COMPARATIVE ANALYSIS OF LEADING SECTORS IN THE HINTERLAND AREA OF NUSANTARA'S CAPITAL CITY

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Article Information	Abstract
	The relocation of Indonesia's capital from Jakarta to the Capital City of Nusantara (*Ibu Kota Negara*/IKN) in East Kalimantan aims to address development inequality and promote equitable economic growth. As IKN's hinterland, Balikpapan City, Samarinda City, Kutai Kartanegara District, and Paser District are crucial in supporting this vision. This study analyzes the comparative advantages and potential sectors for development in these areas using a quantitative approach with secondary data from 2010 to 2023. Location Quotient (LQ) and Dynamic Location Quotient (DLQ) analyses identify key sectors, and an overlay analysis is used to conclude which sectors are the leading sectors, visualized through Tableau. Balikpapan has 12 base sectors, with manufacturing, transportation, and warehousing as the strongest. Samarinda has 14 base sectors, led by finance and other services. Kutai Kartanegara District and Paser District rely on agriculture, forestry, fisheries, mining, and quarrying. Forecasting suggests all sectors in these regions have the potential to become leading industries. Balikpapan City and Samarinda City should optimize the service and industrial sectors, while Kutai Kartanegara District and Paser District must diversify beyond primary industries. This strategy supports inclusive and sustainable growth, aligning with the Sustainable Development Goals (SDGs) and shaping future IKN policies.

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INTRODUCTION

Economic development aims to benefit the general public by increasing economic growth in the region (Kurniawan, 2016). The island of Kalimantan was chosen as the location of the new national capital with careful formulation, along with the inauguration of the name of the capital city of Nusantara (Jubaidah & Isma, 2023). It is called the Nusantara because Indonesia consists of 13.487 islands and is the largest archipelago in the world (Siti et al., 2023).

The relocation of the national capital city is intended to achieve Indonesia's economic goals in 2045 by increasing the development of Eastern Indonesia to generate inclusive economic growth. Relating the national capital from Java Island to Kalimantan Island is expected to encourage equitable regional development and reduce the gap between Eastern Indonesia (KTI) and Western Indonesia (KBI), especially between Java Island and outside Java Island (Hariati & Saputri, 2022).

Sociologically, the Jokowi administration decided to move the national capital because there were factors that drove it, such as the predicted congestion in the next 40 years, flooding problems, and a 2 cm rising sea level. Experts predict that by 2050, 90 percent of North Jakarta will be submerged. In addition, air and water pollution and population density are increasing daily. Relocating the capital city is one of the solutions to overcome all the problems of the capital city (Jundi Zia Ulhaq et al., 2023).

For example, countries that have experienced capital city moves have benefited their economies. For example, Brazil, which moved from Rio De Jainero to Brasilia from 1957 to 1960, has a population that increased to 4,5 million (2019) compared to the population at the time of the first move, which was only about 136.000 people in 1960, and has a GDP of 51.715.862 dollars (2015). The relocation of Australia's national capital from Melbourne to Canberra from 1920 to 1989 showed growth, with a population that increased to 426.700 (2019), compared to an initial population of around 5.915 (1927), and a GDP that increased to 39.440.000 (2018) (Siti et al., 2023).

The existence of IKN itself encourages the surrounding areas also to clean up to welcome its existence (Jubaidah & Isma, 2023). The relationship between the growth center and its hinterland is interdependent in the regional system (Gulo, 2015). The IKN hinterland is a natural resource that can encourage dynamic economic interactions between IKN and its surrounding areas.

A comparison between Jakarta's hinterland and IKN provides important insights into how to optimize regional management. Consequently, it is important to understand how the hinterland helps the capital city. There are few previous studies on the role of the hinterland of the national capital. The area around Jakarta, which consists of Bogor, Depok, Tangerang, and Bekasi (Bodetabek), has become a center of metropolitan activity. The Jakarta area is the center of government and its surrounding cities, such as Bogor, Depok, Tangerang, and Bekasi, each of which contributes 20,85 percent to the GDP of Java Island (Simanjuntak et al., 2024).

There are four main IKN buffer areas consisting of Balikpapan City, Samarinda City, Penajam Paser Utara (PPU) District, and Kutai Kartanegara District (A Rustan & Darto Mariman, 2021). These four regions have diverse

economic characteristics. Kutai Kartanegara District is known for its rich natural resources, especially in the mining and quarrying sector, agriculture, livestock, forestry, fisheries, construction, and processing industry. The sectors that drive the growth of East Kalimantan Province in Balikpapan City are the three largest: Wholesale and Retail Trade, Car and Motorcycle Repair, Processing Industry, and Information and Communication. Balikpapan City experienced significant economic growth thanks to an increase in the capacity of processing industries such as Pertamina's oil refinery, the construction of access to IKN, the IKN core area, and the strengthening of infrastructure across Kalimantan. Samarinda City experienced a surge in the construction sector, which was marked by the construction of shopping centers, hotels, education and health facilities, and infrastructure such as roads and bridges. Penajam Paser Utara District, as one of the IKN core locations, is supported by supporting sectors, namely mining and quarrying, agriculture, forestry, fisheries, and the processing industry (Permatasari et al., 2024).

To optimize economic growth, it is necessary to conduct an in-depth analysis of the contribution of each sector to GRDP. The sectors that make the largest contribution can be considered as mainstay sectors that need to be continuously developed (Hajeri et al., 2015). In developing a region, the local government must know its potential and find which sectors are superior and competitive. A leading sector is a sector that has a major impact on the economic growth of a region (Rahardjanto, 2018).

This research is important to understand the leading sectors in the IKN hinterland to ensure the development of the new capital city is optimal and sustainable. This analysis supports the achievement of SDG 1 (poverty alleviation), SDG 8 (sustainable economic growth), and SDG 9 (resilient infrastructure). Synergies between leading sectors will improve economic competitiveness, community welfare, and environmental resilience.

As for some previous studies, such as those conducted by Jubaidah & Isma (2023) It is noted that Tarakan City and Bulungan District in North Kalimantan have great potential to support the new national capital city. Although economic growth shows a positive trend in leading sectors, the government must optimize sectors that contribute less to the new capital city. Endey (2022) identified seven base and eight prospective sectors in Gorontalo, with key sectors such as agriculture and education services supporting IKN. Although the primary sector dominates Gorontalo's economy, the export competitiveness of its leading commodities is quite strong. In East Kalimantan, Permatasari (2024) found that mining and quarrying were the leading sectors, while construction and services expanded significantly, thanks to IKN's strategic projects that reduced inter-regional inequality. Primastuti (2024) stated that South Sulawesi, especially Parepare, has great economic potential as a buffer for IKN. However, policies in this area have not fully supported preparations for the relocation of the capital city and are still focused on internal development.

A Rustan & Darto Mariman (2021) stated that the IKN buffer zones in East Kalimantan, such as Balikpapan, Samarinda, Penajam Paser Utara, and Kutai Kartanegara, are ready to support IKN by maximizing local economic potential through strengthening

infrastructure and optimizing resources. Penajam sub-district has excellent potential in coconut and oil palm commodities, which can be an economic driver through the plantation subsector, thanks to the large land area that supports economic growth (Wahyuni et. al., 2021). Balikpapan City excels in the processing industry and trade. At the same time, Samarinda stands out in the trade and services sector. Penajam Paser Utara and Kutai Kartanegara have great potential in the agriculture, energy, and food sectors to support the needs of IKN. The biggest security threat to IKN comes from the air, making it important to strengthen defense diplomacy and consider mitigation strategies in defense policy. Saputro (2022) identified the economic potential of IKN from two aspects: transmigration that boosted the agricultural and natural sectors, and Samarinda's greater economic potential compared to other cities in East Kalimantan. Yohanes et. al. (2017) state that selecting IKN locations is based on good infrastructure, access to major cities, and a diverse population. The right government policies can minimize the negative impacts of relocating the capital city. The research shows the economic potential in the IKN buffer zone and the need for policy synchronization to overcome challenges and maximize economic and security potential in Nusantara.

This research has a novelty in using overlay analysis tools to complement the LQ and DLQ methods to evaluate the linkages of leading sectors and potential sectors in the IKN hinterland area. Thus, the results are more comprehensive than previous studies, such as those by Jubaidah & Isma (2023) or Endey et al. (2022), which are limited to one region and have not considered inter-regional sectoral linkages.

This research is important to understand the base, potential, and leading sectors in the hinterland of IKN to ensure that the development of the new capital city is optimal and sustainable, and to provide a local potential-based policy framework that supports the economic resilience of IKN as the center of government and Indonesia's new economic agglomeration.

This study aims to analyze the leading sectors in the IKN hinterland area, the potential sectors in the IKN hinterland area, and the comparison of leading sectors in each IKN hinterland area from 2010 to 2023. The results will help regional economic development and support government policies towards the Golden Indonesia Vision 2045. These recommendations will help the government make effective plans to maximize the potential of the IKN hinterland for sustainable national development. Based on this background, the researcher is interested in conducting a study entitled "Comparative Analysis of Leading Sectors in the Hinterland Area of the Nusantara's Capital City".

RESEARCH METHODS

A descriptive quantitative method is used in this study with panel data type in the form of GRDP data in 4 IKN buffer regencies/cities, namely Balikpapan City, Samarinda City, Kutai Kartanegara District, and Paser District; and GRDP of East Kalimantan Province from 2010 to 2023. Secondary data is used in this study to analyze the data. According to Sugiyono (2016), secondary data is collected indirectly by data collectors, such as from documents or other parties. The object of this research is the economic sector (business field) in the buffer zone (hinterland) of the IKN, namely Balikpapan

City, Samarinda City, Kutai Kartanegara District, and Paser District, in the Gross Regional Domestic Product (GRDP) in the 2010–2023 time span.

In this study, GRDP data from 4 regencies/cities supporting IKN (Balikpapan City, Samarinda City, Kutai Kartanegara District, and Paser District) and GRDP data of East Kalimantan Province are used in the form of time series data. The data is obtained from the official website of the National Statistic Bureau (BPS) of each District/City and the BPS of East Kalimantan Province, which is compiled and published by official institutions.

Based on the research title that has been chosen, namely: "Comparative Analysis of Leading Sectors in the Hinterland Area of the Nusantara's Capital City", the author will use the variables described in Table 1.

Table 1. Variable Measurement

Variable	Measurement
GRDP of sector i in District/City	GRDP Constant by business field (million rupiah)
GRDP total of sector i in District/City	Total of GRDP Constant by business field (million rupiah)
GRDP of sector i in Province	GRDP Constant by business field (million rupiah)
GRDP total of sector i in Province	Total of GRDP Constant by business field (million rupiah)

Data Analysis Technique

This research uses Location Quotient (LQ) and Dynamic Location Quotient (DLQ) analysis to analyze the data to analyze the base sectors and potential sectors per the research objectives.

Location Quotient (LQ) Analysis

Location quotient (LQ) analysis, one of the simplest analytical tools, was used to help researchers answer the current problem formulation, such as determining the leading sector or base sector in the four IKN buffer districts or cities. In addition, this tool also helps answer additional questions and provides input for government policy-making and relevant stakeholders. LQ analysis is an indirect way to determine whether an area is a base or non-base sector. The following formulas can be used to calculate the LQ value:

$$LQ = \frac{Eij/Ej}{Ein/En} \qquad (1)$$

Description:

LQ : Location Quotient Index

Eij : GRDP of sector i in the 4 Hinterland Districts/Cities of IKN

Ej : GRDP total of sector i in the 4 Hinterland Districts/Cities of IKN

Ein : GRDP of sector i in East Kalimantan Province

En : GRDP total of sector i in East Kalimantan Province

Here are some criteria from the LQ calculation results:

1. LQ > 1 indicates that the sector is based or superior. In other words, the products produced by the sector are sufficient to fulfill the needs in their region and can also be exported to fulfill the needs in other regions.

2. LQ = 1 indicates that the sector is a non-base sector, as the products produced are only enough to fulfill local needs, with no surplus being shipped to other regions.

3. LQ < 1 indicates that the sector is a non-base sector, as the products are insufficient to fulfill local needs.

Dynamic Location Quotient (DLQ) Analysis

The Dynamic Location Quotient (DLQ) analysis technique is used to identify sectors with a faster or higher development potential and sectors with a slower or lower development potential. This analysis provides a dynamic picture of the changing potential of economic sectors in a region over time, thus helping to understand the future growth trends of leading sectors. (Anggraeni, 2022). DLQ analysis can be calculated through the following formula:

$$\text{DLQ} = \frac{(1+gj)/(1+Gj)}{(1+gi)/(1+Gi)} \qquad (2)$$

Description:

DLQ : Dynamic Location Quotient Index

gj : Pace of sector i development in the 4 Hinterland Districts/Cities of IKN

Gj : Average pace of sector i development in the 4 Hinterland Districts/Cities of IKN

gi : Pace of sector i development in East Kalimantan Province

Gi : Average pace of sector i development in East Kalimantan Province

Here are some criteria for the DLQ calculation results:

1. DLQ > 1 indicates that the growth of a sector in a regional area has a higher or faster potential than the growth of the same industry in the wider regional area (which overshadows it).

2. DLQ < 1 indicates that the growth potential of a sector in a region is lower or slower than that of the same industry in the region that oversees it.

Overlay Analysis

Overlay analysis is important in providing conclusions from the results of calculations carried out previously (Hendra Perdana, 2019). This process combines the results of several analysis methods, such as LQ and DLQ. The following are the provisions in the application of overlay analysis:

1. LQ analysis: If the LQ value is > 1, then the sector has a comparative advantage in the Region and is assigned a positive (+) value. This indicates that the sector fulfills local needs and contributes significantly to markets outside the region.

2. DLQ analysis: The DLQ method considers the change or growth of sectors in a particular Region over time. If the DLQ value is > 1, the sector shows high future growth potential compared to other Regions, and is assigned a positive (+) value.

Hertantingsih (2018) in Pragmadeanti & Rahmawati (2022) explained that the assessment of sectors in overlay analysis is in the form of positive (+) and negative (-) values. A sector with a positive value (+) is a superior sector, and if the sector has a negative value (-), then the sector is not superior.

A sector is considered superior if it has a positive value from both analyses (++). This approach provides a strong basis for economic sector development decision-making, considering comparative advantage, dynamic growth potential, and local and regional aspects (Suwarno & Sishadiyati, 2022).

RESULTS AND DISCUSSION

From the results of the LQ analysis in 4 IKN hinterland areas, it can be concluded that urban areas (Balikpapan City and Samarinda City) tend to have a more even base sector than the district area (Kutai Kartanegara District and Paser District). As seen in the table of LQ analysis results (Table 2) below, a stark contrast exists between the base sector owned by urban areas and district areas. This is because there are more opportunities for innovation and development of new sectors in urban areas, while districts tend to rely on traditional sectors such as agriculture and mining (Kemensetneg, 2022).

Table 2. LQ Analysis Results in 4 IKN Hinterland Areas

Business Fields	Average LQ Values			
	Balikpapan City	Samarinda City	Kukar District	Paser District
Agriculture, Forestry, and Fisheries	0,147	0,25	1,43	1,63
Mining and Quarrying	0,001	0,31	1,50	1,52
Processing Industry	2,398	0,33	0,12	0,18
Procurement of Electricity, Gas	1,685	3,00	0,88	0,46
Procurement of Water	1,563	3,54	0,66	0,41
Construction	1,755	2,77	0,78	0,32
Wholesale and Retail Trade, and Car and Motorcycle Repair	1,577	3,12	0,57	0,66
Transportation and Warehousing	2,634	2,43	0,30	0,15
Accommodation and Meal Provision	1,806	4,56	0,26	0,32
Information and Communication	2,346	2,86	0,47	0,50
Financial Services	2,247	5,10	0,18	0,24
Real Estate	1,933	3,08	0,51	0,35
Corporate Services	1,421	4,21	0,14	0,24
Administration, Defense, and Social Security Mandatory	0,742	3,68	0,72	0,59
Education Services	0,961	2,61	0,61	0,86
Health Services and Social Activities	0,976	2,42	0,99	0,72
Other Services	1,313	4,80	0,34	0,36

Source: Data processed, 2024.
Note: ▮ is the Base Sectors.

The results of the LQ analysis prove that in Balikpapan City, there are 12 leading sectors with an LQ value of more than 1 (>1). Not far from Balikpapan City, Samarinda City has more base sectors, namely 14 sectors. Meanwhile, two districts, namely Kutai Kartanegara District and Paser District, have only two base sectors. However, the forecast analysis of potential sectors shows that all sectors in each district/city in the IKN hinterland area have the potential to become a base sector in the future. This can be seen from the Dynamic Location Quotient (DLQ) analysis results in Table 3.

The results of the DLQ analysis indicate that each sector in the 4 IKN hinterland areas has great potential to be developed into a base sector. This is evidenced by the average value of DLQ for each sector in each IKN hinterland area that is greater than 1 (>1). Sectors previously indicated in the results of the LQ analysis were indicated as non-base, which can be developed into base sectors in the future. Of course, this can

positively impact both the economy of the IKN hinterland area and other areas. In addition to meeting their region's needs, sectors included in the base category can also meet the needs of other regions in this context of IKN.

Table 3. DLQ Analysis Results in 4 IKN Hinterland Areas

Business Fields	Average DLQ Values			
	Balikpapan City	Samarinda City	Kukar District	Paser District
Agriculture, Forestry, and Fisheries	1,048	1,055	1,017	1,074
Mining and Quarrying	1,121	65,547	1,048	1,095
Processing Industry	1,047	1,054	1,095	1,162
Procurement of Electricity, Gas	1,030	1,029	1,047	1,077
Procurement of Water, Waste Management, Waste, and Recycling	1,093	1,046	1,084	1,054
Construction	1,147	1,018	1,044	1,081
Wholesale and Retail Trade, and Car and Motorcycle Repair	1,021	1,043	1,020	1,018
Transportation and Warehousing	1,030	1,102	1,045	1,107
Accommodation and Meal Provision	1,023	1,009	1,054	1,079
Information and Communication	1,021	1,050	1,010	1,016
Financial Services	1,006	1,027	1,052	1,051
Real Estate	1,039	1,049	1,053	1,041
Corporate Services	1,027	1,018	1,038	1,036
Administration, Defense, and Social Security Mandatory	1,048	1,034	1,134	1,034
Education Services	1,010	1,061	1,044	1,076
Health Services and Social Activities	1,068	1,056	1,130	1,056
Other Services	1,052	1,007	1,035	1,024

Source: Data processed, 2024.

Table 4. Overlay Analysis Results in Balikpapan City

Business Fields	LQ	DLQ	Desc.
Agriculture, Forestry, and Fisheries	-	+	Non-leading
Mining and Quarrying	-	+	Non-leading
Processing Industry	+	+	Leading
Procurement of Electricity, Gas	+	+	Leading
Procurement of Water, Waste Management, Waste, and Recycling	+	+	Leading
Construction	+	+	Leading
Wholesale and Retail Trade, and Car and Motorcycle Repair	+	+	Leading
Transportation and Warehousing	+	+	Leading
Accommodation and Meal Provision	+	+	Leading
Information and Communication	+	+	Leading
Financial Services	+	+	Leading
Real Estate	+	+	Leading
Corporate Services	+	+	Leading
Administration, Defense, and Social Security Mandatory	-	+	Non-leading
Education Services	-	+	Non-leading
Health Services and Social Activities	-	+	Non-leading
Other Services	+	+	Leading

Source: Data processed, 2024.

The overlay results show that Balikpapan City has 13 leading sectors. These sectors include the manufacturing industry, transportation and storage, wholesale and retail trade, financial services, and information and communication. This shows that Balikpapan has

a relatively advanced and diversified economic structure. This advantage aligns with its position as the central industrial, trade, and logistics city in East Kalimantan and its proximity to the IKN core area.

Table 5. Overlay Analysis Results in Samarinda City

Business Fields	LQ	DLQ	Desc.
Agriculture, Forestry, and Fisheries	-	+	Non-leading
Mining and Quarrying	-	+	Non-leading
Processing Industry	-	+	Non-leading
Procurement of Electricity, Gas	+	+	Leading
Procurement of Water, Waste Management, Waste, and Recycling	+	+	Leading
Construction	+	+	Leading
Wholesale and Retail Trade, and Car and Motorcycle Repair	+	+	Leading
Transportation and Warehousing	+	+	Leading
Accommodation and Meal Provision	+	+	Leading
Information and Communication	+	+	Leading
Financial Services	+	+	Leading
Real Estate	+	+	Leading
Corporate Services	+	+	Leading
Administration, Defense, and Social Security Mandatory	+	+	Leading
Education Services	+	+	Leading
Health Services and Social Activities	+	+	Leading
Other Services	+	+	Leading

Source: Data processed, 2024.

Samarinda city has 16 leading sectors, the largest number compared to other regions. Almost all sectors are comparatively superior and have growth potential. This reflects the condition of Kota Samarinda as a center for economic growth and public services, especially in the services sector. Strengths in the financial services, corporate services, education, and health sectors indicate that Samarinda has great potential as a service center supporting IKN in the future.

Table 6. Overlay Analysis Results in Kutai Kartanegara District

Business Fields	LQ	DLQ	Desc.
Agriculture, Forestry, and Fisheries	+	+	Leading
Mining and Quarrying	+	+	Leading
Processing Industry	-	+	Non-leading
Procurement of Electricity, Gas	-	+	Non-leading
Procurement of Water, Waste Management, Waste, and Recycling	-	+	Non-leading
Construction	-	+	Non-leading
Wholesale and Retail Trade, and Car and Motorcycle Repair	-	+	Non-leading
Transportation and Warehousing	-	+	Non-leading
Accommodation and Meal Provision	-	+	Non-leading
Information and Communication	-	+	Non-leading
Financial Services	-	+	Non-leading
Real Estate	-	+	Non-leading
Corporate Services	-	+	Non-leading
Administration, Defense, and Social Security Mandatory	-	+	Non-leading
Education Services	-	+	Non-leading
Health Services and Social Activities	-	+	Non-leading
Other Services	-	+	Non-leading

Source: Data processed, 2024.

Unlike the cities, Kutai Kartanegara District only has two leading sectors: agriculture, forestry, and fisheries, as well as mining and quarrying. These two sectors show the dominance of the natural resource-based economy. Although all sectors have positive DLQ values (growth potential), the low LQ values indicate that most sectors currently do not play a major role in the local economy. Therefore, Kutai Kartanegara needs an economic diversification strategy to be less dependent on the primary sector.

Table 7. Overlay Analysis Results in Paser District

| Business Fields	LQ	DLQ	Desc.
Agriculture, Forestry, and Fisheries	+	+	Leading
Mining and Quarrying	+	+	Leading
Processing Industry	-	+	Non-leading
Procurement of Electricity, Gas	-	+	Non-leading
Procurement of Water, Waste Management, Waste, and Recycling	-	+	Non-leading
Construction	-	+	Non-leading
Wholesale and Retail Trade, and Car and Motorcycle Repair	-	+	Non-leading
Transportation and Warehousing	-	+	Non-leading
Accommodation and Meal Provision	-	+	Non-leading
Information and Communication	-	+	Non-leading
Financial Services	-	+	Non-leading
Real Estate	-	+	Non-leading
Corporate Services	-	+	Non-leading
Administration, Defense, and Social Security Mandatory	-	+	Non-leading
Education Services	-	+	Non-leading
Health Services and Social Activities	-	+	Non-leading
Other Services	-	+	Non-leading

Source: Data processed, 2024.

Like Kutai Kartanegara, Paser District only has two leading sectors, namely agriculture, forestry, and fisheries, as well as mining and quarrying. This shows that Paser's economic structure is still highly dependent on the primary sector. Although other sectors have DLQ values > 1 (indicating growth potential), LQ values < 1 indicate that their current contribution is still low. To support the development of IKN, the Paser District needs to start encouraging the development of secondary and tertiary sectors.

The subchapter following discussion will explain the base and potential sectors in each district/city of the IKN hinterland area.
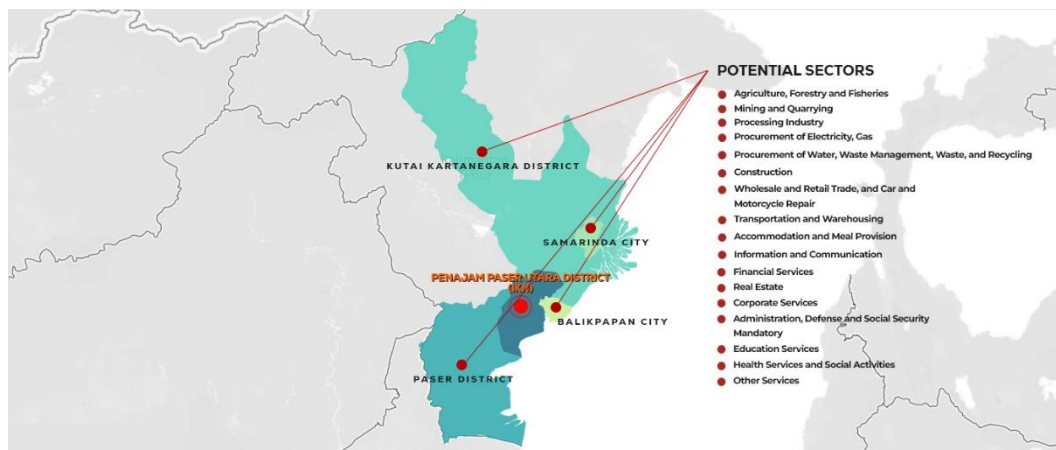
Based on the LQ, DLQ, and Overlay analysis results, each region's base, potential, and leading sectors can be visualized in the base sector distribution map.

Figure 1. Map of the Distribution of the Base Sector in the IKN Hinterland Areas
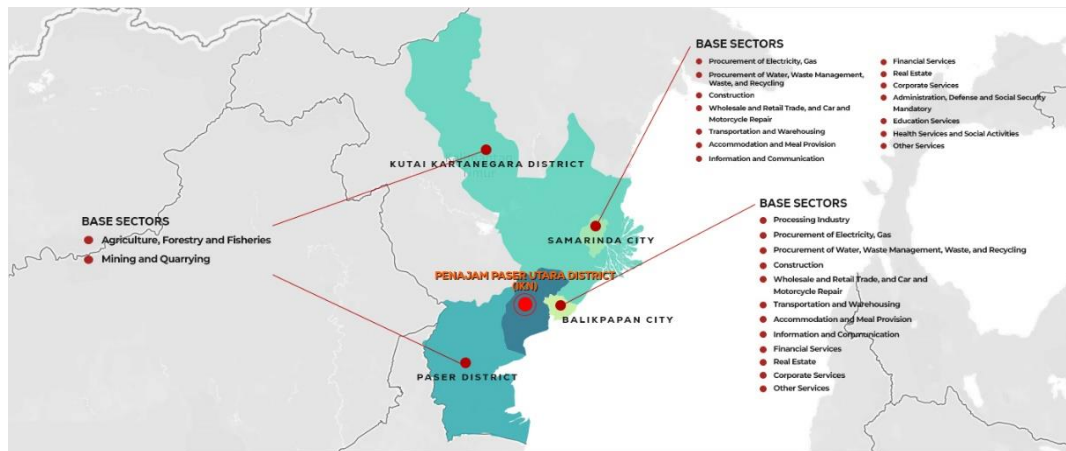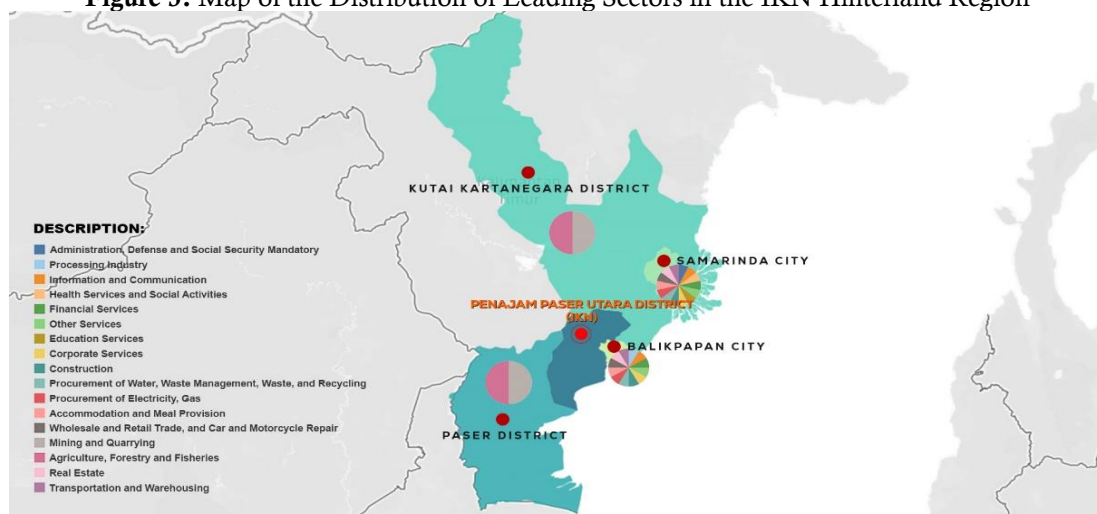

Source: Data processed, 2024.

Figure 2. Map of the Distribution of Potential Sectors in the IKN Hinterland Region

Source: Data processed, 2024.

Figure 3. Map of the Distribution of Leading Sectors in the IKN Hinterland Region

Source: Data processed, 2024.

Identification of Base, Potential, and Leading Sectors in Balikpapan City

Balikpapan City has 12 base sectors. While all industries, including non-base industries, have the potential to become base industries in the future. With an LQ value of 2.634, the city's Transportation and Warehousing sector is the most superior. This is because Balikpapan is an export-import center throughout East Kalimantan Province. Kariangau Port and Semayang Port function as main transportation hubs that serve the flow of goods and passengers, including direct calls abroad, thereby increasing trade volume (Ariadi, 2023; Limas et al., 2021). In addition, Balikpapan City has a good transportation infrastructure, including Sultan Aji Muhammad Sulaiman Sepinggan International Airport and a port that supports the mobility of goods and people. In 2022, the airport served nearly 3 million domestic passengers and 1.102 international flights, indicating high transportation activity. This robust infrastructure attracts more investment and improves logistics efficiency.

In addition, Balikpapan City has a good transportation infrastructure, including Sultan Aji Muhammad Sulaiman Sepinggan International Airport and a port that supports the mobility of goods and people. In 2022, the airport served nearly 3 million domestic passengers and 1.102 international flights, indicating high transportation activity. This robust infrastructure attracts more investment and improves logistics efficiency.

In addition to the Transportation and Warehousing sector, the Processing Industry sector, the Information and Communication sector, and the Financial Services sector have an LQ value above 2, which shows an advantage over other base sectors, which only have an LQ value of 1 on average. Balikpapan City has one of the largest processing industries, namely petroleum processing by Pertamina Refinery Unit (RU) V Balikpapan, which supplies up to 26 percent of national fuel needs. Then, in the Information and Communication sector, the plan to implement smart ports (Limas et al., 2021) has the potential to improve the efficiency of public services. In the financial services sector, Balikpapan shows financial system stability and good performance; Third-Party Fund (DPK) growth of 23,11% (yoy) and credit growth of 11,53% (yoy) in 2023 (Kaltimkita, 2023). This shows the dynamic activity of the financial services sector.

The result of overlay analysis combining LQ and DLQ reinforces the finding that Balikpapan City not only has excellent sectors at present, but also has great potential to grow in the future. There are 13 leading sectors (LQ > 1 and DLQ > 1), mainly in the manufacturing industry, transportation and warehousing, and financial services. This confirms that Balikpapan has a strong, diversified economic structure and is ready to support the logistics and industrial needs of the IKN development. Strategic infrastructure such as export-import ports, oil refineries, and international airports further strengthens this position.

This study's results align with Anggraeni (2022) and Yulianti et al. (2020), who also concluded that there are 12 base sectors and five non-base sectors in Balikpapan City.

Identification of Base, Potential, and Leading Sectors in Samarinda City

There are 14 base sectors in Samarinda City, while all existing sectors have great potential to become base sectors in the future. The Financial Services Sector is the most superior in Samarinda City with an LQ value of 5,10. With such a large LQ value, the Financial Services sector is the most promising sector to be re-optimized. The Samarinda City Government actively supports the development of the financial services sector through various policies and programs. Collaboration between the government, the private sector, and the community is key to strengthening economic resilience and revival in this sector (Bappeda Kaltim, 2024). The Service Sector (LQ 4,80) is the second most superior sector in Samarinda City. The city of Samarinda has developed infrastructure that supports the growth of the service sector, including accessibility to health services and education. Good infrastructure makes it easier for people to access various services that the service sector offers. The Accommodation and Food and Beverage Provision Sector (LQ 4,56) is the third most superior sector. The reason is that the city of Samarinda is known as a tourist destination, thus increasing the number of domestic and foreign tourist visits. This has a direct impact on the demand for accommodation and dining services.

Based on the results of the overlay analysis, Samarinda City has the largest number of leading sectors compared to other hinterland areas, with 16 sectors. This reflects that the economy of Samarinda is very competitive and that almost all sectors have significant growth potential. The superiority of the financial services, trade, accommodation, education, and health sectors shows that Samarinda plays an important role as a center of services and economic activity that will be needed to support the presence of IKN in the future.

The results of this study are in line with research by Widiarani et al. (2021) which concluded that the Accommodation and Food and Beverage Provision sector is included in the largest base sector in Samarinda City.

Identification of Base, Potential, and Sectors in Kutai Kartanegara District

There are only two base sectors in Kutai Kartanegara District, namely agriculture, forestry, and fisheries, as well as mining and quarrying, according to the results of LQ's analysis. His average LQ values are 1,43 and 1.50, respectively. However, the entire sector could become a base sector in the future, according to the results of the DLQ analysis. Due to the limitations of economic diversification, there are only a few base industries in the Kutai Kartanegara District. Other sectors, such as services and processing, have great potential, but their growth is still relatively slow compared to the two main base sectors. This may be due to a lack of investment, infrastructure, and policy support to develop the non-base sector. (Ferdian et al., 2021; Novitasari, 2016). Kutai Kartanegara's natural resources are abundant, especially in the mining sector. Mining and quarrying are leading sectors because they greatly affect the local economy, encourage economic growth, and contribute to regional GDP (Kukarkab, 2024).

The overlay results show that although only two sectors have LQ > 1, almost all other sectors have DLQ > 1, meaning that these sectors

have positive growth prospects. Kutai Kartanegara has great economic potential that has not been optimized. This indicates the need for strategic planning to encourage the growth of non-primary sectors through infrastructure development and policy support, so that the economy is not only dependent on agriculture and mining.

The results of this study align with the research by Novitasari (2016), which concluded that there are two base sectors in Kutai Kartanegara District, namely the Agriculture, Forestry, and Fisheries sectors, and the Mining and Quarrying sector.

Identification of Base, Potential, and Leading Sectors in Paser District

According to the results of the LQ analysis, Paser District has only two base sectors: agriculture, forestry, and fisheries, as well as mining and quarrying. However, like the other three IKN hinterland areas, each sector in the Paser District has the potential to develop into a base sector in the future. The characteristics are similar to those of Kutai Kartanegara District because both have potential natural resources in the mining sector. Kutai Kartanegara is known for its mineral resources, while Paser also has the same potential, although it is better known for its agriculture and fisheries sectors. Paser is also rich in mineral resources, especially coal and sand. Coal mining activities in this area are quite significant and contribute significantly to the Regional Original Revenue (PAD) and the Regional Revenue and Expenditure Budget (APBD) (Marsila, 2023).

According to data published by the National Statistic Bureau (Badan Pusat Statistik/BPS) of Paser District, these two base sectors indeed occupy the first and second positions as the sectors that contribute the most to the GDP of Paser District. The Agriculture, Forestry, and Fisheries sectors were recorded in 2020 to contribute 12.68%; in 2021, they contributed 11.86%; in 2022, they contributed 10.64%; and in 2023, they contributed 13.56% to the GDP of Paser District. Meanwhile, the Mining and Quarrying Sector in 2020 contributed 67.55%; in 2021, by 71.07%; in 2022, by 76.35%; and in 2023, by 67% of the GDP of Paser District. It is undeniable that these two sectors are based in this district.

The overlay results for Paser District also show a similar trend to Kutai Kartanegara. Although there are currently only two dominating base sectors (agriculture and mining), all other sectors show DLQ values > 1, indicating potential for future growth. Therefore, Paser District needs to start developing other supporting sectors, such as the processing industry, logistics, or services, to be integrated into the regional economic system that sustainably supports the existence of IKN.

The results of this study align with the results of research by Sari et al. (2020), which also concluded that in the Paser District, there are two base sectors, namely the Agriculture, Forestry, and Fisheries sectors, and the Mining and Quarrying sector.

The decision to designate East Kalimantan as the location of the Capital City of the Archipelago (IKN), replacing Jakarta, is based on considerations of its vast area, relatively low level of natural disaster risk, and its strategic position in the center of the Indonesian archipelago. International experience with capital city relocation offers a crucial

comparative perspective in understanding the potential impacts and challenges that may be faced by the IKN hinterland areas, including Balikpapan City, Samarinda City, Kutai Kartanegara District, and Penajam Paser Utara District, which are the focus of this study.

As an illustration, the relocation of South Korea's administrative center from Seoul to Sejong indicates the potential for economic transformation in the region surrounding the new capital city. Similarly, the relocation of Malaysia's administrative center to Putrajaya, despite its proximity to Kuala Lumpur, provides a lesson on the importance of careful planning to encourage the growth of new sectors in the buffer zone. The US experience with Washington, D.C., and New York highlights the dynamics of the division of functions between the center of government and the economic center, which is relevant to the development of IKN and its hinterland areas. Brasilia and Ankara also provide examples of how capital city relocations can trigger the development of specific sectors in the new and surrounding areas (Siti et al., 2023).

In contrast, the failure of Canberra in Australia to create a significant regional development impact, as well as the limited positive effect of Putrajaya in addressing Kuala Lumpur's problems, underscores the importance of in-depth analysis of the unique characteristics and potential of the IKN hinterland. This research, focusing on identifying leading and potential sectors through LQ, DLQ, and overlay analysis, seeks to provide an empirical basis for a different and more targeted strategic planning. The aim is that the development of IKN can trigger sustainable and diversified economic growth in Balikpapan, Samarinda, Kutai

Kartanegara, and Penajam Paser Utara, not only relying on existing sectors, but also developing the potential of the identified sectors for the future. The discussion of the research findings will draw on these international experiences to identify specific opportunities and challenges in the context of the IKN hinterland region.

CONCLUSION

The conclusions of this study are:

1. The results of the LQ analysis prove that in Balikpapan City, there are 12 leading sectors with an LQ value of more than 1 (>1). Not far from Balikpapan City, Samarinda City has more base sectors, namely 14 sectors. Meanwhile, two districts, namely Kutai Kartanegara District and Paser District, have only two base sectors. The cities of Balikpapan and Samarinda have the service sector (finance, information, and communication) and the processing industry as the leading sectors. Kutai Kartanegara and Paser Regencies have leading sectors in agriculture, forestry, fisheries, mining, and quarrying.

2. The results of the analysis of potential sector forecasting, namely all sectors in each District/City in the IKN hinterland area, have the potential to become a base sector in the future. This indicates an excellent opportunity for economic diversification in each region.

3. From the results of the LQ analysis in 4 IKN hinterland areas, urban areas (Balikpapan City and Samarinda City) tend to have a more even base sector than the district area (Kutai Kartanegara District and Paser District). Urban areas tend to have superior

sectors in the service and industrial sectors, indicating a more advanced and diverse economic diversification. On the other hand, the district area is still heavily dependent on primary sectors such as agriculture and mining.

4. The results of overlay analysis show that the IKN hinterland areas have significant variations in leading sectors. Kota Balikpapan has 13 leading sectors, reflecting a diversified economic structure and supporting its role as a trade center. Samarinda City stands out with 16 leading sectors, especially in the services sector, which shows great potential as a service center for IKN. In contrast, Kutai Kartanegara District and Paser District have only two leading sectors based on natural resources, indicating dependence on the primary sector. To support the development of IKN, these two districts need to implement economic diversification strategies to reduce this dependency and encourage the development of secondary and tertiary sectors.

The suggestions or recommendations for development policies in the IKN hinterland area:

1. To reduce dependence on the primary sector, Kutai Kartanegara and Paser Regencies must increase economic diversification by concentrating on the growth of tourism, services, and small and medium industries. Meanwhile, the cities of Balikpapan and Samarinda must continue to develop the service industry and industry. To support these sectors, it is necessary to improve the quality of human resources.

2. More intensive development of the service and trade sectors is needed to support the capital city as an agglomeration center. The establishment of an integrated business center will encourage investment and economic growth. Focusing on small and medium enterprises (MSMEs) will boost the local economy and create jobs. To attract tourists and increase economic diversification, the potential of local tourism must be explored. Thus, IKN can become a dynamic economic center, which is not only the center of government

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