Analysis of Income Disparities between Regions in the Western Region of Indonesia and the Eastern Region of Indonesia

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Abstract

This study aims to analyze Income Disparities between Regions in the Western Region of Indonesia and the Eastern Region of Indonesia. The type of research used in this study is quantitative research. The variables in this study are Economic Growth. Based on the analysis, the results of this study are the provinces in the Western and Eastern regions of Indonesia are divided into four existing classifications. A total of 2 provinces, namely Jakarta and North Kalimantan Provinces, are among the fast-growing developed regions. A total of 5 provinces, namely Riau Province, Kepulauan Riau, West Papua, Banten and East Kalimantan are among the developed but depressed provinces. A total of 15 provinces namely Central Java, Southeast Sulawesi, Yogyakarta, Central Kalimantan, Jambi, North Sulawesi, Bengkulu, Central Sulawesi, South Sumatra, Maluku, West Sulawesi, North Maluku, South Sulawesi, and Gorontalo Including fast-growing provinces and as 12 provinces, namely West Sumatra, East Java, Bali, South Kalimantan, Lampung, West Kalimantan, West Java, North Sumatra, Aceh, Papua, Kepulauan Bangka Belitung and West Nusa Tenggara are among the many relatively lagging provinces.

Keywords: *Analysis, Income, Regions, Economy, Indonesia.*

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A. INTRODUCTION

Indonesia is one of the most populous countries in the world with a population spread to -4 in the world. In big cities in Indonesia, the population is increasing day by day (Azwar, et al., 2018). The dense number of residents located in big cities in Indonesia has a direct impact on small cities in Indonesia. The uneven distribution of the population makes development carried out unevenly so that it is clear that there is a gap between development in the Western Region of Indonesia and the Eastern Region of Indonesia.

The Western Region of Indonesia, which is included in the Java Island, is the island with the best development system in Indonesia. This is due to the location of the Capital City of Indonesia, namely DKI Jakarta, which is on this island as well, so development is very much considered, a good development system on Java Island is not only caused by the existence of the national capital but also because of the place where the government takes place, the center of economic development, employment, technology and information centers and education centers all grow and develop on the island of Java (Darzal, 2016).

Over time, development in Java Island is no longer viewed as a solution. Waste pollution, congestion, flooding, land subsidence, slums and others are all real impacts of an already excessive development. The increasing number of developments carried

out just adds to many problems, this creates significant differences with what happened in the Eastern Region of Indonesia.

Eastern Indonesia has a contrasting problem with Java. The problems that occur in this area are precisely the lack of development carried out such as lack of access to clean water, lack of health and education facilities and infrastructure, poor road conditions and others. All of them are problems that arise due to the lack of development carried out. In this area, development is a solution to overcome existing problems as well as a way out of problems that exist in big cities (Miyan, 2017).

Until now, the issue of regional inequality has been centered on the gap between villages and cities, between Eastern Indonesia and Western Indonesia, and between Java and outside Java. Many experts believe that regional inequality is a fair price to pay in the development process. The reason is simple, that is, there is a connection between one region and another as a system.

The indicators used to show that an area is considered more advanced than other regions are quite a lot, Human development index, physical quality of life index, and GRDP (Gross Regional Domestic Product). This kind of data, although not absolutely trustworthy, can be used as an initial illustration of how much a region is more advanced than other regions (Norma, 2013).

Table 1. PDRD/Capita of Western Indonesia and Eastern Indonesia

Western Indonesia		**Eastern Indonesia**	
Region	**GRDP/Capita**	**Region**	**GRDP/Capita**
Aceh	164,210,636.34	South Sulawesi	504,746,873.15
North Sumatra	801,733,339.98	West Sulawesi	46,360,393.14
West Sumatra	246,422,724.79	Southeast Sulawesi	129,260,128.71
Riau	765,198,298.61	Central Sulawesi	166,402,665.13
Kepulauan Riau	268,079,987.44	Gorontalo	41,150,593.35
Kepulauan Bangka Belitung	75,829,323.69	North Sulawesi	130,201,361.04
Jambi	217,711,779.47	West Nusa Tenggara	132,647,150.90
Bengkulu	72,143,372.88	East Nusa Tenggara	106,892,840.68
South Sumatra	455,232,776.78	Maluku	46,257,180.82
Lampung	360,663,624.81	North Maluku	39,715,966.50
Bali	252,579,504.04	West Papua	84,347,692.51
Banten	664,963,401.57	Papua	189,716,395.47
Jakarta	2,840,827,863.08	-	-
West Java	2,125,157,989.07	-	-
Central Java	1,362,457,380.57	-	-
Yogyakarta	141,400,183.08	-	-

East Java	2,352,425,220.74	-	-
West Kalimantan	212,318,428.46	-	-
Central Kalimantan	150,283,195.64	-	-
East Kalimantan	653,677,102.66	-	-
North Kalimantan	97,458,405.05	-	-
Average total		Average total	

Source: Central Statistics Agency, 2020

This enormous population expansion from year to year need greater investment and resources to support the well-being of the people in areas like as education, health, the economy, and others. Obviously, this is a challenge for the government's efforts to create and improve the living conditions of its people in order to achieve a society consistent with the 1945 Constitution. Today's rapid population expansion has a significant impact on a nation's economy, as seen by the fact that the population density in key cities in Indonesia has increased every year, so affecting the income level of the population (Doni et al., 2013).

Table 2. Total population of Western Indonesia and Eastern Indonesia

Western Indonesia		**Eastern Indonesia**	
Region	**Population**	**Region**	**Population**
Aceh	5459,90	East Kalimantan	4561.70
North Sumatra	14703,50	North Kalimantan	4561.70
West Sumatra	5498,80	South Sulawesi	8928.00
Riau	7128,30	West Sulawesi	1405.00
Kepulauan Riau	2242,20	Southeast Sulawesi	2755.60
Kepualaun Bangka Belitung	1517,60	Central Sulawesi	3097.00
Jambi	3677,90	Gorontalo	1219.60
Bengkulu	1517,60	North Sulawesi	2528.80
South Sumatra	8567,90	West Nusa Tenggara	5125.60
Lampung	8521,20	East Nusa Tenggara	5541.40
Bali	4380,80	Maluku	1831.90
Jakarta	10645,00	North Maluku	1278.80
West Java	49935,70	West Papua	981.80
Central Java	34940,10	Papua	3435.40
Yogyakarta	3882,30		
East Java	39886,30	-	-
West Kalimantan	5134,80	-	-
Central Kalimantan	2769,20	-	-
Average total	**210.409,1**	**Total rat-average**	**47,252.3**

Source: Central Bureau of Statistics, 2020.

According to the World Development report in Todaro (2004), characteristics that are often found in developing countries in general include (1) a relatively low standard of living, indicated by low income levels, severe inequality, poor health, and inadequate education, (2) low productivity levels, (3) population growth levels and

high burden of dependence, (4) enormous income dependence on agricultural sector production as well as exports of primary products (raw materials), (5) imperfect markets and limited available information, (6) dominance of dependence, and severe fragility on almost all aspects of international relations (Asman, 2011).

Relatively rich areas have a high rate of economic growth when compared to other regions. This high level of economic growth will have an impact on the level of welfare of the people. Unlike after the existence of regional autonomy, when the Indonesian government system was still centralized, there were regional areas on the island of Java that had high economic growth. This is because industrial activities are still centralized in Java Island and not only that, the location factor close to the center of government also has an influence on the high level of economic activity. With this, western Indonesia has a fairly high economic growth rate, so that the impact of economic activities continues to develop, making the level of welfare of its people also high. As the regional autonomy system progresses, the level of economic growth and development is no longer centralized in the Western Indonesia region alone, but the regions of Central and Eastern Indonesia have experienced an increase in economic development and development (Yunitasari, 2007).

Indicators of economic growth that continue to improve continue to be maintained with the active participation of all parties, especially local governments. The potential possessed by each region on the islands of Sulawesi, Maluku, Papua and other eastern regions of Indonesia should be optimized to support the acceleration of economic growth. On the other hand, the existence of budget constraints and potential disasters in Eastern Indonesia is a separate challenge in an effort to accelerate economic recovery in the East Indonesian region (Rev, 2020).

Based on the description above, the author is interested in conducting research on "Analysis of Income Disparities between Regions in the Western Region of Indonesia and the Eastern Region of Indonesia".

B. LITERATURE REVIEW

1. Economic Growth

One of the indications of effective development is economic growth. The more the economic growth, the greater the prosperity of the populace. In economic activity, the fiscal development of the production of goods and services prevalent in a country, such as the growth and quantity of production of goods, the development of infrastructure, the growth of services, and the growth of the production of capital goods, is referred to as the fiscal development of the production of goods and services.

2. Classical Growth Theory

According to classical economics, four elements drive economic growth: the number of residents, the quantity of capital goods stockpiles, the amount of land and natural resources, and the level of technology employed. Although he understood that economic growth is dependent on numerous factors, the classical economist concentrated primarily on population expansion's impact on economic growth.

According to Adisasmita (2013), classicists argue that supply creates its own demand, which means that an increase in the means of capital within a society will naturally lead to a rise in national production and economic development. As a result of this belief, classicists do not pay attention to the function of capital formation in the economy, which is to increase the level of public expenditure.

3. Schumpeter's Theory

The theory of Schumpeter emphasizes the significance of entrepreneurs in achieving economic progress. Theoretically, entrepreneurs are demonstrated to be a group that constantly updates or innovates economic activities. These innovations include the introduction of new products, the improvement of a product's production efficiency, the expansion of the product's market to new markets, the development of new sources of raw materials, and organizational changes designed to increase the efficiency of the company's operations. Diverse innovations will necessitate new investments.

According to Schumpeter, the greater an economy's rate of progress, the fewer its opportunities for innovation. Then, economic growth will go more slowly. Eventually, the "undeveloped state" or "stationary state" level will be attained. According to Schumpeter, the state of underdeveloped is attained through rapid economic growth.

4. Neo-Classical Theory of growth

The Neoclassical theory of growth examines it from the perspective of supply. According to this hypothesis, proposed by Abramowitz and Solow, economic growth is contingent upon the evolution of production variables. This point of view can be stated in the equation: $\Delta Y = f\Delta(K, \Delta L, \Delta T)$

where:

ΔY is the economic growth rate

ΔK is the growth rate of capital

ΔL is the population growth rate

ΔT is the level of technological development

The penning contribution of Neo-Classical growth theory is not in pointing out the factors influencing economic growth, but in its contribution to using the theory to conduct empirical investigations in determining the true role of various factors of production in realizing economic growth.

5. Regional Income Inequality

According to Hirschman, areas in a country can be distinguished into rich areas and poor areas. If the difference between the two regions narrows further, it means that there are *trickling down effects*. Meanwhile, if the difference between the two regions is getting farther, it means *polarization effects* occur.

6. Growth Center

The application of the concept of growth centers and regional development planning can be carried out by establishing several development areas where each of them is determined at a growth center both at the national and provincial levels. Development areas are usually determined by taking into account aspects of the similarity of socioeconomic conditions and *homogeneous development potential* and economic linkages with the surrounding area (*nodal region*). Meanwhile, the growth center is placed in the city or the center of economic activity contained in the area concerned. In this way, the economic aspect will be further encouraged through the use of the relationship between the dynamics of economic activity at the center of growth due to the agglomeration advantages supported by the economic potential of the region concerned.

7. Disparities between regions or regions

Inequality in regional development is a prevalent feature of a region's economic activities. This disparity is mostly attributable to variances in the natural resource content and geographical circumstances of each location. As a result of these disparities, the ability of a region to drive the development process varies. Therefore, it is not surprising that each region typically has both developed and undeveloped areas.

8. Disparity Measurement with Williamson

Using data on advanced and emerging countries, Williamson explored the relationship between regional disparities and levels of economic growth. He discovered that throughout the early phases of development, regional disparities grew and progress was concentrated in particular locations. At a later stage of economic development, there appears to be a balance across regions and discrepancies are greatly diminished. Although this index has many disadvantages, namely, among others, it is sensitive to the definition of the area used in calculations, this index is often used in measuring development inequality between regions (Syafrizal, 2008).

9. Thinking Framework

Income distribution inequality and economic growth constitute problems encountered in the development process. GRDP and its per capita income are used to examine economic growth and the level of fair distribution of economic development amongst regions in Indonesia. The GRDP is a measurement of regional economic development. Thus, it is possible to observe the rate of economic expansion. Meanwhile, per capita income is the outcome of GRDP multiplied by the number of persons who serve as a measure of the community's standard of living. The following is just the framework of thinking in this study:

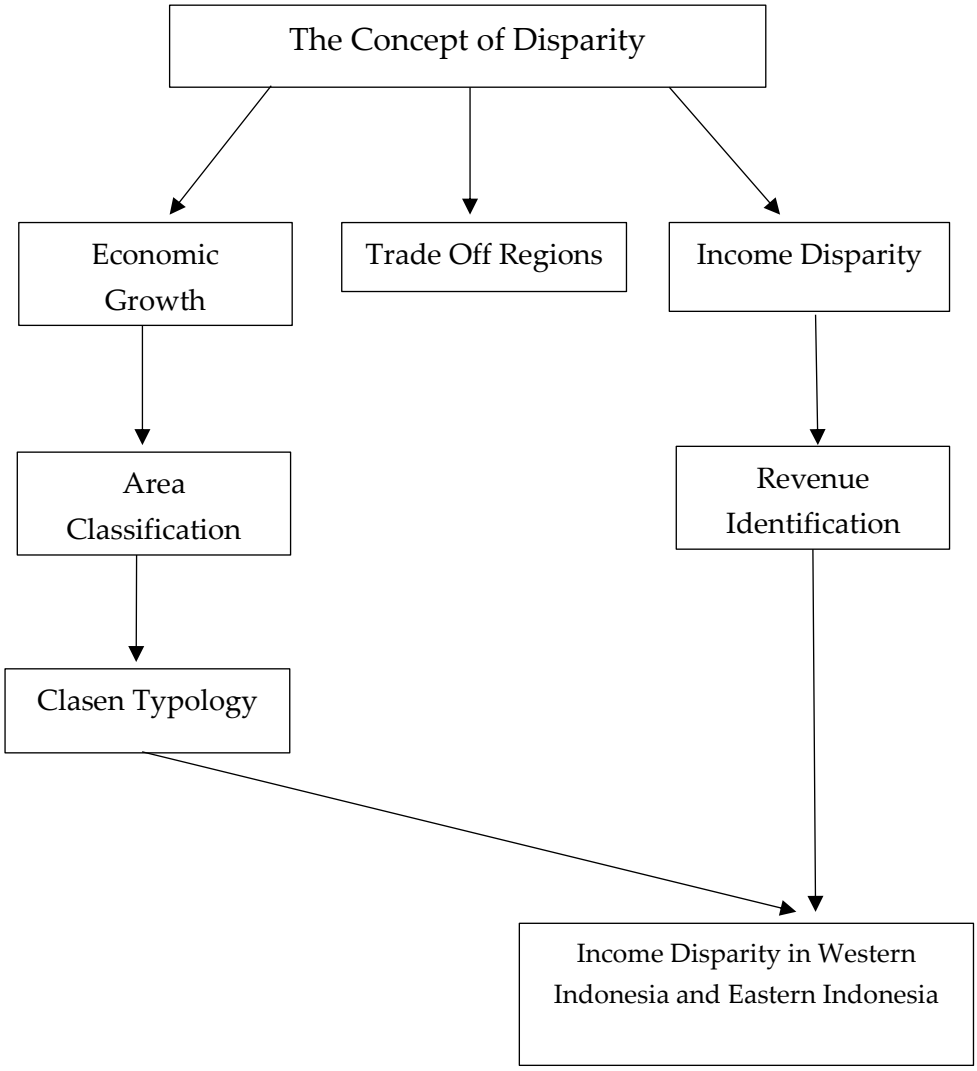

Figure 1. Thinking Framework

C. METHOD

This study employs quantitative research methodology. Quantitative research is research whose data are in the form of numbers, including data collection, data analysis, and the presentation of results (Sugiyono, 2017). The factors in this study are Economic Growth and Population Growth Economic growth refers to the fiscal development of a country's production of goods and services, such as the increase and quantity of industrial goods production, infrastructure development, the increase in the number of schools, the increase in the production of the service sector, and the increase in the production of capital goods. This study compares the economic growth of the Western Region of Indonesia with that of the Eastern Region of Indonesia. In this study, "total population" refers to the combined populations of the Western Region of Indonesia and the Eastern Region of Indonesia.

1. Data Sources

The data used in this study are secondary data, which are annual data for 2015-2020 and obtained from Central Bureau of Statistics and agencies related to this study. The data used in this study: GRDP data for each in the Maminasata area (Western Indonesia and Eastern Indonesia) obtained from the Central Statistics Agency, and population data.

2. Data Collection Techniques

According to Sugiyono (2017), data collection techniques are a strategic step in a study conducted to collect or obtain data through various ways, settings and sources. The data collection techniques used in this research are as follows: 1) Literature; and 2) Document Study.

3. Data Analysis Techniques

This study use the Klassen Typology Analysis and the Williamson Index for its analysis. Klassen's Typology Analysis is an analysis used to determine the patterns and structure of economic growth in each region. The Klassen Typology classifies regions based on two primary indicators, namely regional economic growth and and. Population. The Williamson index is utilized to measure regional disparity. The pattern and structure of economic expansion were analyzed using Klassen Typology, as illustrated in Table 1:

Table 1. Classification of Klassen Typologies

GRDP Per Capita / **Growth Rate**	**ydi > yni (+)**	**Ydi < yni (-)**
Rdi > rni (+)	Developed and fast-growing regions	Regions are developing fast but not advancing
Rdi < rni (-)	Developed but depressed regions	Relatively lagging regions

Information:
rdi = growth rate of Eastern Indonesia
rni = total growth rate of Western Indonesia
ydi = per capita income between Eastern Regions of Indonesia
yni = per capita income between Western Regions of Indonesia

The level of income disparity in Western Indonesia and Eastern Indonesia is calculated by the Williamson Index figures. The Williamson Index is used to determine the magnitude of income inequality. This method is obtained from the calculation of regional income per capita and the number of inhabitants of each region. If the value of the Williamson index is close to zero, then the degree of income distribution gap is getting smaller (more evenly distributed). Conversely, if the Williamson index value is getting farther and farther from zero then the gap widens. This regional inequality index is formulated as follows (Kuncoro, 2004):

$$IW = \sqrt{\sum_{t=1}^{i} (Yi - Y)^2 \, (f \; i \; n) \; / y}$$

Information:
IW = Indigo income inequality
Yi = GRDP per capita between Western Regions of Indonesia
Y = GRDP per capita between Eastern Regions of Indonesia
fi = Total population between Western Regions of Indonesia
n = Total population of Eastern Indonesia

The Williamson Index employs a per capita GRDP and population to calculate a number between zero and one, denoted by (0<W<1). With the indicator that the smaller the value of the Williamson Index, the less inequality there is, and vice versa, the bigger the number, the greater the inequality. The Williamson Index reflects a greater degree of inequality.

D. RESULTS AND DISCUSSION

1. Description of the Object of Study

Indonesia currently de facto consists of 34 provinces, five of which have different statuses (Aceh, Yogyakarta , West Papua, Papua, and Jakarta). The province is divided into 416 districts and 98 cities or 7,024 sub-district level areas or 81,626 village-level areas. There are also various local terms for an area in Indonesia such as: *kelurahan, desa, gampong, kampung, nagari, pekon*, or other terms accommodated by Law of the Republic of Indonesia Number 32 of 2004 concerning Regional Government. Each province has a Provincial Legislature and a governor; the district has a Regency DPRD and a regent; then the city has a City Legislature and a mayor; all are directly elected by the people through elections and local elections. However, in Jakarta there is no Regency or City DPR, because the Administrative Regency and Administrative City in Jakarta are not autonomous regions.

2. Research Results

In this study the authors used Klassen Typology analysis and Willamson Index analysis. Klassen Typology Analysis to find out an overview of the patterns and structure of economic growth of each region, this analysis basically divides the regions based on two main indicators, namely regional economic growth and population. Meanwhile, the Williamson Index analysis is to measure inequality between regions/ regions.

a. Economic Patterns and Structures in the Western and Eastern Regions of Indonesia

Gross Regional Domestic Product (GRDP) is one of the determinants of a region's economic performance. An increase or reduction in GRDP reflects an increase or decrease in economic activity and development in the region. In the meantime,

economic growth is growth that is segmented into different economic sectors, which is one of the indirect indications of a region's future development success.

The GRDP of the State of Indonesia can be known by looking at the contribution of each province. The greater the provincial GRDP, the greater the GRDP of the Indonesian State. The pace of economic growth seen from the GRDP each year will determine the amount of contribution made. Economic growth is one of the indicators that is usually used to measure the development results of an area.

Klassen typology is used to categorise regions based on two primary indicators: economic growth and income or Gross Regional Domestic Product (GRDP) per capita. The following table displays the average GRDP per capita and provincial economic growth in Indonesia from 2016 to 2020:

Table 2. Average GRDP Per Capita and Provincial Economic Growth in the Western Region Indonesia Based on Constant Price Tyear 2010

No	Province	Average PRB Per Capita (Thousand Rupiah)	Average Growth (%)
A.	**Western Indonesia**		
1	Aceh	29312.1	3.2
2	North Sumatra	50557.9	3.9
3	West Sumatra	41668.9	3.8
4	Riau	108035.3	1.8
5	Riau Islands	111493.4	2.5
6	Bangka Belitung	50165.2	2.8
7	Jambi	56260.6	3.5
8	Bengkulu	33614.3	4.0
9	South Sumatra	49235.7	4.4
10	Lampung	38883.6	3.8
11	Bali	51810.8	2.9
12	Banten	137515.3	3.7
13	Jakarta	243561.7	4.3
14	West Java	39623.3	3.9
15	Central Java	36301.3	3.7
16	IN Yogyakarta	33392.1	4.1
17	East Java	54144.2	3.9
18	West Kalimantan	38433.4	3.7
19	Central Kalimantan	51866.0	4.7
20	East Kalimantan	167555.0	1.5
21	North Kalimantan	124260.7	4.3
22	South Kalimantan	40171.7	3.4
B.	**Eastern Indonesia**		
23	South Sulawesi	51697.9	5.6

24	West Sulawesi	31474.3	4.4
25	Southeast Sulawesi	44278.4	5.1
26	Central Sulawesi	53429.6	10.3
27	Gorontalo	32015.9	5.2
28	North Sulawesi	47869.5	4.6
29	West Nusa Tenggara	24810.0	0.9
30	East Nusa Tenggara	18134.6	4.0
31	Maluku	24260.8	4.4
32	North Maluku	29432.5	6.5
33	West Papua	81840.6	3.3
34	Papua	58245.1	1.5
	Average	61333.9	3.9

Source: Central Bureau of Statistics (data processed, 2021)

In Table 2, Jakarta Province is ranked first in the average GRDP per capita during 2016 – 2020 of IDR. 243561.7 and the highest average growth is 10.3% achieved by Central Sulawesi Province this is due to the income base which is the industrial sector, where the need for industrial products is increasing every year with the increasing population, plus this sector is not too dependent on world market prices while for the lowest average GRDP per capita is East Nusa Tenggara of IDR. 18134,6. and the lowest average growth was West Nusa Tenggara at 0.9%. The average Gross Regional Domestic Product (GRDP) per capita of provinces in Indonesia is IDR. 61333.9 and the average growth is 3.9% this is due to the source base of income that still relies on natural resources, especially the agriculture, forestry and fisheries sectors as well as the mining and quarrying sector which is the largest contributor to income, so income is highly dependent on the price of natural resource commodities on the world market.

b. The Level of Progress in the Western and Eastern Regions of Indonesia

Klassen's typology is a tool for measuring disparities (gaps between regions) using variables of region and population. Klassen's typology divides groupings based on regional economic growth so that groups of regions are formed with the characteristics of developed and fast-growing provinces (high growth and high income), developed but depressed provinces (high income but low growth), fast developing provinces (high growth but low income), and relatively underdeveloped provinces (low growth and low income).

In this analysis, each province in the Western and Eastern Regions of Indonesia is grouped into four quadrants, namely:

Quadrant I is a developed and fast-growing province, namely a province whose economic growth rate and GRDP per capita are higher than the average province of the Western and Eastern regions of Indonesia.

Quadrant II is a developed but depressed province, namely a province whose economic growth rate is lower than the average province in the Western and Eastern

regions of Indonesia, while the GRDP per capita is higher than the average province in the Western and Eastern regions of Indonesia.

Quadrant III is a fast-growing province, that is, a province whose economic growth rate is higher than the average province in the Western and Eastern regions of Indonesia, but the GRDP per capita is lower than the average province in the Western and Eastern regions of Indonesia. Quadrant IV is a relatively lagging provincial area, namely provinces whose economic growth rate and GRDP per capita are lower than the average province in the Western and Eastern regions of Indonesia.

Table 3. Provincial Typology Quadrants in the Western and Eastern Regions of Indonesia

Quadrant	Typology	Province
Quadrant I	A Developed and Fast-Growing Province	1. Jakarta 2. North Kalimantan
Quadrant II	Developed but depressed provinces	1. Riau Islands 2. Riau 3. Banten 4. East Kalimantan 5. West Papua
Quadrant III	A fast-growing province	1. Central Java 2. Southeast Sulawesi 3. Yogyakarta 4. Central Kalimantan 5. Jambi 6. North Sulawesi 7. Bengkulu 8. Central Sulawesi 9. South Sumatra 10. Maluku 11. West Sulawesi 12. North Maluku 13. South Sulawesi 14. Gorontalo 15. East Nusa Tenggara

Quadrant IV	Relatively Underdeveloped Provinces	1. West Sumatra 2. East Java 3. Bali 4. South Kalimantan 5. Lampung 6. West Kalimantan 7. West Java 8. North Sumatra 9. Aceh 10. Papua 11. Bangka Belitung Islands 12. West Nusa Tenggara

Source: Central Bureau of Statistics (data processed, 2021)

From the data processing as presented in table 3 that the characteristics of progress or the level of welfare of the provinces of the Western and Eastern regions of Indonesia vary greatly when viewed from economic growth and the place of economic growth, as for the variation in the growth of provincial welfare in full, it can be decomposed into:

1) High growth and high income provinces
   This shows that the economic growth rate is above the average provincial economic growth rate in the Western and Eastern regions of Indonesia. In addition, the GRDP per capita of the provinces of these regions is relatively higher than the average GRDP per capita of provinces in the Western and Eastern regions of Indonesia, namely: DKI Jakarta and North Kalimantan Provinces. In addition, the provinces that belong to this classification are usually centers of trade and industry.
2) Provinces in quadrant II or developed but depressed provinces (high income but low growth)
   Consist of Riau Province, Riau Islands, West Papua, Banten and East Kalimantan. The provinces in this category are considered developed but depressed due to comparatively developed areas, although their growth rate has slowed in recent years due to the pressure of the regions' primary economic activity. Although this is a developed area, it is anticipated that its growth would slow down in the future, despite the fact that its development potential is enormous.
3) The provinces in quadrant III are high growth but low income provinces
   Consisting of fifteen provinces, namely: Central Java, Southeast Sulawesi, Yogyakarta, Central Kalimantan, Jambi, North Sulawesi, Bengkulu, Central Sulawesi, South Sumatra, Maluku, West Sulawesi, North Maluku, South Sulawesi, and Gorontalo. Provinces that are included in this classification are provinces that make business fields have a great influence in the structure of the economy, including agriculture, forestry, and processing industries, large

trade, and retail as well as quarrying and mining and also great potential, the potential for oil and gas.

4) Provinces in quadrant IV, namely provinces that are relatively lagging behind (low growth and low income) and not progressing (remain relatively lagging provinces)

   Consist of twelve provinces, namely West Sumatra, East Java, Bali, South Kalimantan, Lampung, West Kalimantan, West Java, North Sumatra, Aceh, Papua, Kepulauan Bangka Belitung and West Nusa Tenggara. The somewhat lagging areas, which include the twelve provinces listed above, are considered to be lagging since their growth rates and per capita income are lower than the average for all regions in Indonesia's Western and Eastern Regions. This indicates that both the prosperity of the population and the rate of economic expansion in this region are still relatively low. This does not, however, exclude future development in this region. It is anticipated that this region will eventually be able to catch up as a result of the development of regional economic facilities and infrastructure as well as the level of education and awareness of the local populace.

Provinces in the Western and Eastern Regions of Indonesia are categorized differently, with some classified as developed and fast-growing regions and others as relatively underdeveloped areas. This is because the regions are categorized as having a growth rate and per capita income that is still low because it has not maximized the potentials of the areas occupied by the region, particularly at the start of the Covid-19 pandemic year. In the year 202000, the Covid-19 epidemic had a significant impact on the economy, causing a global economic depression and a very severe contraction as nearly all nations severely limited travel. In fact, a number of nations have imposed lockdowns, resulting in an instantaneous and severe economic downturn. In Indonesia, the operational processes of many sectors must be constrained, such as factories that must cease operations because conditions do not permit it. For additional information, please view the image below:

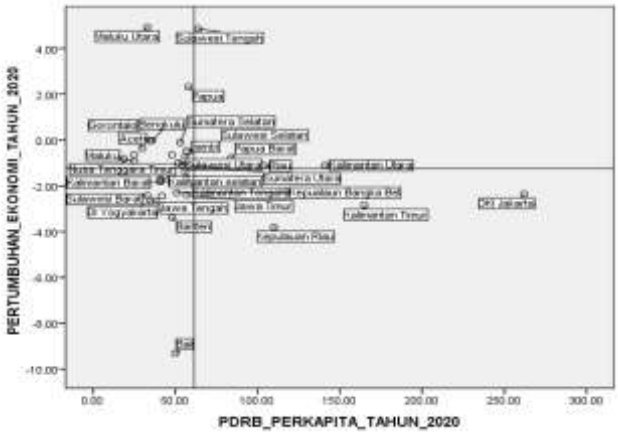

Figure 2. Position of Western and Eastern Regions of Indonesia According to GRDP per capita and growth rate in 2020

Source: Central Bureau of Statistics (data processed, 2021)

Based on the figure above, it can be seen that the pattern and structure of economic growth in the Western and Eastern regions of Indonesia in 2020. There are provinces that have the lowest growth rate and are included in Category IV, namely Bali Province of -9.31% which experienced a contraction due to the Covid-19 pandemic which caused a decline in tourists in Bali so that the performance of transportation and warehousing business fields, the provision of electricity and gas as well as the provision of accommodation and food and drink in the province experienced a very significant contraction. Meanwhile, the province of Central Sulawesi has such high economic growth compared to other provinces in the Western and Eastern regions of Indonesia and is included in category I regions, namely developed and fast-growing provinces

Even though it experienced the Covid-19 pandemic, this area did not experience such a significant influence as evidenced by such a large economic growth compared to other regions, namely 4.86% this was due to the start of operation of the base metal processing industry (smelter) in the area.

3. Analysis of Inter-Provincial Income Inequality in Western and Eastern Indonesia

The disparities in GRDP per capita across provinces in Indonesia's Western and Eastern regions provide an overview of the conditions and development of provinces in Indonesia's Western and Eastern regions. In order to provide a clearer picture of the state and growth of regional development in the Western and Eastern regions of Indonesia, the Williamson inequality index will be used to assess income disparity between provinces.

The basis for calculating the Williamson Index is in the form of a probability equation between: $0 < IW < 1$, which means that if the IW value approaches 0, then the level of income gap between regions is also getting smaller (the level of equalization is getting better), while if the IW value is close to 1, the level of income gap between regions is getting bigger (the level of income equality is getting worse). In some cases, it can also be concluded that the smaller its IW value (close to 0) means the more homogeneous the regions analyzed, while the greater its IW value (close to 1) means the more uniform the comparative advantage and competitiveness of each region relative to the much more regions. The calculation of the Williamson Index obtained results during 2016 to 2020 as follows:

Table 4. Inter-Provincial Williamson Index of Western and Eastern Regions of Indonesia

Year	Williamson Index
2016	0.730
2017	0.740
2018	0.773
2019	0.750
2020	0.743

Average	0.747

Source: Central Bureau of Statistics (data processed, 2021)

The calculation of the Williamon Index data reveals that the average per capita GRDP inequality between provinces in Indonesia for the period 2016-2020 attained a value of 0.747%. The disparity between provinces in the Western and Eastern Regions of Indonesia has expanded or extended significantly between 2016 and 2018, from 0.73 to 0.73. The 2018 increase in the Williamson Index may have been driven by global economic forces that continue to expand despite commodity price declines and increases. This performance was impacted domestically by rising investment, expanding exports, and stable public consumption.

In the meantime, inequality decreased from 2019 to 2020, falling from 0.750 to 0.743%. According to a report by the Ministry of Finance, the Indonesian economy managed to develop in 2019 despite the global economic slowdown caused by trade and geopolitical conflicts, decreasing commodity prices, and economic slowdowns in many nations. Despite Indonesia's external environment, the economy may continue to expand in 2019 thanks to stable internal demand, government consumption, and investment. In addition to lowering the unemployment rate, reducing inequality, and sustaining public welfare, sustained economic performance and the implementation of development initiatives have been successful in reducing the unemployment rate.

In general, the Williamson Index value of provinces in Indonesia during the research period of 2016 – 2020 has a tendency to increase. A graph of the tendency to increase and decrease inequality that occurs in provinces in Indonesia can be seen in Figure 2:

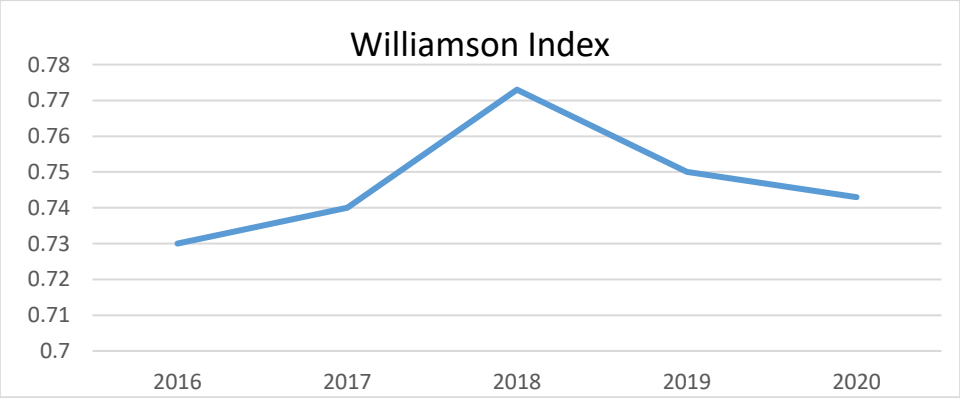

Figure 3. Development of the Willamson Index for the Western and Eastern Regions of Indonesia in 2016-2020

The Williamson Index value in provinces in Indonesia when viewed on average the level of Gross Regional Domestic Product (GRDP) per capita between provinces experiences relatively high inequality. This can be seen from the value of the gap that occurred between provinces in Indonesia during the years 2016 – 20 20 was volatile. When viewed from the table above, the development inequality between provinces in the Western and Eastern Regions of Indonesia is very wide, so we can see that the inequality of development between regions is increasing, it is likely that this happens because each region has different characteristics so that development cannot be

accepted equally in each province. The high value of inequality is partly due to the amount of GRDP per capita so that there is a large gap. In addition, the state of infrastructure is part of regional development. Infrastructure is the driving force of economic growth.

The results of the Klasen Typology Provincial Analysis from the Western and Eastern Regions of Indonesia vary in categories, some are classified as developed and fast-growing regions to relatively underdeveloped areas. Even though in 2020 Indonesia was hit by the Covid-19 pandemic, it is possible for several regions to continue to experience significant economic growth. Because several economic sectors began to operate, such as the base metal processing industry (smelter) in the province of Central Sulawesi.

The results of the study on the average inequality in the Western and Eastern Regions of Indonesia on 16-2020 the Williamson Index figure is 0.747, it is likely that this happens because each region has different characteristics so that development is not biased to be accepted equally in each region or province. In addition, inequality or inequality between regions is the concentration of regional economic activities is also one of the causative factors. A high concentration of economic activity in a particular area has a tendency to grow rapidly in the economy. And vice versa, regions with low levels of economic concentration will tend to have low levels of development and economic growth. Regions with a high level of economic concentration tend to have a higher level of population density than areas with low economic concentration.

Rapid economic growth will be able to drive sectors of the economy, and will eventually bring high local revenue receipts compared to regions with low economic growth. In addition, the number of inhabitants and the area of the area are used as variables in calculating the division of *Dana Alokasi Umum* (DAU) by the government. Thus, the high population density of an area will cause the amount of DAU received to be relatively higher compared to other areas where the population density level is lower.

E. CONCLUSION

Based on the data analysis carried out and the discussions that have been put forward, the following conclusions are obtained that the classification of provinces in the Western and Eastern Regions of Indonesia is based on economic growth and GRDP per capita. Using the Klassen Typology analysis tool with a regional approach, the provinces in the Western and Eastern regions of Indonesia are divided into four existing classifications. A total of 2 provinces, namely Jakarta and North Kalimantan Provinces, are among the fast-growing developed regions. A total of 5 provinces, namely Riau Province, Riau Islands, West Papua, Banten and East Kalimantan are among the developed but depressed provinces. A total of 15 provinces namely Central Java, Southeast Sulawesi, Yogyakarta, Central Kalimantan, Jambi, North Sulawesi, Bengkulu, Central Sulawesi, South Sumatra, Maluku, West Sulawesi, North Maluku, South Sulawesi, and Gorontalo Including fast-growing provinces and as many as 12 provinces, namely West Sumatra, East Java, Bali, South Kalimantan, Lampung, West

Kalimantan, West Java, North Sumatra, Aceh, Papua, Kepulauan Bangka Belitung and West Nusa Tenggara are among the relatively lagging provinces.

The average inequality that occurred in the Western and Eastern Regions of Indonesia in 2016-2020 between provinces in that period there was a fairly high inequality and this indicates the widening of inequality in the Western and Eastern Regions of Indonesia is 0.747.

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