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Sambas Regency Leading Economic Sector Measurement: Klassen Typology And Shift-Share Analysis

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Abstract. *Economic growth refers to the development of an area's economy. The Sambas district, located in Kalimantan Barat Province and home to two cross-border posts, requires careful planning for its development programs in this strategically important area. This study aims to identify the economic sectors with the highest priority in Sambas Regency, which can be the focus of local economic development. Using Gross Regional Domestic Product data and quadrant analysis of Klassen typology and shift-share analysis, the results indicate that the Agriculture, Forestry, and Fishing sector is a priority sector for development without neglecting other sectors. This study significantly enhances the understanding of regional economic sectors and contributes meaningfully to the development of the local economy, particularly in Sambas Regency.*

Keyword: *dynamic location quotient, economic growth, klassen typology, sambas regency, shift-share analysis.*

Abstraksi. *Pertumbuhan ekonomi menggambarkan perkembangan perekonomian suatu daerah. Kabupaten Sambas, yang terletak di Provinsi Kalimantan Barat dan merupakan rumah bagi dua pos lintas batas negara, memerlukan perencanaan yang matang dalam program pembangunannya di kawasan penting yang strategis ini. Penelitian ini bertujuan untuk mengidentifikasi sektor-sektor ekonomi dengan prioritas tertinggi di Kabupaten Sambas yang dapat menjadi fokus pengembangan ekonomi lokal. Dengan menggunakan data Produk Domestik Regional Bruto dan analisis kuadran tipologi Klassen dan analisis shift-share, hasil menunjukkan bahwa sektor Pertanian, Kehutanan, dan Perikanan merupakan sektor yang dapat diprioritaskan untuk dikembangkan tanpa mengabaikan sektor lainnya. Hasil penelitian ini mampu memberikan peningkatkan kajian sektor perekonomian daerah dan memberikan kontribusi yang signifikan terhadap pemahaman dan pengembangan perekonomian lokal khususnya di Kabupaten Sambas.*

Kata kunci: *dynamic location quotient, kabupaten sambas, klassen typology, pertumbuhan ekonomi, shift-share analysis.*
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INTRODUTION

Economic growth is commonly regarded as an indicator of community welfare in a given area (Alabshar et al., 2023; Miar et al., 2024). It is expected that an increase in economic growth will lead to an increase in people's welfare, resulting in a more developed and prosperous area. According to the theory of economic bases, economic sectors can be divided into two groups: base and non-base sectors. According to the theory, the demand

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for goods and services from the external market is the main driver of economic growth in a region (Arsyad, 1999).

Sambas Regency is a district located on the border of Kalimantan Barat Province. Its population is expected to reach 648.181 thousand people in 2023, and it covers an area of 6,394.70 km². Sambas Regency's location is strategically advantageous due to its two cross-border posts with neighboring countries in Paloh District and Sajingan Besar (Aruk) District (BPS Kabupaten Sambas, 2023). As a result, the local and central governments place special emphasis on Sambas Regency as the gateway to economic activity and trade with neighboring countries. Sambas Regency has a unique feature in the form of Kebun Raya Sambas. The botanical garden was established to increase the number of ex-situ conservation areas for plants in Indonesia. The primary purpose of this area is to conserve plants that are typical of West Kalimantan (Vinsensia et al., 2020; Widhanarto et al., 2023). Additionally, Kebun Raya Sambas aims to become a potential tourist destination in Sambas Regency (Dito et al., 2022).

In 2022, the Gross Regional Domestic Product (GRDP) structure in Sambas Regency, measured at constant market prices by sectors, is dominated by the Agriculture, Forestry and Fishing sector, accounting for 35.19 percent of the total. This is followed by the Wholesale and Retail Trade; repair of Motor Vehicles, and Motorcycles sector, which accounts for 17.26 percent, and the Manufacturing sector, which accounts for 12.30 percent. In addition, 14 other Industry each contributed below 7 percent (BPS Kabupaten Sambas, 2023). The dominance of these three sectors in the GRDP raises the question: are they superior sectors for development, or are there other economic sectors that require more attention?

If a region can meet its own needs and export goods to other regions, it is considered a base sector of the economy. The base sector is also known as a leading sector because it plays a significant role in the economic growth of a region (Modes & Hidayah, 2021). To evaluate export activity in a region, the local economic base can be used. This can help project economic growth and its impact on other fields (Soepono, 2001). The base sector is the main driver of regional growth. Economic supplies or exports from one region to another can accelerate the growth of the region (Ridwan, 2016). The base sector also influences the development of the non-base sector, leading to a multiplier effect on the economic activities of the area.

Several evaluation models have been developed to assess the leading and the competitiveness of a region's economic sector (Sun, 2024). One of them is Location Quotient (LQ), which is used to identify the basic economic sector. LQ is a measure of a region's contribution to a sector, whether the region requires it and therefore needs to purchase it, or whether it has a surplus in that sector (Schaffer, 2020).

The Dynamic Location Quotient (DLQ) method is a modification of the LQ method that considers variables related to the gradual growth rate of economic sector output (Nugroho, 2010). By combining the LQ and DLQ methods, we can assess the role of a sector in the

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economy and its prospects for the future. DLQ results indicate the potential for a sector to serve as the foundation of the economy in the future.

Alternatively, the shift-share method can provide a more comprehensive measurement approach (Arcelus, 1984). The Shift-share Growth Model is a mathematical decomposition of the increase in added value that occurs in a region during a certain period. This decomposition helps to identify the main factors that determine the process of economic growth in the area (Pradana, 2019). Therefore, a better understanding of the productivity of a given area is possible.

Previous research has been conducted in various regions. Paizal et al. (2023) examined the primary economic sector in Sambas district from a Shariah economic perspective. Pribadi & Nurbiyanto (2021) conducted a similar study on leading sectors, comparing Lampung Tengah Regency to Lampung Province. Additionally, Zainuri (2021) conducted an analysis comparing Lombok Tengah Regency with Nusa Tenggara Barat Province.

The primary issue addressed in this study is the need for a targeted approach to economic development in Sambas Regency. Despite its strategic location, particularly with two cross-border posts, the region has not yet fully harnessed its economic potential. The absence of a clear identification of the sectors with the greatest potential for development hampers the formulation of effective and sustainable policies. As a result, local economic sectors remain underdeveloped, and opportunities for employment and societal welfare improvement are missed. Consequently, a detailed analysis is essential to identify priority sectors that can serve as catalysts for economic growth. Without this critical insight, the development strategies implemented may be inefficient, thus hindering the region's economic competitiveness and its capacity to improve overall societal well-being.

The aim of this study is to identify the leading economic sectors in Sambas Regency that can be the focus of local economic development. By understanding these sectors, policymakers can design more effective strategies to enhance economic competitiveness and societal welfare.

The novelty of this study lies in its innovative application of Klassen Typology and Shift-share quadrant analysis, which enriches the understanding of regional economic dynamics and sectors. This dual-method approach offers fresh insights, specifically tailored to Sambas Regency, which can aid in both academic and policy contexts. By focusing on the local economy, the study not only deepens theoretical comprehension but also directly informs strategic policy-making, enabling local governments and businesses to create sustainable economic development strategies, optimize local resources, and boost employment and societal welfare.

RESEARCH METHODS

This study utilizes data on GRDP sourced from the Statistics of Kalimantan Barat Province and the Statistics of Sambas Regency for the years 2018-2022. GRDP, as defined by the Central Statistics Agency, represents the gross value added generated by all economic sectors within a region. Value added is the value obtained during the production

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process from the combination of raw materials and production factors. We used Microsoft Excel to form and process the GRDP. The GRDP data is used because it eliminates the impact of inflation or price changes on the calculation. Additionally, GRDP growth can serve as an indicator of the economic growth rate for a particular region or for specific sectors from year to year.

The Location Quotient (LQ) and Dynamic Location Quotient (DLQ) methods were used to determine the base sector and potential sector in Sambas Regency. The results of the LQ and DLQ analysis were used to group base sectors according to the Klassen typology. Subsequently, a shift-share analysis was carried out to measure the growth performance and the competitiveness of Sambas District.

Location Quotient and Dynamic Location Quotient

The location quotient (LQ) method is one of the ways in which the economic basis of a region can be determined. LQ analysis assesses the role of a region as a provider or a consumer of certain economic sectors or activities (Schaffer, 2020). To identify the primary sector, which measures the relative concentration of economic activity, LQ analysis is employed to define the base sector of economic activity (Jumiyanti, 2018).

The LQ Method uses the following formula (Isserman, 1977):

$$LQ = \frac{(XiJ)/(RVj)}{(Xi)/(RV)} \quad \text{..... (1)}$$

where,

LQ = LQ coefficient sector i district j
Xij = GRDP sector i in district j
Xi = GDRP sector I at provincial/district reference level j
RVj = total GDRP of district j
RV = total GRDP at provincial/district reference level j

The DLQ method uses the following formula:

$$DLQ = [\frac{(1+gij)/(1+gj)}{(1+gip)/(1+gp)}]^n \quad \text{..... (2)}$$

where,

DLQ = DLQ coefficient sector I in district j
gij = average GRDP Growth Sector I in District j
gj = average growth of total GRDP in district j

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gip = average GRDP growth in sector I at provincial level p
gp = average growth of total GRDP at provincial level p
t = time (year)

If the LQ calculation results indicate a value greater than 1, it means that the population growth rate of the observed sector in that area is higher than the growth rate of the same sector in the area being used as a reference (Alfani et al., 2020; Iglesias, 2021). This suggests that the sector forms the base sector of an area's economy. If the LQ calculation result is less than 1, it indicates that the economic growth rate of the observed sector in a district or area is slower than the growth of the same sector in the reference region, meaning that the sector is not the economic base in the area (Iglesias, 2021).

The Dynamic Location Quotient (DLQ) analysis is an alternative to complement the LQ analysis. It is used to identify changes in the specialization and competitive advantage of economic sectors within a region over time. The analysis can indicate increases or decreases in LQ development over time (Hidayat & Supriharjo, 2014). A DLQ value greater than 1 (one) suggests that the investment sector in the area has the potential for improvement or has the potential to become an economic base sector. Conversely, a DLQ value lower than 1 (one) indicates that the maturity sector in the area is not potential or prospective for development (Langi et al., 2021; Praja, 2023).

Quadrant Analysis of Klassen Typology

The quadrant analysis of the Klassen typology method, is an economic analysis tool that can be used to classify economic sectors (Saputro & Putri, 2022; Sjafrizal, 2008). The approach groups sectors based on their growth and contribution to the GRDP for analysis (Elpisah et al., 2021). To conduct economic growth analysis of regions, districts, or cities, provincial economic data can be used for comparison. Klassen's typology analyses reveal the growth position and share of sectors, subsectors, businesses, or commodities that form regional variables (Kurniati, 2020). The Klassen classification chart comprises four areas of economic sector projections formed from the calculation of LQ and DLQ values (Nurfani et al., 2020; Rahmadiansyah et al., 2023), which result from the combination of both values (Figure 1).

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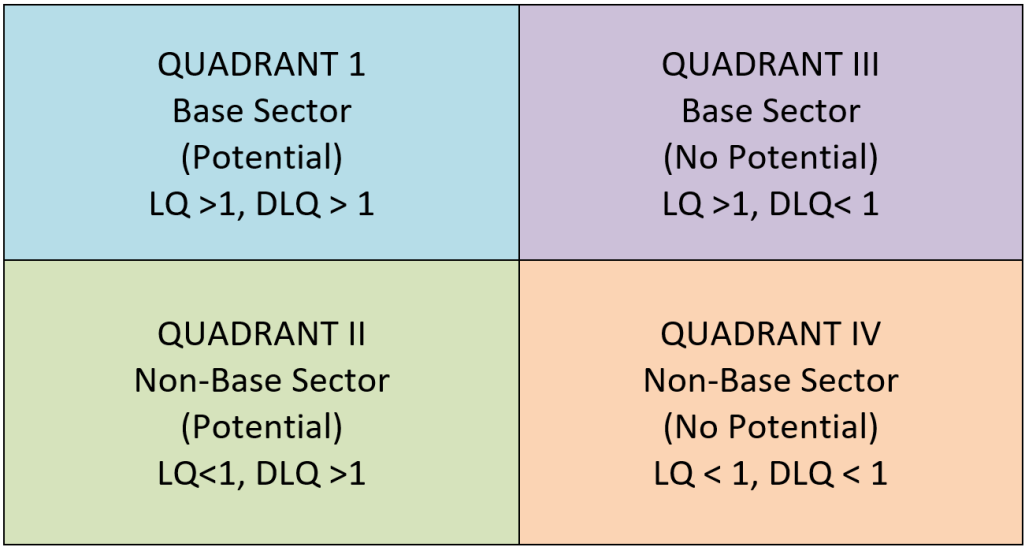

Figure 1. Klassen Typology Chart
Source: Adapted from Pribadi & Nurbiyanto (2021)

Shift – share Analysis

Shift-share analysis is a method used to measure the productivity of a region. It divides a region's economic growth into three parts and calculates the contribution of each part (Curtis, 1972). The purpose of shift-share analysis is to compare the economic growth rate of a region with that of a wider area, such as districts or cities (Bangun, 2018; Goschin, 2014). Shift-share analysis is a valuable tool for policymakers and an analysis used to highlight the most competitive and vulnerable sectors of a region's economy, especially in Indonesia (Sjafrizal, 2018). This information can form as the basis for more precise hypotheses and policy responses (Montanía et al., 2023).

Shift-share analysis involves two components: proportional growth (PP) and market share growth (PPW). Proportional growth (PP) is calculated based on the growth of economic activity in a region over a certain period of time (Page, G. W., & Patton, 1991). A positive PP indicates that the sector's growth rate is higher than that of other sectors. Market share growth (PPW) is calculated based on the level of economic growth in a region compared to other regions. PPW is calculated based on the economic growth level of a region compared to others, indicating its competitiveness. Ananda (2018) stated that the speed of growth is determined by comparative strengths, market accessibility, institutional support, socio-economic infrastructure, and local economic policies.

Shift share calculation formula:

$$PPij = (Ri - Ra) \times Yij$$

$$PPWij = (rij - Ri) \times Yij$$

$$Ra = \frac{\Delta Yp' - \Delta Yp}{\Delta Yp}$$

$$Ri = \frac{Yip' - Yip}{Yip}$$

$$rij = \frac{Yij' - Yij}{Yij}$$

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where,

Ra = GRDP Ratio in Province p
ΔYp′ = Total GRDP of the province p in the last year of observation
ΔYp = Total GRDP province p in the base year of observation
Ri = GDRP ratio sektor i di Province p
Yip′ = Economic sector i in Province p in the last year of observation
Yip = Economic sector i in Province p in the base year of observation
rij = GRDP ratio of sector i in district j
Yij′ = Economic sector i in district j in the final year of observation
Yij = Economic sector i in district j in the base year of observation
PPij = Proportional growth of sector i in district j
PPWij = Growth in the share of sector i areas in district j

According to Mahrita et al. (2016) and Sofi (2020), the shift-share quadrant can be represented in quadrant form by using a combination of PP and PPW values. The results of the shift-share analysis are used to classify economic sectors based on their growth and competitiveness, as demonstrated in Figure 2.

QUADRANT I **Fast Growth, Competitivene PP(+) PPW (+)**	**QUADRANT III** **Fast Growth, Uncompetitivene PP (+) PPW (-)**
QUADRANT II **Slow Growth, Competitivene PP (-) PPW (+)**	**QUADRANT IV** **Slow Growth, Uncompetitivene PP (-) PPW (-)**

Figure 2. Shift-Share Quadrant.
Source: Adapted from Sofi (2020)

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RESULT AND DISCUSSION

Klassen Typology

The Klassen Typology processing produces 5 base sectors in Sambas Regency, along with 7 additional potential sectors that are intersected by the base sectors, as seen in Table 1. LQ indicates whether the sector is a base sector, while DLQ indicates its potential.

Table 1.
LQ and DLQ Calculation Results
In Sambas Regency

INDUSTRY	LQ	DLQ	FINAL INTERPRETATION
Agriculture, Forestry and Fishing	1,49	1,21	**Base, Potential**
Mining and Quarrying	0,18	0,03	Non Base, No Potential
Manufacturing	0,77	0,76	Non Base, No Potential
Electricity and Gas	0,43	0,02	Non Base, No Potential
Water Supply, Sewerage, Waste Management and Remediation Activities	0,45	1,64	Non Base, Potential
Construction	0,68	1,79	Non Base, Potential
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycle	1,19	0,88	Base, No Potential
Transportation and Storage	0,63	3,48	Non Base, Potential
Accommodation and Food Service Activities	0,89	0,31	Non Base, No Potential
Information and Communication	1,07	1,06	**Base, Potential**
Financial and Insurance Activities	0,75	0,52	Non Base, No Potential
Real Estate Activities	1,15	0,84	Base, No Potential
Business Activities	0,82	0,64	Non Base, No Potential
Public Administration and Defense; Compulsory Social Security	0,82	2,10	Non Base, Potential
Education	1,14	1,15	**Base, Potential**
Human Health and Social Work Activities	0,79	0,57	Non Base, No Potential
Other Services Activities	0,83	0,58	Non Base, No Potential

Source: Author's calculation

The quadrant classification will be obtained based on the values of the LQ and DLQ from Table 1. The base and potential sectors are considered leading sectors that are worthy of development, while the non-base and non-potential sectors are non-leading sectors, which are classified in quadrant form, as shown in Figure 3.

Figure 3 shows quadrant 1, which consists of potential base sectors, namely the Agriculture, Forestry and Fishing sector, the Information and Communication, and the Education sector. Developing these sectors can significantly improve the regional economy as these sectors are base sectors and have potential.

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Quadrant 2, on the other hand, consists of 4 potential sectors, namely the Water Supply, Sewerage, Waste Management and Remediation Activities sector, the Construction, the Transportation and Storage, and the Public Administration and Defense; Compulsory Social Security sector, which are potential but not base sectors. In the opinion of Riantika & Utama (2017), it is important to identify and develop potential sectors to enhance the effectiveness and efficiency of the development process.

Quadrant I **Base Sectors, Potential** ➢ Agriculture, Forestry and Fishing ➢ Information and Communication ➢ Education	**Quadrant III** **Base Sectors, No Potential** ➢ Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycle ➢ Real Estate Activities
Quadrant II **Non-Base Sectors, Potential** ➢ Water Supply, Sewerage, Waste Management and Remediation Activities ➢ Construction ➢ Transportation and Storage ➢ Public Administration and Defense; Compulsory Social Security	**Quadrant IV** **Non-Base Sectors, No Potential** ➢ Mining and Quarrying ➢ Manufacturing ➢ Electricity and Gas ➢ Accommodation and Food Service Activities ➢ Financial and Insurance Activities ➢ Business Activities ➢ Human Health and Social Work Activities ➢ Other Services Activities

Figure 3. Economic Sector Classification of Sambas Regency 2018-2022
Based on the Klassen Typology.
Source: Author's calculations

As Figure 3 shows that the Agriculture, Forestry and Fishing sector are both fundamental and have potential. These results support the research of Modes & Hidayah (2021) who also obtained the same results by comparing the region of Kalimantan Barat with the national region. In this research, the Information and Communication sector and Education sector are also included in quadrant I. Despite the fact that Sambas District is part of Kalimantan Barat Province, Modes & Hidayah (2021) obtained slightly different results by classifying the two sectors in quadrants 2 and 3.

Shift-share Analysis

Shift-share analysis was used to examine the economic growth of Sambas Regency in relation to the reference area, namely the economic growth of Kalimantan Barat Province. Table 2 indicates that Proportional Growth (PP) has both positive and negative values. A Proportional Growth value above zero represents a sector that is advanced and growing faster than other sectors as a whole. The PPW is measured on the level of economic growth

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of a region in comparison with other regions and is an indication of its competitiveness. There are seven sectors with positive PP, the three largest of which are the Information and Communication sector, the Human Health and Social Work Activities, and the Agriculture, Forestry, and Fishing sector. Another way to measure growth is through Market Share Growth (PPW), which indicates the competitiveness of a sector in a Sambas Region compared to a comparative region, in this case, Kalimantan Barat Province. There are five sectors with positive PPW, the three largest being the Transportation and Storage sector, the Public Administration and Defense; Compulsory Social Security, and the Agriculture, Forestry, and Fishing sector.

Table 2.
PP and PPW Calculation Results
In Sambas Regency

INDUSTRY	PP (Billion)	PPW (Billion)
Agriculture, Forestry and Fishing	33.72	4.28
Mining and Quarrying	25.79	-31.97
Manufacturing	20.23	-60.21
Electricity and Gas	0.77	-1.46
Water Supply, Sewerage, Waste Management and Remediation Activities	1.14	0.13
Construction	-80.25	-10.59
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycle	-31.41	-34.52
Transportation and Storage	-52.42	33.21
Accommodation and Food Service Activities	-27.26	-10.44
Information and Communication	133.12	-24.43
Financial and Insurance Activities	-44.32	-10.03
Real Estate Activities	-22.26	-6.26
Business Activities	-0.27	-2.04
Public Administration and Defense; Compulsory Social Security	-51.31	11.76
Education	-46.77	2.03
Human Health and Social Work Activities	130.83	-38.02
Other Services Activities	-7.71	-4.60

Source: Author's calculation

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The sectors are grouped into four quadrants based on their growth rate and competitiveness. Quadrant 1 includes sectors with fast and competitive growth, quadrant 2 includes sectors with slow but competitive growth, quadrant 3 includes sectors with fast growth but low competitiveness, and quadrant 4 includes sectors with slow growth and low competitiveness, as shown in Figure 4.

Figure 4 of the shift-share quadrant reveals two sectors that exhibit both fast growth and high competitiveness: the Agriculture, Forestry and Fishing sector and the Water Supply, Sewerage, Waste Management and Remediation Activities sector. The rapid growth of Agriculture, Forestry and Fishing sector is presumably due to the fact that Sambas regency has the largest production of coffee and oranges in Kalimantan Barat Province. According to Statistics of Kalimantan Barat Province (2023), the Sambas district is projected to produce three tons of coffee and five tons of oranges in 2022, which represents the largest share of coffee and oranges in the Kalimantan Barat Province.

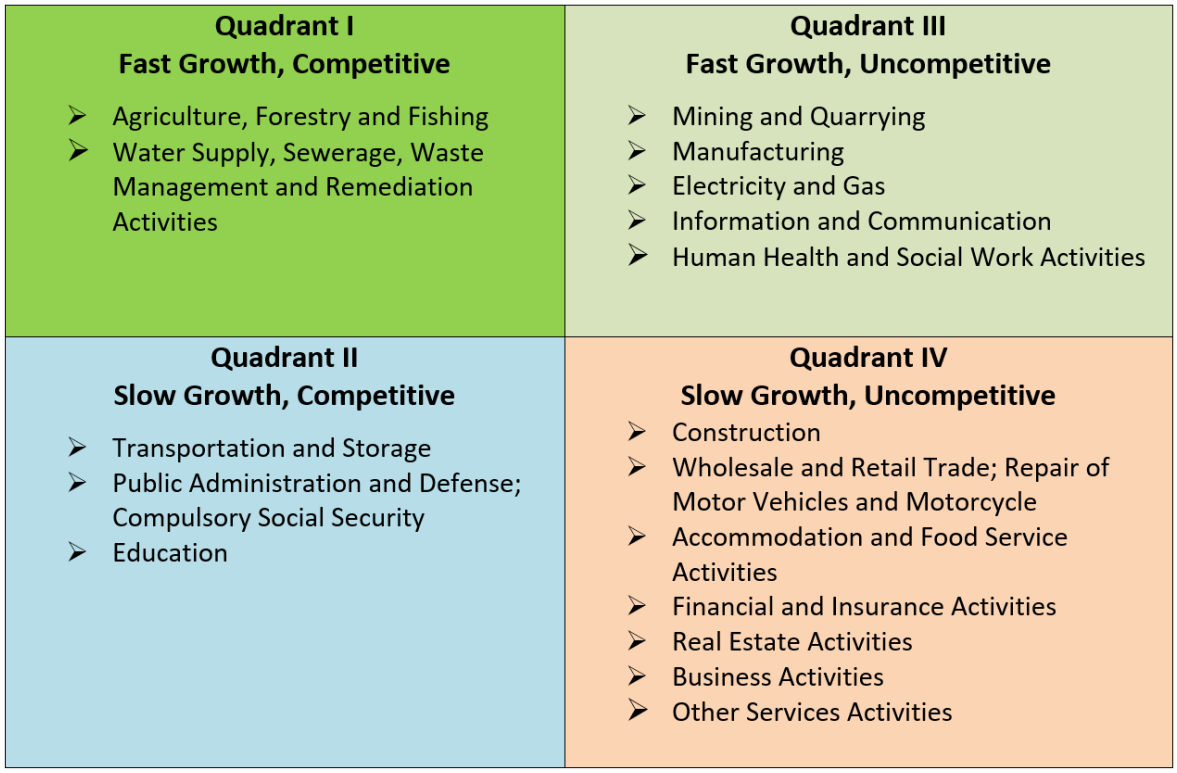

Figure 4. Shift-Share Quadrant of Sambas Regency Economic Sector in 2018-2022
Source: Author's calculation

The Water Supply, Sewerage, Waste Management and Remediation Activities sector also represent fast-growing and highly competitive sectors. The development of this sector is expected to be supported by a government program, namely the flagship Pamsimas (Program Penyediaan Air Minum dan Sanitasi Berbasis Masyarakat / Community-Based Drinking Water and Sanitation Provision Program) program, launched by the Government of Sambas Regency. This program aims to address the significant water needs in Sambas

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Regency, including irrigation, drinking water, and clean water (Alkautsar et al., 2021; Ismanto et al., 2021; Jumhur, 2015).

The findings of classification based on Klassen Typology and Shift-share show that the Agriculture, Forestry and Fishing sector is the sector in quadrant 1 in both study results. This sector is an obvious area of superiority and can be used as a focus for development (Satyahadewi et al., 2023).

The Agriculture, Forestry, and Fishing sector is identified in Quadrant 1 based on the results of Klassen Typology and Shift-share analysis. This finding can be attributed to the role of Sambas Regency as a significant production area for Siamese oranges, widely known across Indonesia as "Pontianak oranges" (Darmansyah et al., 2017; Kristiandi et al., 2021; Setiawan & Suhendra, 2014). These results further reinforce the recognition of this sector as both a competitive and high-potential driver of regional economic development.

Local government policies have supported this sector's development, as exemplified by the issuance of *Keputusan Bupati Sambas* Number 163 A of 2001, which designated oranges as a flagship commodity of the region (Bupati Sambas, 2001; Setiawan & Suhendra, 2014). Furthermore, The government of Sambas Regency is making efforts to enhance orange production as a key regional characteristic, a move that is further bolstered by the support of the Indonesian Minister of Agriculture. This initiative is formalized through *Permentan* Number 830/Kpst/RC.040/12/2016, which highlights the strategic development of oranges as a leading commodity in the region. Such initiatives underscore the commitment to strengthening regional agricultural productivity, particularly focusing on commodities that are integral to the local economy and identity (Kristiandi et al., 2021; Menteri Pertanian RI, 2016).

The Agriculture, Forestry and Fishing sector seems to be one of the significant sectors in Kalimantan Barat Province, including in Sambas district. Its importance has increased further after the Covid-19 pandemic (Aamir Shahzad, 2022). Our findings are in line with the findings of Modes & Hidayah (2021) and Trisna & Nadia (2023), which showed that the Agriculture, Forestry and Fishing sector is one of the leading ones in Kalimantan Barat Province. Meanwhile, in Sambas district, our findings are supported by Wiliandari & Aggraini (2023), who stated that the Agriculture, Forestry and Fishing sector is the dominant sector in Sambas district. Similarly, Paizal et al. (2023) also mentioned that the Agriculture, Forestry and Fishing sector is a basic and competitive sector in Sambas district.

Additionally, we also found that the Information and Communication sector and Education sector in the Klassen Typology classification and the Water Supply, Sewerage, Waste Management, and Remediation Activities sector in the Shift-share quadrant are also located in quadrant 1, although they are not present in both results. These sectors cannot be ignored, even though they are not in quadrant 1 in both analyses, and can still be prioritized. According to Modes & Hidayah (2021), the Water Supply, Sewerage, Waste Management, and Remediation Activities sector is one of leading sectors in Kalimantan Barat Province. Meanwhile, the Information and Communication sector is advanced and growing rapidly (Kurniawati, 2021). This study can help to focus and plan the development

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sector more effectively. Economic growth can be accelerated by focusing on regions with potential and adequate facilities (Alabshar, 2020; Gulo, 2015). This is because regional progress indirectly motivates people to seek a better quality of life in the area.

CONCLUSION

According to the Klassen Typology, the Agriculture, Forestry and Fishing sector, the Information and Communication, and the Education sector are the base and potential sectors (located in quadrant 1). While the shift-share analysis indicates that the Agriculture, Forestry and Fishing sector and the Water Supply, Sewerage, Waste Management and Remediation Activities sector are the sectors with fast growth and competitive (located in quadrant 1). The Agriculture, Forestry and Fishing sector is the only sector in quadrant 1 in both results, suggesting that it is the superior sector that can be used as a focus for development, without neglecting other sectors. By prioritizing The Agriculture, Forestry and Fishing as a leading sector and focus of development, Sambas Regency can optimize its natural resource potential, improve community welfare, and create a sustainable positive impact on regional economic development.

The limitations of this study are does not comprehensively take into account external factors that may influence changes in the regional economy, such as government policies or macroeconomic conditions. Furthermore, it has not considered the linkages among economic sectors and the effects of enhancing an economic sector. To address this, further research can use Input-Output Table Analysis to identify the relationship across economic sectors and the effects of improving a sector on general economic performance, while also considering external factors. Furthermore, discussions on non-leading sectors and how government interventions are aimed at improving these non-leading sectors should be considered in the framework of future research to fully understand the potential for broader regional economic growth. This will provide a more comprehensive understanding of the economic sectors in Sambas Regency.

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