economy area Still limited.

Sources: Yurliana et al., 2015 & Processed by the Author, 2025

Shift Share Analysis

Shift-share analysis is a technique used to analyze regional statistical data, including per capita income, output, employment, and other data. This analysis demonstrates how regional growth compares to national growth. Based on the above assumptions, the quantitative formulation of shift-share is as follows:

Dij= Nij+Mij+Cij

Information:

Dij= change (growth) in GRDP of sector *i* in region *j*

i= economic sector

j= region (district/city)

Reference area (n) = province (or national)

The formulation of the Shift Share Components is as follows:

1. Nij = Eij×rn

   Information:

   - N_{ij}= National Share
   - E_{ij}= GRDP value of sector *i* in region *j* in base year
   - r_n= total growth rate of GRDP of reference area (province)

2. Mij = Eij ×(rin − rn)

   Information:

   - M_{ij}= Proportional Shift
   - r_{in}= growth rate of sector *i* in the reference area
   - r_n= total growth rate of GRDP of reference area

3. Cij = Eij ×(rij − rin)

   Information:

   - C_{ij}= Differential Shift
   - r_{ij}= growth rate of sector *i* in region *j* (district/city)
   - r_{in}= growth rate of sector *i* in the reference region..

DISCUSSION

Location Quotient (LQ) Analysis

Essentially, economic sectors can be divided into two major categories: basic and non-basic. Basic sectors are those that are capable of meeting or serving the needs or markets within their own region, and can even export their goods and services outside the region (Mulyanto & Rahmawati, 2021; Sulistyowati et al., 2022). Meanwhile, non-basic sectors are sectors that are only able to meet or serve the needs or markets of their own region, even having to import from outside the relevant region. One approach used to determine these basic sectors is the Location Quotient approach, often abbreviated as LQ. LQ is an initial indicator to determine the surplus/deficit position of a region in terms of certain consumption/production. LQ analysis is a statistical method that uses output/value-added characteristics or employment opportunities to analyze and determine the diversity of the economic base of a regional community. The economic base is characterized by the characteristics of income and employment opportunities. LQ analysis provides a framework for understanding the stability and flexibility of a community's economy to changing conditions through an investigation of the degree of existing sectors within the community.

Based on the calculation of the economic added value in the GRDP of Sidoarjo Regency and the GRDP of East Java Province during the period 2020 to 2024, the results of the Location Quotient (LQ) calculation were obtained as in the following table.

Table 2Results of LQ Calculation for Sidoarjo Regency

GRDP Business Field	2020	2021	2022	2023	2024	Average LQ	Information
Agriculture, Forestry and Fisheries	0.19	0.18	0.18	0.18	0.15	0.18	NON-BASED
Mining and Quarrying	0.02	0.02	0.01	0.01	0.01	0.01	NON-BASED
Processing industry	1.77	1.78	1.74	1.72	1.68	1.74	BASE
Electricity and Gas Procurement	2.72	2.71	2.66	2.83	2.80	2.74	BASE
Supply, Management Garbage, Waste	0.79	0.79	0.76	0.76	0.91	0.80	NON-BASED
Construction	0.98	0.88	0.85	0.84	0.88	0.89	NON-BASED
Wholesale and Retail Trade, Repair	0.85	0.86	0.85	0.84	0.85	0.85	NON-BASED
Transportation and Warehousing	1.77	1.77	2.11	2.25	1.80	1.94	BASE
Provision of Accommodation and Food and Beverages	0.66	0.68	0.68	0.67	0.63	0.66	NON-BASED
Information and Communication	0.75	0.73	0.72	0.71	1.00	0.78	NON-BASED
Financial Services and Insurance	0.46	0.45	0.45	0.44	0.42	0.44	NON-BASED
Real Estate	0.56	0.55	0.54	0.55	0.62	0.56	NON-BASED
Corporate Services	0.20	0.20	0.19	0.19	0.18	0.19	NON-BASED
Government Administration, Defense and Compulsory Social Security	0.77	0.78	0.74	0.72	0.66	0.73	NON-BASED
Educational Services	0.44	0.43	0.42	0.42	0.45	0.43	NON-BASED
Health Services and Social Activities	0.48	0.48	0.46	0.45	0.49	0.47	NON-BASED
Other Services	0.26	0.25	0.24	0.23	0.24	0.25	NON-BASED
Total GRDP	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**BASE**

Sources: BPS Sidoarjo & Processed by the Author, 2025

Based on the results of the Location Quotient (LQ) calculation of the GRDP business sectors of Sidoarjo Regency during the 2020–2024 period, it shows that the regional economic structure is concentrated in certain sectors and is not evenly distributed across all business sectors. The average LQ value is used to identify basic and non-basic sectors by comparing the sectoral contributions of Sidoarjo Regency to East Java Province as a reference region.

The analysis results show that there are three basic sectors with an average LQ value > 1, namely the Manufacturing Industry, Electricity and Gas Supply, and Transportation and Warehousing. The Electricity and Gas Supply sector has the highest average LQ value of 2.74, which indicates a very strong level of specialization and the strategic role of this sector in supporting regional economic activity. The Transportation and Warehousing sector also shows consistent excellence with an average LQ value of 1.94, reflecting the function of Sidoarjo Regency as a regional distribution and logistics hub. Meanwhile, the Manufacturing Industry sector has an average LQ value of 1.74, which confirms its role as the backbone of the regional economy and a major driver of economic growth.

Superiority sector industry processing and transportation in line with character economy Sidoarjo which is oriented towards industry and logistics, as also found by Mulyanto & Rahmawati, (2021) in the area with pattern industrialization similar. This is show that high

LQ value No only reflect ability production, but also excellence comparative sector in interesting investment and markets.

On the other hand, most of the other business sectors are classified as non-basic sectors with an average LQ value of <1. The Agriculture, Forestry, and Fisheries and Mining and Quarrying sectors show very low LQ values, at 0.18 and 0.01 respectively, which indicates the limited role of the primary sector in the economic structure of Sidoarjo Regency. The low LQ value in the sector agriculture as well as mining indicates occurrence transformation structural economy Regency Sidoarjo from primary sector towards sector secondary and tertiary. These results in line with study Arjuniadi et al., (2025) who found that regency with orientation industry and services tend own primary sector that does not Again become an economic base main.

Service sectors, such as Trade, Accommodation and Food and Beverages, Information and Communications, and Financial Services, are also still considered non-basic, despite their significant nominal contributions. This indicates that these sectors are more oriented toward meeting internal regional needs than as leading sectors capable of generating a regional economic surplus.

Overall, the LQ analysis confirms that the Sidoarjo Regency economy has a strong comparative advantage in the industrial, energy, and transportation sectors, while other sectors still play a supporting role. This finding reinforces the characteristics of Sidoarjo Regency as an industrial and logistics region in East Java Province and aligns with the view of Sorokozherdyev & Efimov (2023), who emphasized that the concentration of leading sectors is a key factor in the effectiveness of regional economic development policies.

Dynamic Location Quotient (DLQ) Analysis

DLQ analysis is an analytical tool to determine basic or non-basic sectors based on the criteria of the sector's growth rate. The ratio between the sector's GRDP growth rate to the GRDP growth rate of Sidoarjo Regency is compared to the sector's GRDP growth rate to the GRDP growth rate of East Java Province. In general, the DLQ index > 1 is an indicator that the economic sector is a basic sector and will be superior in the future in terms of growth rate, the higher the DLQ index, the more superior and prospective the sector will be to be further developed in an effort to improve the regional economy of Batang Hari Regency and meet local, regional and international market demand.

Based on data on the economic growth rate of Sidoarjo Regency and East Java Province in the last five years (2020-2024), the results of the Dynamic Location Quotient (DLQ) calculation for Sidoarjo Regency are as shown in the following table.

The results of the Dynamic Location Quotient (DLQ) analysis are used to identify the dynamics and growth prospects of the economic sectors in Sidoarjo Regency compared to East Java Province as a reference region. A DLQ value greater than one (DLQ > 1) indicates that the related sector is experiencing relatively faster growth than the same sector at the provincial level, thus having the potential to become or maintain its status as a base sector in the future.

Based on results DLQ calculation during 2021–2024 period, almost all over field business in the Regency Sidoarjo show average DLQ value is higher from one (DLQ > 1). Condition This signify that rate growth sectoral in the Regency Sidoarjo in a way general more dynamic compared to with rate growth the same sectoral level East Java Province. DLQ value > 1 in almost all over sector reflect that economy Sidoarjo No only own superior structure but also

has potential growth term strong medium, which shows ability adaptation economy area the to change condition post-pandemic.

Table 3Results of DLQ Calculation for Sidoarjo Regency

GRDP Business Field	Dynamic DLQ Regency Sidoarjo				Average DLQ	Information
	2021	2022	2023	2024		
Agriculture, Forestry and Fisheries	2,087	2,280	2,193	0.181	1,685	BASE
Mining and Quarrying	3,268	0.375	1,496	0.519	1,414	BASE
Processing industry	1,943	1,788	1,854	0.239	1,456	BASE
Electricity and Gas Procurement	1,647	1,663	2,195	0.223	1,432	BASE
Supply, Management Garbage, Waste	1,440	1,332	1,432	0.424	1,157	BASE
Construction	1,297	1,780	1,926	0.313	1,329	BASE
Wholesale and Retail Trade, Repair	1,832	1,754	1,727	0.252	1,391	BASE
Transportation and Warehousing	1,850	3,948	2,438	0.106	2,085	BASE
Provision of Accommodation and Food and Beverages	2,080	2,090	1,835	0.208	1,553	BASE
Information and Communication	1,107	1,190	1,176	0.668	1,035	BASE
Financial Services and Insurance	1,897	1,980	2,022	0.223	1,531	BASE
Real Estate	1,439	1,549	1,565	0.354	1,227	BASE
Corporate Services	1,937	1,726	2,123	0.234	1,505	BASE
Government Administration, Defense and Compulsory Social Security	2,381	1,890	2,151	0.211	1,658	BASE
Educational Services	1,611	1,610	1,649	0.317	1,296	BASE
Health Services and Social Activities	1,623	1,590	1,525	0.335	1,268	BASE
Other Services	1,665	1,721	1,499	0.319	1,301	BASE
Total GRDP	**1,773**	**1,878**	**1,811**	**0.247**		

Sources: BPS Sidoarjo & Processed by the Author, 2025

The Transportation and Warehousing sector recorded the highest average DLQ score of 2.085, indicating that its growth far outpaced that of the same sector at the provincial level. sector This reflect role strategic Regency Sidoarjo as knot regional logistics and distribution, where connectivity infrastructure and functions strong market distribution has speed up dynamics growth. Conditions This in line with character economy Sidoarjo is known for as a oriented area logistics and industry.

The Agriculture, Forestry, and Fisheries sector also showed a relatively high DLQ value, with an average of 1.685, although structurally, this sector is classified as non-basic based on the LQ analysis. Thus, growth relatively high DLQ indicates that sector agriculture and fisheries in Sidoarjo start show prospects positive growth compared to with province, in line with findings (Nurmawati & Susilo, 2025). Findings This indicates existence acceleration growth potential primary sectors increase its role in economy future areas.

The Manufacturing Industry sector has an average DLQ of 1.456, indicating that Sidoarjo Regency's primary sector not only excels in terms of contribution but also has good growth sustainability. Similarly, the Electricity and Gas Supply and Wholesale and Retail Trade sectors

show DLQ values above one, indicating relatively faster growth dynamics compared to East Java Province. sector industry processing and transportation This in line with character economy Strong Sidoarjo in field industry and logistics, as found by Mulyanto & Rahmawati, (2021) in the area with pattern industrialization similar. Findings the show that high LQ value No only reflect ability production, but also excellence comparative sector in interesting investment and expansion market access.

Service sectors, including Financial Services and Insurance, Corporate Services, Education, and Healthcare, also recorded DLQ values > 1. This finding indicates a shift in economic structure toward the increasingly developing tertiary sector, which plays a role in supporting regional economic activity. However, there are fluctuations in DLQ values between years, particularly in 2024, which indicated a relative decline in some sectors, which could reflect structural adjustments or a general economic slowdown.

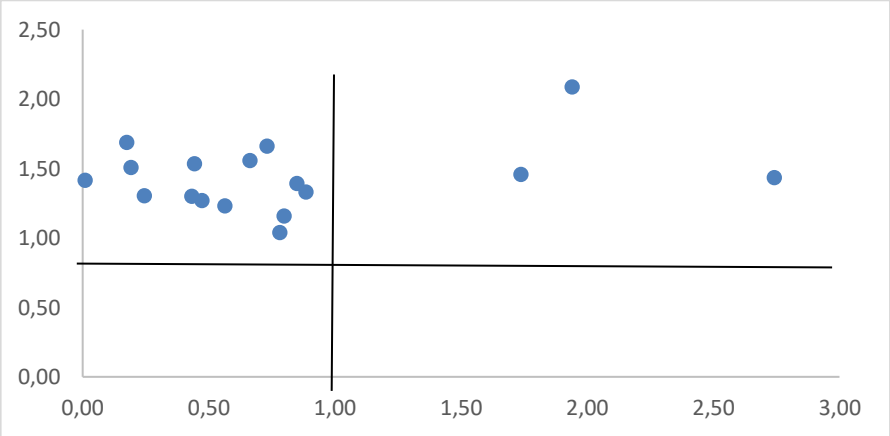
Overall, the DLQ analysis results indicate that Sidoarjo Regency has strong and relatively even sectoral growth potential, across both basic and non-basic sectors. This finding reinforces Sidoarjo Regency's character as an industrial and logistics region in East Java Province and aligns with the view of Sorokozherdyev & Efimov (2023), who emphasized that the concentration of leading sectors is a key factor in the effectiveness of regional economic development policies.

For make things easier understanding on results analysis, Figure 1. shows chart combination LQ and DLQ values of each sector. Visualization This show which sectors are superior in a way structure economy at a time grow relatively more fast towards East Java, at the same time confirm connection between position structural and growth sectoral.

Chart the show mapping field GRDP business based on the average DLQ (axis vertical axis /Y) and LQ (horizontal axis /X). The vertical line at LQ = 1 is the boundary between basic sector (LQ > 1) and non-basic (LQ < 1), while the horizontal line at DLQ = 1 is the boundary between sector with growth more fast (DLQ > 1) and sector with growth more slow (DLQ < 1) compared area comparison.

Based on graph, sectors that are in the quadrant right upper (LQ > 1 and DLQ > 1) categorized as sector flagship. Sector in the quadrant This own superiority structural at a time level more growth high, so that play a role as the main motor growth economy area. The points in this area reflect sectors that are not only strong his contribution moment this, but also has prospects good sustainability.

Figure 1LQ DLQ graph



Source: Processed by the author, 2025

The sectors in the upper left quadrant (LQ < 1 and DLQ > 1) include in sector potential. Although Not yet become basic sectors, sectors This show dynamics high growth. This is indicates existence opportunity for sector the For grow and become sector future flagship if supported by appropriate policies and development.

Next, the sectors in the lower left quadrant (LQ < 1 and DLQ < 1) are categorized as sector left behind. Sectors in the quadrant This Not yet own superiority comparative and also experienced relative growth low, so that his contribution to economy area Still limited and not become priority main in development economy.

As for the quadrants right below (LQ > 1 and DLQ < 1) represents sector mainstay, namely sectors that are structure Already become basic sector, but rate its growth relatively more slow compared to area comparison. Sectors in quadrant This still own role important as support economy area, however need effort improvement performance and innovation so as not to experience decline Power competitive.

With Thus, this DLQ–LQ graph give description comprehensive about position every field GRDP business, both from side superiority structural and dynamics its growth, so that can become base in determination priority policy development economy area.

Shift Share Analysis

The implementation of economic development will lead to changes in the economic structure. One sector may become less important in the formation of GRDP/GDP, being replaced by another sector according to prevailing economic conditions. This economic transformation process can differ between provinces, which can subsequently change a province's position within the national economy. These differences are caused by differences in the supply of raw materials, technology, investment, and human resources. These differences indicate that economic transformation in a region is crucial, especially as a guideline for allocating limited development funds, human resources, technology, and essential inputs for production across provinces. In this case, the analysis commonly used to evaluate structural change is shift-share analysis.

Shift Share analysis is used For identify source growth Product Gross Regional Domestic Product (GRDP) of Regency Sidoarjo with compare performance growth sectoral to growth economy East Java Province as a reference area (Nurmawati & Susilo, 2025). Through approach In this case, changes in GRDP are analyzed in a way systematic with break it down to in three component main, namely National Share (Nij), Proportional Shift or Industry Mix (Mij), and Differential Shift which represent Power competition sector (Cij). Combination third component the produce the total Shift Share (Dij) value used For classify category growth of each sector economy (Wijaya & Marseto, 2022).

Next, each component in Shift Share analysis explained For give greater understanding comprehensive about contribution growth national, structure sector, as well as level Power competition sectors economy in the Regency Sidoarjo

Table 4Results of Shift Share Analysis of Districts Sidoarjo and East Java Province

GRDP Business Field	Growth Economy (National Share)	(Proportional Shift) X	Competitiveness (Differential Shift) Y	Shift Share	Category
	Nij	Mij	Cij	Dij	
Agriculture, Forestry and Fisheries	267327.88	13314.19	-266079.98	14562.09	FAST
Mining and Quarrying	3922.71	-2295.95	-4191.25	-2564.48	SLOW
Processing industry	8523138.57	312916.82	-6930886.39	1905169.00	FAST
Electricity and Gas Procurement	162099.73	91997.10	-145474.94	108621.89	FAST
Supply, Management Garbage, Waste	12400.02	-5003.71	-5276.91	2119.39	FAST
Construction	1288174.61	-73257.38	-1093666.54	121250.69	FAST
Wholesale and Retail Trade, Repair	2617903.87	248654.47	-2035290.78	831267.57	FAST
Transportation and Warehousing	1234380.34	1375406.97	-1364476.52	1245310.79	FAST
Provision Accommodation and Food and Drink	617894.52	194765.35	-573341.63	239318.24	FAST
Information and Communication	807146.94	-417278.18	-189812.59	200056.17	FAST
Financial Services and Insurance	175314.24	-2266.11	-149271.46	23776.66	FAST
Real Estate	155241.75	-53547.96	-76089.43	25604.35	FAST
Corporate Services	24506.31	4661.93	-23578.98	5589.26	FAST
Administration Government, Defense and Security Mandatory Social	232203.20	-2170.38	-212795.19	17237.62	FAST
Educational Services	180396.37	-52368.47	-107949.32	20078.57	FAST
Health Services and Activities Social	54664.81	-12035.75	-34808.28	7820.78	FAST
Other Services	55652.25	14270.07	-53735.28	16187.03	FAST
Total GRDP	**16412368.11**	**1635763.00**	**-13266725.49**	**4781405.61**	

Source: Processed by the author, 2025

1. Growth Economy (National Share / Nij)

In a way general, all field business in the Regency Sidoarjo own National Share (Nij) value is positive, which shows that growth economy East Java Province in general overall give contribution positive to Regency GRDP growth Sidoarjo. Sector with largest National Share contribution including the Processing Industry (Rp8,523,138.57), Wholesale and Retail Trade (Rp2,617,903.87), Construction (Rp1,288,174.61), and Transportation and Warehousing (Rp1,234,380.34). This show that structure economy Sidoarjo is greatly influenced by the sectors main which is also dominant at the level province.

Findings This indicates that growth economy Regency Sidoarjo still very much influenced by dynamics East Java's economy in general general, which reflects existence

flow growth from the reference area going to area, as explained by (Wijaya & Marseto, 2022).

2. Proportional Shift (Mij)

   The Proportional Shift component describes whether something sector grow more fast or more slow compared to growth East Java's economy in general overall. Analysis results show that a number of sector own mark Mij positive, such as the Processing Industry, Wholesale and Retail Trade, Transportation and Warehousing, as well as Provision Accommodation and Food and Drink. This show that sectors the including group sectors that are structural grow fast at the level province.

   However thus, some big sector other own mark Mij negative, which indicates that sectors the grow more slow compared to average growth East Java's economy. Conditions This show that No all sectors in the Regency Sidoarjo be in the structure profitable growth regionally.

3. Competitiveness (Differential Shift / Cij)

   Component Differential Shift shows superiority or weakness Power competition sectors in the Regency Sidoarjo compared to with East Java Province. Analysis results show that almost all over sector own mark Cij negative, including sectors main such as the Processing Industry, Trade, Construction, and Transportation and Warehousing.

   Negative Cij values This indicates that although sectors the still grow, rate its growth Still more low compared to the same sector at the level East Java Province. With thus, power competition relatively sectors featured Sidoarjo Still classified as weak. Condition This reflect that Power internal regional competition need strengthened through improvement innovation, efficiency, and productivity sector, as confirmed by (Ramadhani & Cono, 2025).

   Mining and Quarrying Sector become sector with least condition profitable Because own mark Cij and Dij are negative, which indicates occurrence decline performance at a time decline Power competitive.

4. Shift Share (Dij) and Growth Category

   The Shift Share (Dij) value is accumulation from third component and reflects performance growth sector in a way overall. Analysis results show that part big field business in the Regency Sidoarjo own mark Dij positive and categorized as “FAST” sector (Arjuniadi et al., 2025; Nurmawati & Susilo, 2025) which means sectors the Still experience relative growth Good.

   However Thus, the sector Mining and Quarrying become the only one sector with mark Dij negative and including in “SLOW” category. Condition This show that sector the No only grow more slow, but also experienced decline contribution and power competition to economy area.

   The fact that part big sector own mark Dij positive but mark Cij negative confirm that growth economy Regency Sidoarjo Still more nature follow dynamics growth East Java Province compared driven by excellence internal regional competitiveness. Therefore that, development strategy area need directed at strengthening capability sectors superior to be able to grow in a way more independent and empowered competitive.

5. Overview of the Economy Sidoarjo

In a way overall, value Regency GRDP growth Sidoarjo (rn = 96.62) shows that Economy Sidoarjo still very much influenced by dynamics economy East Java Province. The growth that occurred more Lots driven by factors external (growth province) compared by superiority regional internal competitiveness. Although part big sector categorized grow fast, power competition sectoral need Keep going improved for growth economy Sidoarjo more sustainable and independent.

CONCLUSION

Based on the results and discussion, it can be concluded that the economy of Sidoarjo Regency has a relatively strong and competitive character. The results of the Location Quotient analysis indicate that the manufacturing industry, electricity and gas procurement, and transportation and warehousing sectors are basic sectors with a higher level of specialization than the average for East Java Province. This confirms that Sidoarjo's economic structure is supported by industrial and logistics activities that play a significant role in the formation of the regional GRDP. The Dynamic Location Quotient analysis shows that several of these leading sectors also experienced a faster growth rate than the same sectors at the provincial level, thus having good development prospects in the future. Meanwhile, the results of the Shift Share indicate that the growth of the economic sector in Sidoarjo Regency is not only influenced by the general economic growth of East Java, but also by the existing industrial structure and the region's competitive advantages. However, the relatively high dependence on certain sectors is a limitation that needs to be anticipated to prevent structural imbalances.

Based on these conclusions, it is recommended that the Sidoarjo Regency government continue to strengthen its core sectors by improving the quality of infrastructure, human resources, and providing policy support that benefits industry and logistics. Furthermore, the development of non-core sectors should be encouraged to create a more balanced and sustainable economic structure. Furthermore, further research can be conducted using a longer time period, additional analytical methods, and considering employment and investment aspects to obtain a more comprehensive picture of the dynamics of regional economic development.

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