

## ANALYSIS OF REGIONAL INEQUALITY AND ECONOMIC POTENTIAL IN THE KEDUNGSEPUR AREA 2017-2021

Oleh:

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### **ABSTRACT**

*This study intends to classify economic growth patterns between districts/cities, analyze the level of regional inequality, and identify sectors with the potential to be evolved to strengthen the regional economy in the Kedungsepur area. Secondary data is used in this study, which was processed using Klassen Typology, Theil Index, Williamson Index, Shift-Share, and Location Quotient analysis. The findings indicate that the majority of the growth patterns of districts/cities in Kedungsepur are relatively underdeveloped regions. Inequality across districts/cities in the Kedungsepur region is relatively significant and is expected to rise in 2017-2021. Economic potentials that are useful for encouraging regional economic growth in the Kedungsepur area are the mining and services industries in Grobogan Regency; the services industry in Demak Regency; the educational services industry in Semarang Regency; the agriculture and mining industries in Kendal Regency; the accommodation and food service industry and the company services industry in Salatiga City; as well as the communication and information industry in Semarang City.*

**Keywords:** *Economic Growth, Economic Potential, Inequality, Kedungsepur*

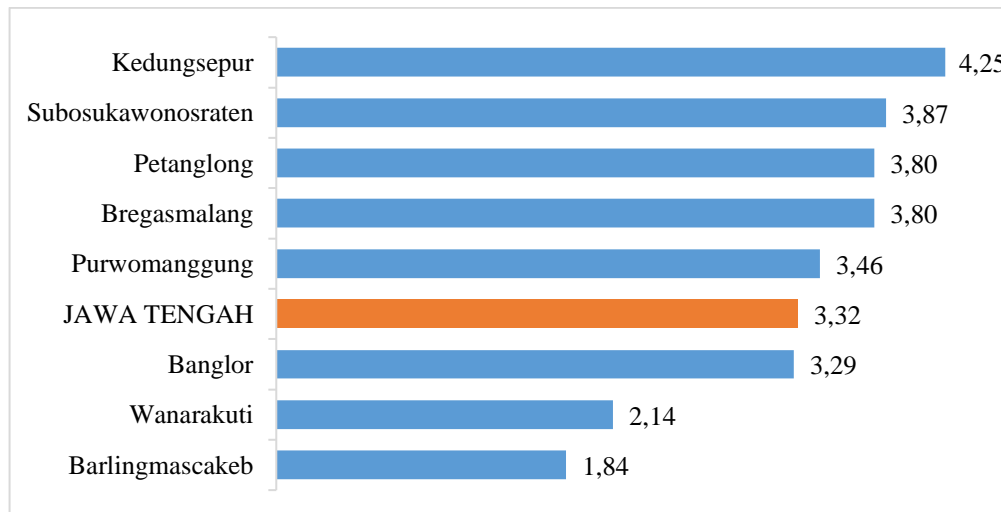
### **A. INTRODUCTION**

Economic development is an important issue in the economy, not only on a national scale but also on a regional scale. Todaro and Smith (2012:22-23) state that in the process of economic development, there are at least three development goals, namely 1) Increasing the availability and expanding the distribution of basic life necessities, 2) Improving the standard of living, and 3) Expanding economic and social options. Thus, it can be said that the ultimate goal of development is to improve the community's welfare.

Economic growth and lower income disparity between residents, regions, and sectors act as a benchmark of economic development success (Vaulina & Liana, 2015). High economic growth usually indicates a region's economy is getting better. However, development problems in the form of regional development inequality

will arise, if economic growth is not accompanied by equity. Regional inequality is a historical issue that has affected every region, from sub-districts to districts/cities, provinces, islands, and even the entire world (Kadriwansyah, Semmaila, & Zakaria, 2021). Yuliani (2015) argues that the inequality of development between regions has an impact on the balance of the cycle of economic activity which affects the inequality of prosperity between regions.

Natural resource content and demographic differences in each region are primarily the causes of regional inequality. Due to this disparity, each region often has developed regions and underdevelopment regions. This is because each region has a different capacity to promote the development process (Iskandar & Saragih, 2018). Furthermore, Mopangga (2011) states that the level of progress of each region is not the same due to the lack of available resources, the tendency of investors to choose areas that already have complete infrastructure facilities and skilled workers, as well as the inequality of income redistribution from the central government to the regions.



Source: Central Java Provincial Statistics Bureau (2022)

**Figure 1.**  
**Average Economic Growth by Strategic Areas of Central Java Province in 2017-2021 (%)**

The Kedungsepur area is one of Central Java Province's strategic areas, as established by Provincial Regulation of Central Java Number 6 of 2010 regarding the Regional Spatial Plan of Central Java Province for 2009-2029. Figure 1 shows that the Kedungsepur area has the highest average economic growth during the period 2017-2021 by 4.25% among other strategic areas. The economic growth of the Kedungsepur area is also greater than the economic growth of Central Java Province (3.32%) showing a fast growth compared to Central Java Province. However, most of the districts/cities in the Kedungsepur area have economic growth below 4.25%, except for Semarang City which is 4.66% as shown in Table 1. This shows that there are differences or less evenly distributed development between districts/cities in the Kedungsepur area.

**Table 1.**  
**Economic Growth Rate of Kedungsepur Area in 2017-2021 (%)**

District/City	2017	2018	2019	2020	2021	Average
Grobogan Regency	5,85	5,83	5,37	-1,57	3,78	3,85
Demak Regency	5,82	5,40	5,36	-0,23	2,62	3,79
Semarang Regency	5,65	5,67	5,39	-2,67	3,63	3,53
Kendal Regency	5,78	5,77	5,71	-1,51	3,89	3,93
Salatiga City	5,58	5,84	5,90	-1,68	3,33	3,79
Semarang City	6,70	6,48	6,81	-1,85	5,16	4,66
<b>Kedungsepur</b>	<b>6,26</b>	<b>6,12</b>	<b>6,22</b>	<b>-1,78</b>	<b>4,43</b>	<b>4,25</b>

Source: Central Java Provincial Statistics Bureau (2022)

Additionally, Table 2 demonstrates that the Gross Regional Domestic Product (GRDP) per capita of districts/cities in the Kedungsepur area has a substantial difference between the highest and lowest GRDP per capita, namely Semarang City and Grobogan Regency. Iswanto (2015) stated that GRDP per capita is a technique to measure a population's degree of welfare in a region. Therefore, the difference in GRDP per capita between regions demonstrates that the degree of welfare among districts and cities in the Kedungsepur area varies. As a result, it may be claimed that there exist development gaps between regions in the Kedungsepur area.

**Table 2.**  
**GRDP Per Capita in Kedungsepur Area 2017-2021 (Million Rupiah)**

District/City	2017	2018	2019	2020	2021	Average
Grobogan Regency	12,94	13,63	14,29	13,34	13,77	13,59
Demak Regency	14,54	15,18	15,84	15,26	15,55	15,27
Semarang Regency	31,15	32,50	33,82	32,94	33,92	32,86
Kendal Regency	28,89	30,33	31,84	29,90	30,86	30,36
Salatiga City	45,65	47,65	49,81	49,42	50,74	48,65
Semarang City	70,14	73,49	77,28	83,22	87,36	78,30
<b>Kedungsepur</b>	<b>35,08</b>	<b>36,83</b>	<b>38,72</b>	<b>38,02</b>	<b>39,51</b>	<b>37,63</b>

Source: Central Java Provincial Statistics Bureau (2022)

The analysis or exploration of sectors with the potential for development is one approach to working for increased economic equity and reducing regional disparities. The potential sector, according to Sutrisno (2012), is one with both a comparative advantage and a competitive advantage. Comparative advantage is a sector that can meet domestic needs and the rest can be exported to other regions, while the competitive advantage is a sector that can compete or have competitiveness in the market (Sutrisno, 2012). Thus, it is hoped that encouraging these potential sectors, can reduce inequality and encourage economic growth between regions in the Kedungsepur Area. Therefore, this research tries to classify the economic growth pattern, analyze the degree of regional development inequality, and identify sectors with the potential to be evolved to boost regional economic growth in the Kedungsepur area.

## **B. LITERATURE REVIEW**

### ***Economic Growth***

Economic growth is one sign of an economy's success in development. Economic growth, according to Sukirno (2013), is the actual rise in the number of goods and services produced in an economy. Meanwhile, Tarigan (2015) defines regional economic growth as a rise in the total community income in the region or a rise in all added value. To demonstrate the increase from one period to the next, regional income is stated in real value, or it is expressed in constant prices.

The purpose of economic growth is for the welfare of society. Therefore, Yasin (2016) suggests that strong economic growth has become the primary goal of regional development plans. However, the growth targets vary widely according to the economic potential of each region. It is hoped that strong regional economic growth will ultimately improve community welfare.

### ***Regional Inequality***

Inequality of development between regions is a common aspect of the economic activities of a region. This disparity is primarily caused by variances in natural resource content and demographic factors in each region. As a consequence of this disparity, a region's ability to promote development is usually divided into two categories: developed and underdeveloped regions. The occurrence of this inter-regional disparity has implications for the welfare of the inter-regional community (Iskandar & Saragih, 2018).

According to Simon Kuznet, inequality is a consequence of economic development and growth and inequality will increase in the early stages of economic development (Vo, Nguyen, Tran, & Vo, 2019). Simon Kuznets (1955) in Todaro & Smith (2012:224) also explains that income distribution tends to worsen in the early phases of economic growth but will improve in the later phases. The findings have been referred to as the "Inverted-U" Kuznets curve due to the longitudinal (time-series) changes in the distribution of income. The Kuznets curve can be formed by a continual growth process produced by the development of the modern sector.

Furthermore, Iskandar & Saragih (2018) explain that regions having good development conditions typically take advantage of the available growth chances when the development process is only getting started in developing countries. Due to insufficient infrastructure and poor-quality human resources, underdeveloped regions haven't been able to benefit from this opportunity. As a result, regional disparities in development typically widen.

### ***Regional Economic Potential***

The regional economic potential analysis is related to David Ricardo's (1917) concept of comparative advantage while discussing international trade. The comparative advantage in the context of the regional economy can be regarded as a comparison of commodities that tend superior to another commodity in the region. In addition to comparative advantage, there is the concept of competitive advantage

refers to a region's capacity to promote its products outside of the local/overseas/global market (Tarigan, 2015:79-81).

The industry with a competitive advantage that serves as the foundation of the regional economy is called the basis sector. Conversely, the other sector that is not fundamental and only exists to fulfill the needs of the local population is called the non-basis sector (Tarigan, 2015). The export base sector of a region has a significant impact on the composition of non-base industries and employment, as well as the distribution of population in the region (Dinc, 2015). Location Quotient (LQ) analysis is used to determine the potential of an economic sector, including basis and non-basis sectors. The LQ analysis results reveal the basis sector if  $LQ > 1$  and the non-base sector if  $LQ < 1$  (Ratnasari, Ningrum, Susanti, & Ginting, 2022) (Tarigan, 2015:82). But, if  $LQ = 1$ , the sector's role in the region is equal to the level of the reference area (Afandi, Jumiaty, & Adenan, 2019).

In addition to LQ analysis, to identify the economic potential of the region can use Shift-Share analysis. According to Tarigan (2015:85), the shift-share analysis makes a comparison in growth rates between the region and the national area but is sharper than the LQ method because the shift-share analysis describes the causes of changes in several variables. In shift-share analysis, three main components are interconnected with each other. First, the national share component ( $N_{ij}$ ) reflects how the national economy affects the regional economy and is positive if regional economic growth exceeds that of bigger areas (Khuluk, Muljaningsih, & Asmara, 2021). Second, the proportional shift component, also known as the industry mix ( $M_{ij}$ ), depicts the relative change in a sector's performance of an area compared to that of a similar sector at a higher area (Pratiwi, 2021). Third, the differential shift component, also known as a competitive advantage ( $C_{ij}$ ), can quantify a region's competitiveness in comparison with the growth of a similar sector in other regions (Abidin, 2015).

### C. RESEARCH METHODS

The research uses secondary data from six districts or cities in the Kedungsepur area from 2017 to 2021. The research takes on data from the Central Java Provincial Statistics Bureau comprising the Gross Regional Domestic Product (GRDP), economic growth rate, population, and GRDP per capita of districts/cities in the Kedungsepur Area. The research employed the following analytical method:

#### *Klassen Typology*

The analysis of Klassen Typology is used to depict the economic growth's structure and pattern for each area so that it can be established whether development has been implemented evenly across the region or vice versa (Iskandar & Saragih, 2018). Regional economic growth and per capita income serve as the two key indicators used by the Klassen typology to classify regions. According to Nurpita and Nastiti (2016), the regions identified in this study can be categorized into four classifications the rapid growth region (high growth and high income), the depressed region (high income but low growth), the developing region (high growth but low income), and the relatively backward region (low growth and low

income)—by specifying the average economic growth as the vertical line and the average income per capita as the horizontal line.

**Table 3.**  
**Klassen Typology Matrix**

	$y_i > y$	$y_i < y$
$r_i > r$	Quadrant I The rapid growth region	Quadrant III The developing region
$r_i < r$	Quadrant II The depressed region	Quadrant IV The relatively backward region

Source: Iskandar & Saragih, 2018

Note:

$r_i$ : the economic growth rate of district/city  $i$  in Kedungsepur

$r$ : average of the economic growth rate of all districts/cities in Kedungsepur

$y_i$ : GRDP per capita of district/city  $i$  in Kedungsepur

$y$ : average GRDP per capita of all districts/cities in Kedungsepur

### ***Regional Inequality Analysis***

The method employed to measure regional development disparities is the Williamson Index. Basic data for calculating the Williamson Index include the total population and the Gross Regional Domestic Product (GRDP) per capita (Nurpita & Nastiti, 2016). The measurement results of the Williamson Index range from zero to one ( $0 < V_w < 1$ ). If the index value is closer to one, it indicates a wider inequality. Conversely, if the index value approaches zero, it indicates that the inequality is decreasing or that it is more evenly distributed.

Regional inequality analysis can also be calculated using Theil Index. According to Suhartono (2015), the concept of the Theil entropy index was developed from information theory to measure economic inequality that can be used to make comparisons over a while and provide detailed descriptions of smaller geographical units. Sang-Arun (2013) states that Theil's index of regional inequality can be spatially divided into two sub-indices which are within-region inequality and between-region inequality. If the result of the calculation of the Theil Index is getting bigger, it shows that inequality in an area/region is getting bigger. Conversely, if the value of the Theil Index is getting smaller, it means that inequality in an area/region is getting smaller or more evenly distributed.

### ***Location Quotient (LQ)***

The analysis of the Location Quotient is employed to analyze the base sector or potential sector in a particular area. This method compares the magnitude of a sector's or industry's role in a region to that sector's or industry's role nationwide or in a wider area (Tarigan, 2015:82). The LQ measurement criteria proposed by Elburz & Gezici (2012) are: If LQ is greater than 1, it signifies that a given sector's

rate of specialization regionally is greater than the same sector's rate of specialization nationally. If LQ is less than 1, it indicates that a particular sector's rate of specialization regionally is lower than the same sector's rate of specialization nationally. If LQ is equal to 1, it implies that a particular sector's rate of specialization regionally is similar to that of the identical sector nationally.

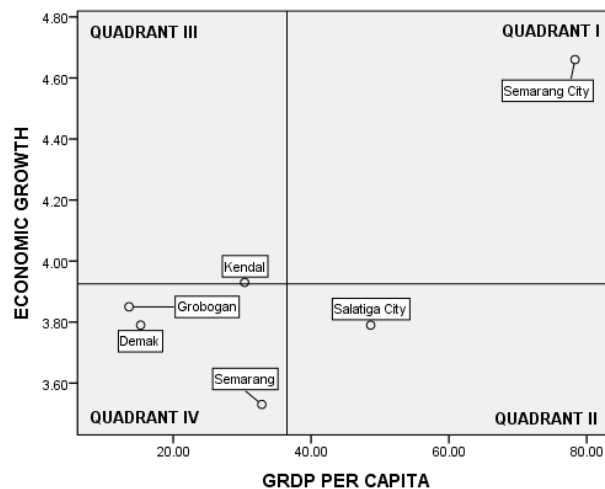
**Shift-Share Analysis**

A shift-share analysis is a methodology used to assess the growth of specific sectors that possess the potential to become pivotal industries for the economy in a particular region during a specified time frame (Ratnasari et al., 2022). Shift-Share analysis, a traditional tool employed by researchers, is commonly used to measure and evaluate regional economic performance by systematically analyzing differences in growth rates across industries and regions (Elburz & Gezici, 2012). The shift-share approach investigates regional economic change (growth or decrease) by breaking it down into three components: national share, industrial mix or proportional shift, and regional share or differential shift (Dinc, 2015).

**D. RESULTS AND DISCUSSION**

**Economic Growth Pattern**

The distribution of growth patterns for each district/city in the Kedungsepur area can be identified by Klassen's typology analysis which classifies regions based on regional economic growth and regional income per capita. Klassen's typology classifies regions into four classifications which are the rapid growth region, the depressed region, the developing region, and the relatively backward region. The classification of districts/cities in the Kedungsepur area based on Klassen typology analysis can be shown in Figure 2 and Figure 3.



Source: Central Java Provincial Statistics Bureau (2022) (processed)

**Figure 2.**  
**Classification of Klassen Typology in Kedungsepur Area 2017-2021**



Source: Geospatial Information Agency (2019); Central Java Province Geoportal (2019)

**Figure 3.**  
**Classification Map of Klassen Typology in the Kedungsepur Area**

Based on Figure 2, the Kedungsepur area can be grouped into four quadrants/classifications. Semarang City is located in quadrant I, which is a rapid growth region. This is because the level of economic growth and income per capita of Semarang City is higher than all areas average in the Kedungsepur area. Salatiga City is in quadrant II, which is a developed area with depressed conditions due to its higher income per capita but lower economic growth rate than all area averages of Kedungsepur. Kendal Regency is in quadrant III, which is considered a developing region due to its high economic growth rate but lower income per capita than all area averages of Kedungsepur. Grobogan, Demak, and Semarang Regencies are included in quadrant IV regions. Generally, regions in Quadrant IV are relatively backward regions both in terms of their level of economic growth and income per capita.

The pattern of economic growth based on the Klassen typology classification tends to be not well distributed in the Kedungsepur area. It can be seen in Figure 3 which of the many areas in quadrant IV tend to cluster in the east of the Kedungsepur area. Regions in quadrant IV are Semarang, Demak, and Grobogan Regencies, which are relatively underdeveloped regions compared to other regions.

### **Regional Inequality**

The size of GRDP per capita and the rate of economic growth among regencies/cities illustrate the differences in the development conditions of regencies/cities in the Kedungsepur area. The difference in the level of development between regencies/cities explains the existence of development inequality in the Kedungsepur area. To find out the level of inequality that occurs can be analyzed with the Williamson inequality index and Theil index. Table 4 displays the results of the Williamson Index and Theil Index calculations in the Kedungsepur Area for 2017-2021.



**Table 4.**  
**Williamson Index and Theil Index for Kedungsepur Region 2017-2021**

Year	Williamson Index	Theil Index
2017	0,6777	0,0890
2018	0,6792	0,0889
2019	0,6837	0,0894
2020	0,7392	0,1058
2021	0,7519	0,1085
<b>Average</b>	<b>0,7063</b>	<b>0,0963</b>

Source: Central Java Provincial Statistics Bureau (2022) (processed)

According to Table 4, the Williamson Index for the Kedungsepur Region during the 2017-2021 period has an average of 0.7063. The Williamson index value is approaching one, indicating that inequality is high or that development is still unevenly distributed among districts/cities in the Kedungsepur area. During the research year, the development of the Williamson Index tends to increase, which means that the inequality of development is getting bigger that year. The results obtained from the calculation of the Theil Index are also in line with the Williamson Index where inequality tends to increase during the research year. The larger the Theil index number indicates the greater the inequality, however, the Theil index does not have an upper or lower limit as in the Williamson Index (Yuliani, 2015).

### ***Regional Economic Potential***

One attempt that can be made to enhance economic equity and reduce disparities between regencies/cities is to analyze the region's economic potential or explore industries that have the potential for development using Location Quotient (LQ) and Shift-Share analysis. In the LQ analysis, an economic sector with an LQ value greater than one indicates that the sector's role is quite prominent in the area being observed, or that the sector had a comparative advantage which is called the basis sector.

**Table 5.**  
**LQ Analysis of Regency/City in Kedungsepur Area 2017-2021**

Sector / Industry	GroboganRegency	Demak Regency	Semarang Regency	Kendal Regency	Salatiga City	Semarang City
S <sub>1</sub>	<b>3,35</b>	<b>2,56</b>	<b>1,29</b>	<b>2,44</b>	0,55	0,10
S <sub>2</sub>	<b>3,33</b>	<b>1,16</b>	0,67	<b>2,96</b>	0,11	0,36
S <sub>3</sub>	0,44	<b>1,02</b>	<b>1,33</b>	<b>1,41</b>	<b>1,03</b>	0,90
S <sub>4</sub>	0,77	0,81	0,90	<b>1,56</b>	<b>1,68</b>	0,91
S <sub>5</sub>	0,57	0,93	0,96	0,99	0,98	<b>1,08</b>
S <sub>6</sub>	0,30	0,50	0,74	0,37	0,75	<b>1,39</b>
S <sub>7</sub>	<b>1,49</b>	<b>1,16</b>	0,80	0,83	0,96	1,00
S <sub>8</sub>	<b>1,65</b>	0,93	0,73	0,66	<b>1,07</b>	<b>1,06</b>
S <sub>9</sub>	<b>1,39</b>	0,74	0,93	<b>1,03</b>	<b>2,31</b>	0,90

S <sub>10</sub>	0,45	0,36	0,60	0,59	0,56	<b>1,38</b>
S <sub>11</sub>	<b>1,16</b>	0,68	0,99	0,52	1,00	<b>1,13</b>
S <sub>12</sub>	0,86	0,49	<b>1,19</b>	0,35	<b>1,91</b>	<b>1,12</b>
S <sub>13</sub>	0,48	0,48	0,93	0,53	<b>2,24</b>	<b>1,18</b>
S <sub>14</sub>	<b>1,10</b>	<b>1,14</b>	0,91	0,64	<b>1,72</b>	<b>1,02</b>
S <sub>15</sub>	<b>1,56</b>	<b>1,42</b>	<b>1,22</b>	0,83	<b>1,53</b>	0,81
S <sub>16</sub>	<b>1,26</b>	0,98	0,93	0,83	<b>1,89</b>	0,96
S <sub>17</sub>	<b>2,08</b>	<b>1,86</b>	0,94	0,95	0,73	0,78

Source: GRDP data for Central Java Province 2017-2021 (processed)

**Information:**

S<sub>1</sub>: Agriculture, Forestry, and Fisheries; S<sub>2</sub>: Mining and Quarrying; S<sub>3</sub>: Manufacturing; S<sub>4</sub>: Electricity and Gas; S<sub>5</sub>: Water Supply, Sewerage, Waste Management and Remediation Activities; S<sub>6</sub>: Construction; S<sub>7</sub>: Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; S<sub>8</sub>: Transportation and Storage; S<sub>9</sub>: Accommodation and Food Service Activities; S<sub>10</sub>: Information and Communication; S<sub>11</sub>: Financial and Insurance Activities; S<sub>12</sub>: Real Estate Activities; S<sub>13</sub>: Business Activities; S<sub>14</sub>: Public Administration and Defence; Compulsory Social Security; S<sub>15</sub>: Education; S<sub>16</sub>: Human Health and Social Work Activities; S<sub>17</sub>: Other Services Sector

The LQ analysis results for each district/city in the period 2017-2021 show that the Agriculture, Forestry, and Fisheries sector is the basic sector in Grobogan, Demak, Kendal, and Semarang Regencies. The Mining and Quarrying sector is the basic sector in Grobogan, Kendal, and Demak Regencies. The manufacturing sector is the base sector in Kendal, Semarang, Demak, and Salatiga Regencies. The Electricity and Gas sector is the base sector in Salatiga City and Kendal Regency. Water Supply, Sewerage, Waste Management, and Remediation Activities; Construction; and Information and Communications sector are the only base sector in Semarang City. The base sector in the Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles is owned by Grobogan and Demak Regencies. The Transportation and Storage sector is the basic sector in Grobogan Regency, Salatiga City, and Semarang City. The base sector in the Accommodation and Food Service is owned by Salatiga City, Grobogan Regency, and Kendal Regency. The base sector in the Financial and Insurance Activities is owned by Grobogan Regency and Semarang City. The sector of Real Estate is the basic sector in Salatiga City, Semarang Regency, and Semarang City. The Business Services sector is based in Salatiga City and Semarang City. The Public Administration, Defence, and Compulsory Social Security sectors become the basic sector in Salatiga City, Demak Regency, Grobogan Regency, and Semarang City. The base sector in the Education Services sector is owned by Grobogan Regency, Salatiga City, Demak Regency, and Semarang Regency. The Human Health and Social Work Activities sector is the basis for Salatiga City and Grobogan Regency. The Other Services sector is the basic sector in Grobogan and Demak Regencies.

The analysis of shift-share is employed to examine changes in the structure/performance of the regional economy (regencies/cities in the

Kedungsepur area) by comparing it with the higher regional economic structure (Kedungsepur). The relative change in the economic performance of districts/cities in the Kedungsepur area can be caused by three things. First, the national share (Nij) illustrates how the regional economy is affected by national economic growth. Second, the proportional shift (Mij) measures the relative change in a sector's performance of one region compared to that of a similar sector at the upper-level region. Third, the differential shift (Cij) determines the competitiveness or how competitive the regional sector is to the regional economy above it.

According to the shift-share analysis in the Kedungsepur Area from 2017 to 2021, most sectors in each district/city in the Kedungsepur Region had increased economic performance. It is apparent from the positive shift-share values in most economic sectors in districts/cities, except for the transportation and storage sector in all districts/cities and the mining and quarrying sector in Demak Regency and Salatiga City. Changes in the performance of each sector are affected by several components. The component of national share (Nij) for all sectors of each district/city in the Kedungsepur area has a positive effect, which suggests that national growth influences the growth of all sectors of each district/city. The highest average national growth effect in each district/city is in the Manufacturing sector and the lowest is in the Water Supply, Sewerage, Waste Management, and Remediation Activities. Meanwhile, Semarang City dominates the influence of the highest national growth in almost all sectors in the Kedungsepur Area.

The component of proportional shift /industrial mix (Mij) has a positive value in seven sectors in all districts/cities which are the Mining and Quarrying; Manufacturing; Electricity and Gas sector; Water Supply, Sewerage, Waste Management, and Remediation Activities; Information and Communication; Corporate Services Sector; and the Health Services and Social Work Activities. It demonstrates that the seven sectors grew more quickly than the comparable sector in Kedungsepur. While the other ten sectors with a negative Mij value are Agriculture, Forestry, and Fisheries; Construction Sector; Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; Transportation and Storage; Accommodation and Food Service Activities; Financial and Insurance Activities; Real Estate Sector; Public Administration, Defence, and Compulsory Social Security; Education Services; and Other Services Sector. It shows that the growth of these ten sectors is relatively slower than similar sectors in Kedungsepur.

The component of differential shift/competitive advantage (Cij) indicates a sector has a competitive advantage if it has a positive Cij value. Kendal Regency, Salatiga City, and Semarang City all have competitive advantages in agriculture, forestry, and fishing. The competitive advantage in the mining and quarrying sector is Grobogan and Kendal Regencies. The Manufacturing Industry sector has a competitive advantage in Grobogan Regency and Semarang City. The electricity and gas sectors have competitive advantages in the regencies of Grobogan, Semarang, Demak, and Salatiga. The Water Supply, Sewerage, Waste Management, and Remediation Activities have a competitive advantage in Semarang City and Demak Regency. Demak and Kendal's districts have a competitive advantage in the construction sector. The sector of Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles has a competitive

advantage in Semarang City and Grobogan Regency. The competitive advantage of the Transportation and Storage sector; and the Accommodation and Food Service Activities are located in Grobogan, Demak, Semarang, Kendal Regencies, and Salatiga City. The Information and Communications Sector has a competitive advantage in the Regencies of Demak, Grobogan, Salatiga City, and Semarang City. The competitive advantages of the Financial Services and Insurance sectors are found in Grobogan, Demak, and Semarang Regencies. The competitive advantage of the Real Estate sector is only owned by Semarang City. The Corporate Services industry has a competitive advantage in the Regencies of Demak, Semarang, and the City of Salatiga. The competitive advantages of Public Administration, Defence, and Compulsory Social Security are found in Salatiga City, Kendal, Semarang, and Demak Regencies. The Education sector has a competitive advantage in the Regencies of Semarang, Demak, and Kendal. The competitive advantage of Human Health and Social Work Activities is only found in Semarang City and Demak Regency. The Other Services Sector has a competitive advantage in all districts/cities in Kedungsepur, except for Semarang City.

Sectors with comparative and competitive advantages have the potential for development to strengthen the regional economy. Based on LQ analysis, comparative advantage can be identified from the sector as the basis, whereas shift-share analysis can indicate which sector has a competitive advantage in the Kedungsepur area. Therefore, potential sectors that can be developed to improve the economy of districts/cities in the Kedungsepur area are as follows: Grobogan Regency has potential sectors in the Mining and Quarrying, Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; Transportation and Storage; the Accommodation and Food Service Activities; Financial and Insurance Activities; and Other Services sector. Demak Regency has potential sectors in the Public Administration, Defence, and Compulsory Social Security; Education; and Other Services sectors. Semarang Regency has a potential sector in the Education Services sector. Kendal Regency has potential sectors in Agriculture, Forestry, and Fishing; Mining and Quarrying; and Accommodation and Food Service Activities. Salatiga City has a potential sector in the Electricity and Gas sector; Transportation and Storage; the sector providing accommodation and food and drink; Business Services sector; and the Public Administration, Defence, and Compulsory Social Security sectors. Semarang City has potential sectors in the Water Supply, Sewerage, Waste Management, Remediation Activities; Information and Communication; and Real Estate sectors.

## **E. CONCLUSION**

The growth pattern of districts/cities based on Klassen typology classification shows that most areas in the Kedungsepur Region during 2017-2021 are relatively underdeveloped regions and tend to cluster in the east of the Kedungsepur area, which are Semarang, Demak, and Grobogan Regencies. Based on the Williamson Index and Theil Index, shows that the inequality of development between districts/cities in the Kedungsepur Region in 2017-2021 is high and tends to increase until the end of the research year. The potential sectors with the largest role that can be developed by each district/city based on Location Quotient and Shift-

Share analysis are the mining and quarrying industries, the services industries in Grobogan Regency; the services industries in Demak Regency; the education service industries in Semarang Regency; the mining and quarrying industries, and the agricultural industries in Kendal Regency; the accommodation and food service industries, and the business service industries in Salatiga City; and the information and communication industries in Semarang City.

Some suggestions can be made based on the research findings as input and consideration for regional governments, including the recommendation that they give more attention to the aspect of equity in development between regions. Determination of regional economic development policies should prioritize regions that are relatively underdeveloped by not forgetting other regions, and strengthen the economic structure of regions that are relatively underdeveloped by improving infrastructure and supporting facilities that can attract investment in these regions. Regarding sectoral development policies to encourage regional economic growth, each region should prioritize the potential sectors owned by each region. However, other sectors still receive attention according to their potential. The development of these potential sectors should be based on inter-sectoral linkages and inter-regional cooperation so that they can move the economy through the exchange of commodities between regions. These policies, it is expected to increase equity and reduce regional inequality in the Kedungsepur area.

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