Economics Development Analysis Journal Vol. 13 (4) (2024)



Economics Development Analysis Journal



http://journal.unnes.ac.id/sju/index.php/edaj

Maintaining The Leading Economy of The City of Semarang

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Article Information Abstract

History of Article Received July 2024 Accepted September 2024 Pusblished November 2024

Keywords: Development, city economy, competitiveness, leading sectors, specialization. The economic position of a city is crucial for the sustainability of regional economic development. To enhance competitiveness and achieve economic excellence, a combination of simultaneous drivers is necessary. As the core city of the Kedungsepur agglomeration, Semarang City plays a strategic role in regional development. This study employs a quantitative methodology, utilizing the Location Quotient (LQ) technique with data sourced from the Central Bureau of Statistics (BPS). The findings indicate that Semarang City's economic transformation, characterized by competitiveness and specialization in the trade, real estate, and public service sectors, requires support from surrounding regions to maximize its role in driving sustainable economic growth. Additionally, the study identifies the city's prime sectors—trade, real estate, public services, and transportation and warehousing—highlighting their contribution to generating high-added value amid global economic dynamics. Despite its economic diversification, Semarang City remains heavily reliant on the manufacturing industry due to its substantial sectoral contribution. Therefore, while manufacturing remains a key pillar of the local economy, identifying new growth potentials and fostering collaborative strategies within the agglomeration area is essential for longterm economic resilience. Semarang City possesses significant potential for sustainable growth by distributing the benefits of development to its surrounding regions, reinforcing its role as a regional economic driver.

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ISSN 2252-6560

INTRODUCTION

The economic development of cities has long been a central focus of regional growth, as cities function as agglomeration centers that drive economic expansion. With their diverse amenities, cities attract in-migration due to higher wages, increased employment opportunities, and improved urban facilities (Essien, 2023). The economic benefits of urban development often extend beyond boundaries, generating a spread effect that fosters regional economic growth.

Several forms of spread effects contribute to this phenomenon. First, the expansion of settlements in adjacent areas occurs as land availability in the core city becomes increasingly constrained. Second, the growth of economic services in surrounding areas is driven by trade relations between the core city and its hinterland. Third, the development of processing industries in peripheral regions is facilitated by establishing new industries or expanding existing ones into areas with more affordable land prices while maintaining accessibility to the core city. Additionally, Ticău (2023) emphasizes that population growth, and consequently market potential, is not confined to the core city but extends to surrounding regions, further stimulating economic activity.

Semarang City plays a central role in Central Java and the Kedungsepur Agglomeration Area, which includes Kendal Regency, Demak Regency, Semarang Regency, Semarang City, Salatiga City, and Grobogan Regency. As the core city of the agglomeration, Semarang holds strategic significance, particularly due to the presence of Tanjung Emas Port and Ahmad Yani Airport, which serve as key transportation hubs for export and import activities. Additionally, the city's accessibility is enhanced by the toll road network, further reinforcing its vital role in regional economic development and integration.

The manufacturing, trade, and property sectors primarily drive Semarang City's economy. The city is widely recognized for its chemical, food and beverage, and herbal industries, establishing strong business foundations across Indonesia. However, the

expansion of these sectors has become increasingly constrained due to geographic challenges, such as recurrent flooding and land subsidence in recent years. Over the past decade, the manufacturing sector has gradually lost its status as the city's base sector, with industrial shifting to surrounding areas. activities Consequently, Semarang City's economy has strengthened in trade, public services, transportation, and warehousing.

The economic significance of Semarang City is reflected in its substantial contribution to the Gross Regional Domestic Product (GRDP) of the Central Java (Kedungsepur) agglomeration, as illustrated in Figure 1 below.

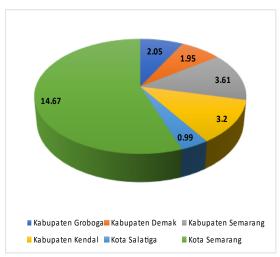


Figure 1. Gross Regional Domestic Product of Central Java

Source: BPS Data Processed, 2024

Economic linkages between spatially proximate regions enhance urban competitiveness. Several studies by Liu et al. (2022), Rastvortseva (2022), Zhao et al. (2022), Kong (2022), and Guo & Liu (2022) have identified the positive economic correlations between neighboring regions and their various benefits for urban economic development. These interregional interactions—encompassing sectors such as finance, transportation, energy, investment, healthcare services, and education (including vocational training and higher education)—contribute to more robust urban development and may help reduce income inequality across regions.

However, urban growth can also generate negative spillover effects, particularly in peri-

urban areas, known as the backwash effect. A study by Ticău et al. (2023) found that increased investment in peri-urban areas can affect the quality of life and environmental sustainability. Similarly, Essien (2023), in an analysis of urbanization in Nigeria, emphasized the necessity of integrating industrialization with urban growth to prevent an economic structure overly reliant on consumption rather than production. Another key concern is reducing agricultural land due to urban expansion, posing significant risks to environmental sustainability. Nasi et al. (2022) advocate for a multi-perspective approach involving government, businesses, and local communities to enhance competitiveness while ensuring sustainable development. Strengthening local governance capacity is essential to supporting competitiveness while protecting peri-urban areas, preserving environmental sustainability, harmonizing urban expansion with local cultural values, and improving institutional frameworks and public administration.

The spatial economic growth of Semarang City faces challenges related to its natural carrying capacity, particularly the diminishing land surface. This issue is especially pronounced in the coastal regions, notably Tanjung Emas Harbor. Addressing these constraints is crucial, as the port drives the city's economic growth. Additionally, population density in Semarang City varies due to spatial factors. The population remains concentrated in lower-lying areas such as East Semarang, Gayamsari, Semarang, South Semarang, and North Semarang, potentially straining environmental carrying capacity due to high density.

Sustainable economic development is positively correlated with regional competitiveness. Kouskura (2024) asserts that regional competitiveness is one of the most critical components for achieving sustainable local development. In alignment with this perspective, this study aims to analyze the current economic development patterns of Semarang City and identify its future growth potential. This is achieved by assessing the competitiveness of various economic sectors, both in their role within the Kedungsepur

agglomeration and their contribution to overall regional development.

While the link between sustainable economic development and competitiveness is well established, research on the mechanisms through which sustainability initiatives influence regional competitiveness remains limited. Furthermore, the role of different economic sectors, policy interventions, and institutional frameworks in shaping this relationship—particularly in the context of developing regions and emerging economies—requires further exploration.

RESEARCH METHODS

This study employs a quantitative descriptive methodology using secondary data from the Central Bureau of Statistics. The research follows a multi-stage analytical approach. First, a descriptive statistical analysis is conducted to present the economic position of Semarang City and its role within Kedungsepur agglomeration. Second, competitiveness of economic sectors Semarang City is assessed through Location Quotient (LQ) analysis, shift-share analysis, and Klassen Typology. In the third stage, data and findings are triangulated with a literature review to provide a comprehensive understanding of the city's current and potential future economic development patterns.

The Location Quotient (LQ) analysis is used to transform cross-sectional data by comparing the output of a particular sector or industry at the local level with the output of the same sector or industry at the national level (Fracasso & Marzetti, 2018). This analysis's results serve to identify a region's leading sectors or industries (Iglesias, 2021). Thus, LQ analysis is an important tool in understanding a sector's specific contribution to a particular region's economy.

The shift-share analysis is applied to determine the competitive sectors of the economy by examining the shifts in economic activity over time (Braičić et al., 2024). This decomposition method calculates regional competitiveness and specialization effects by comparing sectoral growth rates at the regional

and national levels using the Esteban-Marquillas approach (Montanía et al., 2023). The results provide insights into regional economic dynamics and help identify sectors with the potential for competitive growth.

Klassen Typology analysis categorizes economic sectors into four classifications based on their characteristics (Katti, 2019). This method helps determine sectors with strong investment potential (Yusuf & Dewanti, 2023). By integrating LQ, shift-share, and Klassen Typology analyses, this study offers a comprehensive evaluation of the competitiveness and economic potential of Semarang City.

Sebayang (2024) describes the equations in Location Quotient (LQ), Shift-Share, and

Klassen Typology analysis. The results of the LQ analysis are then categorized into three categories: If the LQ value > 1 indicates that the region is a basic sector. This means that the level of specialization of a district or city is higher than the provincial level, if the LQ < 1, it indicates that the region is a non-base sector, i.e. a sector that is less specialized than the provincial level, and if LQ = 1, it indicates that the level of specialization of the district or city is the same as the provincial level.

Esteban Marquillas's shift-share analysis serves to measure competitive advantage and specialization, which can be displayed with the following equation:

Table 1. Esteban Marquillas Shift-Share Classification

No.	r _{ij} - r _{in}	\mathbf{E}_{ij} - $\mathbf{E'}_{ij}$	Competitive Advantage	Specialization
1	> 0	> 0	$\sqrt{}$	$\sqrt{}$
2	> 0	< 0	$\sqrt{}$	x
3	< 0	> 0	X	\checkmark
4	< 0	< 0	X	X

Source: Sebayang, (2024)

The regional classification in shift-share analysis includes regions with both a competitive and specialized advantage, regions with a competitive advantage but not specialized, regions that lack a competitive advantage, and regions with neither a competitive advantage nor specialization. Meanwhile, Klassen Typology analysis determines the growth position and sectoral share of economic activities, including sectors, subsectors, businesses, or commodities that shape regional economic dynamics. The following equation can represent this analysis:

Table 2. Esteban Marquillas Shift-Share Classification

Sectoral	Sectoral Growth		
Contribution	Si S>	Si < S	
Ski > Sk	Prime Sector	Emerging Sector	
Ski < Sk	Potential Sectors	Underdeveloped Sector	

Source: Sebayang, (2024)

Where, Si is regional sector growth analysis, S is benchmark region sector growth, Ski is regional sector contribution analysis, Sk is contribution of reference region sector

RESULTS AND DISCUSSION

This research employs a holistic approach integrating various aspects of the city's economic development to enhance sustainable competitiveness. By understanding Semarang City's strategic position within the regional context and agglomeration dynamics, this study presents a conceptual framework incorporating strategic issue adoption, economic position mapping, and competitiveness renewal as essential steps in promoting sustainable economic growth. The approach extends beyond theoretical analysis, emphasizing strategic applications that address urban development challenges in an increasingly competitive environment.

The Kedungsepur Agglomeration consists of interrelated and mutually supportive economic activities across Kendal Regency, Demak Regency, Semarang Regency, Semarang City, and Grobogan Regency. As the core of this agglomeration, Semarang City benefits from strategic locational advantages, particularly its well-developed urban infrastructure, which facilitates various value-added activities. This advantage is reflected in several key indicators in which Semarang City excels, including Gross Regional Domestic Product (GRDP), per capita income, investment value, number of banks, local revenue, and other economic measures.

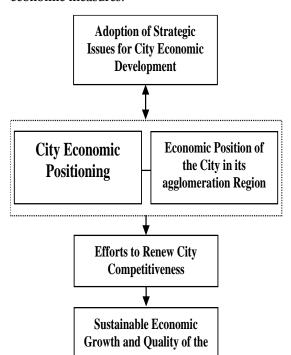


Figure 2. Conceptual Framework of City Economic Development Source: BPS Data Processed, 2024

The city's economic development generates a trickle-down effect on the surrounding region. This is evident in the increasing economic role of nearby areas, including Semarang Regency, Demak, and Kendal, which have advanced in the processing industry sector. Beyond industrial growth, residential development has expanded into hinterland areas, supported by the growth of the real estate and construction sectors. These

developments are reflected in the region's economic growth over the past five years, as shown in Figure 3 below.

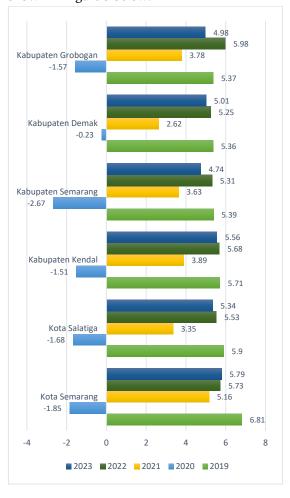


Figure 3. Economic Growth in the Kedungsepur Agglomeration Region 2019-2023 Source: BPS Data Processed, 2024

The figure above indicates that the agglomeration region's economy has begun to recover from its slump in 2020. agglomeration areas experienced growth, although per capita income in Semarang City remains the highest. However, Semarang City also has the highest unemployment rate and income inequality the Kedungsepur in agglomeration region, as shown in Figure 4 below:

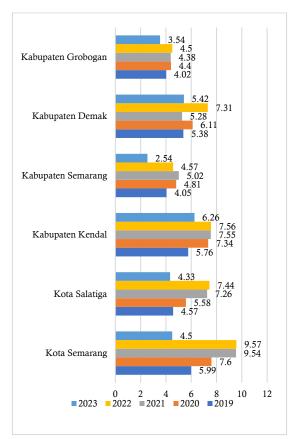


Figure 4. Unemployment Rate in Kedungsepur Agglomeration Region 2019-2023

Source: BPS Data Processed, 2024

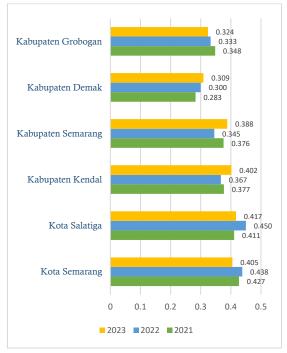


Figure 5. Gini Ratio in Kedungsepur Agglomeration Area 2021-2023 Source: BPS Data Processed, 2024

The statistical developments in the figure above indicate that various economic challenges often accompany regional economic growth. In this case, economic growth is also linked to regional inequality. Therefore, the government must implement policies that ensure equitable access to increased per capita income for all societal groups and across all areas of the region.

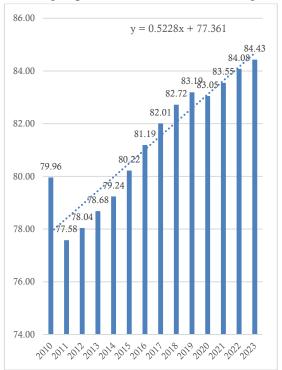


Figure 6. Trend of HDI in Semarang City Source: BPS Semarang City, 2024

The Human Development Index (HDI) is a key indicator for assessing the quality of regional development. Since 2016, Semarang City has achieved an excellent quality of life, with an HDI score exceeding 80.

Semarang City is characterized by a strong contribution from the manufacturing sector, although the growth of other leading sectors has been highly dynamic. Over the past decade, Semarang City's economy has maintained a dominant role within the Kedungsepur agglomeration. An analysis of the economic structure, based on base and non-base sectors, reveals that 10 out of 17 sectors in the city's GRDP (58.82%) are classified as base sectors. However, despite the manufacturing sector's significant contribution to the region's GRDP, it has not maintained its status as a base sector over the past ten years. The sectors that continue to serve as a base include government administration, corporate services, real estate, financial services, transportation and warehousing, wholesale and retail trade, water supply and waste disposal, and electricity and gas.

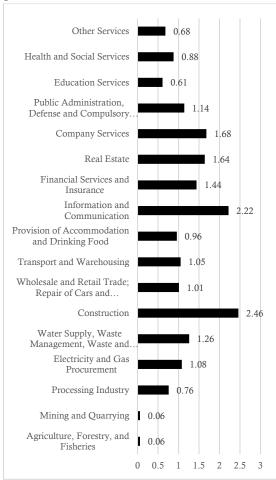


Figure 7. Location Quotient Analysis Source: BPS Data Processed, 2024

The average Location Quotient (LQ) values over the period for each base sector in Semarang City are as follows: Electricity and Gas (1.08), Water Supply, Sewerage, Waste Management, and Remediation Activities (1.26), Construction (2.46), Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles (1.01), Transportation and Storage (1.05), Information and Communication (2.22), Financial and Insurance Activities (1.44), Real Estate (1.64), Business Services (1.68), and

Government Public Administration, Defense, and Compulsory Social Security (1.14). These ten sectors represent the primary industries with competitive advantages and the capacity to drive Semarang City's economy.

Semarang has multiple economic sectors with high LQ values, reflecting its strategic role in regional economic growth. Key drivers of the city's economy include the Construction, Information, and Communication sectors. The strong performance of the construction sector indicates that physical development in Semarang City continues to grow faster than the Central provincial average. This sector's attractiveness stimulates various constructionrelated businesses, with infrastructure projects providing significant added value to the city's economic development. The prominence of the Information and Communication sector highlights Semarang City's position as a hub for technology and digitalization in Central Java, reinforced by the increasing adoption of digital services. The strength of the Corporate Services and Financial and Insurance sectors reflects the city's robust service industry, supported by the expansion of financial and office-related businesses that drive economic activity. Given the importance of these sectors, the government and stakeholders must promote innovation and investment to enhance Semarang City's competitiveness further. These base sectors define the city's economic identity, serving local needs and those of the surrounding areas.

Conversely, seven economic sectors in Semarang City have LQ values below one (LQ < 1), indicating lower specialization than the provincial level. These sectors include Agriculture, Forestry, and Fishing (0.06), Mining and Quarrying (0.06), Manufacturing (0.76), Accommodation and Food Service Activities (0.96), Education (0.61), Human Health and Social Work Activities (0.88), and Other Service Activities (0.68). The low LQ value in the Agriculture, Forestry, and Fishing sectors indicates that Semarang City's economy is now predominantly driven by the tertiary sector, including services technology-based and industries, rather than primary sectors. This trend

aligns with the ongoing shift of agricultural land in Semarang City, which is increasingly being repurposed for industrial development. Although these sectors are not the primary economic drivers, they still contribute to Semarang City's economic diversification.

Semarang City has undergone rapid economic transformation, with a clear shift toward the tertiary sector. Despite this transition, the manufacturing sector contributes significantly to the city's value-added output, accounting for more than 25% of the total. A shift-share analysis of Semarang City's Gross Regional Domestic Product (GRDP) highlights the economic growth dynamics that underscore the sector's strategic role in the city's economy. The results of the analysis are presented in Table 3 below.

Table 3. Shift-Share Analysis

Business Fields	Competitive Advantage	Specialization	
Agriculture,		Not	
Forestry, and Fisheries	Not Leading	Specialized	
Mining and Quarrying	Not Leading	Not Specialized	
Manufacturing Industry	Leading	Not Specialized	
Electricity and Gas Procurement Water Supply,	Not Leading	Specialized	
Waste Management, Waste and Recycling	Not Leading	Specialized	
Construction	Not Leading	Specialized	
Wholesale and	8	P	
Retail Trade; Repair of Cars	Leading	Specialized	
and Motorcycles Transport and Warehousing Provision of	Not Leading	Specialized	
Accommodation and Drinking	Not Leading	Specialized	
Information and Communication Financial	Not Leading	Specialized	
Services and Insurance	Not Leading	Specialized	

Business Fields	Competitive Advantage	Specialization
Real Estate	Leading	Specialized
Company Services	Not Leading	Specialized
Public		
Administration,		
Defense, and	Leading	Specialized
Compulsory		
Social Security		
Education	Not Leading	Not
Services	110t Leading	Specialized
Health and Social	Not Leading	Not
Services		Specialized
Other Services	Not Leading	Not Specialized

Source: BPS Data Processed, 2024

The findings indicate that three leading sectors serve as the competitive advantage and specialization of Semarang City: Wholesale and Retail Trade, Repair of Cars and Motorcycles, Real Estate, Public Administration, Defense, and Compulsory Social Security. These sectors play a crucial role in Semarang City's economy, reflecting its position as the commercial hub of Central Java and the provincial capital. Trade in Semarang City benefits from the presence of Tanjung Emas Port, the fourth busiest port in Indonesia, which facilitates economic activity and strengthens the city's role in regional trade.

Identification through Klassen's typology suggests that the manufacturing sector still holds growth potential despite the limited land available for industrial expansion in Semarang City. Additionally, the health and social services sector has been identified with growth potential. Other sectors with promising prospects include electricity and gas supply, water supply and waste management, construction, information and communication, financial and insurance services, and corporate services. These sectors positive demonstrate investment development opportunities, contributing to the city's overall economic competitiveness.

Table 4. Klassen Typology Analysis

Prime Sectors	Emerging Sectors		
Wholesale and Retail:	Manufacturing		
Repair of Cars and	Industry;		
Motorcycles;	Health and Social		
Transport and	Services;		
Warehousing;			
Real Estate;			
Public Administration,			
Defense, and			
Compulsory Social			
Security;			

Potential Sectors	Lagged Sectors
Electricity and Gas	Agriculture, Forestry,
Procurement;	and Fisheries;
Water Supply, Waste	Mining and Quarrying;
Management, Waste	Provision of
and Recycling;	Accommodation and
Construction;	Drinking Food;
Information and	Education Services;
Communication;	Other Services.
Financial Service and	
Insurance;	
Company Services.	

Source: BPS Data Processed, 2024

The acceleration of the digital economy following the COVID-19 pandemic has brought significant changes to economic management. Large cities have the potential to generate value-added trade, supported by key sectors such as information and communication, as well as financial services. As the city with the highest number of banking institutions in the Kedungsepur agglomeration, Semarang City plays a crucial role in the regional money supply.

Improved accessibility to surrounding areas has created opportunities for industrial expansion into Semarang Regency, Kendal, and Demak agglomeration areas. This region offers a strategic location for industrial development linked to Semarang City, primarily due to the availability of more affordable land than the city center. Strengthening inter-regional connectivity is, therefore, essential in fostering sustainable regional economic growth.

The economic potential of Semarang City not only generates positive impacts but also attracts in-migration, which places additional demands on the city's capacity and public expenditure. From 2012 to 2023, the city has

experienced a continuous trend of positive population growth. While a demographic bonus can provide a valuable human resource pool, it also increases job competition, particularly when the labor force dominates the demographic structure, as in Semarang City.

Kouskoura et al. (2024) emphasize that strategies to enhance regional competitiveness should be tailored to the specific regional context to ensure global resilience and competitiveness. Their study evaluated expert opinions on the impact of ten key factors on regional competitiveness, including the economy, labor market, poverty and social inclusion, health, education, environment, transportation infrastructure, science and technology, high-tech industry, and innovation. Similarly, Ye et al. (2022) found that science, technology, and culture are the primary drivers of urban competitiveness in Wuhan City. Their study highlighted the importance of industrial restructuring, economic development, infrastructure improvements, and quality of life strengthening urban competitiveness. Ensuring the economic sustainability of cities requires a comprehensive approach that considers various interconnected regional development factors.

Semarang City's economy continues to grow, seizing opportunities as they arise. As long as population growth persists, a market for goods and services will exist. Previous studies, such as those conducted by Kouskoura et al. (2024), Ye et al. (2022), and Zhang et al. (2023), emphasize the importance of regions responding to various aspects, including innovation and novelty, to achieve sustainable growth. The region is focused on managing natural resources and responding to the needs of high-value economic development. New economic roles in Semarang City include the creative industry, the implementation of the green economy, and the digital economy.

Semarang City's coastal position supports its branding as a marine city through the development of marine tourism in the Marina Beach area. Fahri et al. (2022) explained that the implementation of the blue economy in Semarang City involves utilizing technology to

maximize aquaculture and trade in coastal areas. To optimize the benefits of this strategy, synergy and collaboration among stakeholders are essential. Semarang City, with its 20 km of coastline along the Java Sea, leverages this geographical advantage as a source of livelihood for fishermen and as a means to manage coastal resources. The digitalization of marine businesses has also begun, helping to improve efficiency and maximize economic benefits.

The rapid development of Semarang City has continuously raised sustainability concerns. Support for a green economy is reflected in various planning documents, including initiatives for renewable energy use, such as solar and wind power, innovative waste management, and environmentally friendly transportation systems. Grabowski et al. (2023) state that improving energy efficiency in cities positively impacts multiple dimensions of competitiveness, including economic, social, environmental, and technological aspects. Energy efficiency is a that benefits strategic approach communities, and businesses. Urban energy efficiency policies have become increasingly important in response to the energy crisis, particularly in promoting efficient transportation systems and using renewable energy sources.

One of the most influential economic transformations in Semarang City is the rise of financial technology (fintech) through smart banking. The city has experienced significant changes due to the adoption of digital banking technologies, which enhance the efficiency and accessibility of financial services. Semarang has seen an increase in banking transactions as the center of government and banking services in Central Java. A notable development is the rapid adoption of the Quick Response Code Indonesian Standard (QRIS), with transaction volumes expected to rise further in 2024. The increasing use of digital financial transactions aligns with the expansion of e-commerce in urban areas. Additionally, Semarang's branding as a smart city has facilitated the rapid growth of digital banking and payments, with QRIS usage increasing by approximately 300% over the past year.

The positive relationship between financial industry development and innovation is also highlighted by Zhang et al. (2023), who found that financial sector advances directly contribute to cities' sustainable competitiveness, particularly in developing regions. Their findings underscore the crucial role of financial services in fostering economic growth and strengthening regional competitiveness through sustainable innovation. As applied by Xu et al. (2023), economic analysis using machine learning utilizes convolutional neural networks (CNN) to classify regional economic conditions, providing valuable insights for formulating effective policies and investment decisions. Integrating technological advancements and digitalizationbased models enables regions to conduct economic activities more efficiently, creating greater added value.

The foregoing discussion indicates that Semarang City's economy holds significant potential for continued growth. Several strategic issues have been identified by the government in regional development planning, including improving investment performance, enhancing productivity and competitiveness, strengthening the tourism sector, increasing the capacity and quality of the micro economy, developing creative industries, utilizing regionally owned resources, and addressing social welfare challenges.

Statistical trends suggest that Semarang City's investment performance will remain positive. Domestic investors continue to dominate total investment in the city, particularly in providing public utilities. This trend highlights Semarang City as an attractive investment destination in Indonesia. Key sectors receiving special attention for investment include basic infrastructure, which plays a crucial role in ensuring the sustainability of urban development.

One of the Semarang City Government's innovations to attract investment is the Pro-Investment Spatial Planning policy, managed by the Semarang City Spatial Planning Agency. This initiative aims to accelerate processes, improve services, and provide easy access for the public and potential investors regarding spatial

licensing. The policy is implemented using spatial data and Geographic Information System (GIS) technology to facilitate efficient urban planning and investment decision-making. The development of investment in Semarang City is illustrated in Figure 9 below.



Figure 9. Trend of Total Investment in Semarang City 2018-2023

Source: One Data Indonesia Processed, 2024

Li et al. (2023) found that foreign direct investment (FDI) plays a crucial role in enhancing the sustainable competitiveness of cities in China. FDI is significantly linked to the expansion of scale, technological advancements, and improvements in economic structure. However, the study identified regional disparities in the impact of FDI, with more pronounced effects in the eastern region compared to the northeast, central, and western regions. These findings suggest that the unique characteristics of urban areas influence investment outcomes differently.

Semarang City's competitiveness has reached strong levels in several key indicators, particularly in institutions and regulations, which scored 4.74 out of 5, and skills and innovation, which achieved a 4.09 out of 5 by 2023. However, the competitiveness aspects related to infrastructure and land and corporate and financial support have remained relatively lower, with scores of 3.61 and 3.57, respectively, in 2023. A summary of the city's competitiveness in these four aspects is presented in Figure 10 below

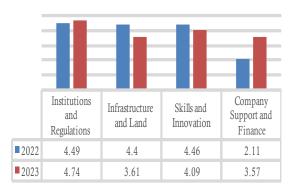


Figure 10. Competitiveness Position of Semarang City in 2022-2023

Source: National Research and Innovation Agency Processed, 2024

Figure 10 highlights the need for improved corporate and financial engagement to support the city's economy. Land acquisition constraints have become a critical issue due to Semarang City's coastal location, which has led to challenges such as tidal flooding and land subsidence. These issues pose risks to vital infrastructure, including Tanjung Emas Port and industrial estates, potentially affecting the city's strategic role as a maritime logistics hub.

Tourism competitiveness remains an economic challenge for Semarang City, as it has not yet established itself as a major tourist destination. According to BPS data (2023), the average length of stay for tourists in Semarang City is only one day, indicating that the city is not a primary travel destination. As of 2022, most visitors are domestic tourists, as shown in Figure 11 below.

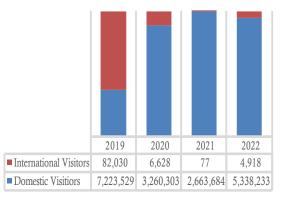


Figure 11. Semarang City Tourist Trend 2019-2022

Source: BPS Data Processed, 2024

Tourism can be a "double-edged sword" for a city's economy. While an influx of tourists can drive local economic growth by increasing consumption and demand for tourism services, high tourist activity can also have negative effects, such as increased congestion and pressure on city infrastructure. Therefore, sustainable management of the tourism sector is essential to maximize economic benefits while minimizing adverse impacts.

Microenterprises play a crucial role in representing people-based businesses. These enterprises have demonstrated resilience in times of economic crisis and have contributed to the economic growth of Semarang City. According to the Office of SMEs of Semarang City, nearly 12,000 MSMEs were recorded in 2022. The role of Semarang City's MSMEs within the Kedungsepur Agglomeration Region is presented in Figure 12 below.

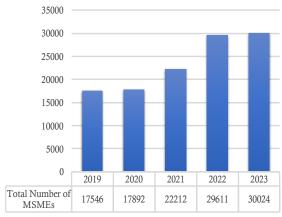


Figure 12. Total Number of Micro, Small, and Medium Entreprises (MSMEs) in 2019-2023 Source: data.semarangkota.go.id Processed, 2024

The food and beverage processing industry plays a significant role in Semarang City, ranging from large-scale factories to small culinary MSMEs specializing in local delicacies such as tempeh, presto milkfish, and traditional snacks like lumpia and wingko babat. These food and beverage MSMEs have substantial potential in driving the local economy.

Semarang also has a dynamic creative economy, supported by its blend of historical, cultural, religious, and natural tourism. Key destinations include Lawang Sewu, Old Town Semarang, Sam Poo Kong Temple, the Central Java Great Mosque, Avalokitesvara Pagoda, Puri Moerokoco Tourism Park, Marina Beach, Kreo Cave, Jatibarang Reservoir, Rainbow Village, Ranggawarsita Museum, and Gombel Hill. Various creative industries leverage this cultural wealth, including fashion and textiles featuring local flora and fauna motifs, culinary innovations incorporating traditional foods, handicrafts such as bamboo weaving and ceramics, graphic and media design, performing arts and music showcased in events like the Semarang Night Carnival and Old City Festival, the film and animation industry, and creative tourism initiatives that highlight unique, thematic experiences such as Kampung Pelangi and heritage tourism in the Old City.

Semarang City has the potential to enhance community welfare through its diverse economic sectors. While some of these industries are well-established, others are still developing, necessitating support from businesses and the government, especially in addressing space constraints. The region can adopt various strategies to generate high-added value while leveraging technological advancements and innovation while ensuring long-term sustainability

CONCLUSION

Semarang City's economy has strong competitiveness potential, driven by development of high-value-added economic activities. Its strategic location supports the growth of key sectors such as trade, maritime industries, and public services. Over the past decade, 10 out of 17 economic sectors have become base sectors, highlighting the city's economic strength. Among these, three sectors stand out for their competitiveness and specialization: Wholesale and Retail Trade Car Motorcycle Repair, Estate, and Real Government Administration, Defense, and Compulsory Social Security. Along with Transportation and Warehousing, these sectors form the backbone of Semarang City's economic landscape.

Semarang City's strategic advantages solidify its role as a crucial hub within the Kedungsepur Agglomeration. However, to maximize regional economic benefits, synergy with surrounding areas is essential to ensure balanced growth and optimize agglomeration advantages. Given spatial limitations and environmental challenges, the city must embrace sustainable strategies that leverage natural resources, technological advancements, and human capital. By integrating a new economic framework that prioritizes sustainability, local values, and an enhanced creative ecosystem, Semarang City can continue to generate highvalue economic growth while ensuring long-term resilience.

REFERENCES

- BPS Semarang City. 2024. [Series 2010] GRDP of Semarang City at Constant Prices by Business Field (Billion Rupiah) (Billion Rupiah), 2014-2023.
- BPS Semarang City. 2024. Number of Tourist Visits by Type of Tourist in Semarang City (Soul), 2019-2023
- BPS Central Java. 2024. Central Java GRDP at 2010 Constant Prices by Business Field (Million Rupiah), 2022-2023.
- Braičić, Z., Šlezak, H., & Lončar, J., 2024. Shift-share analysis of local economy's competitiveness:

 Case study of the Varaždin-Koprivnica region,
 Croatia. Geographica Pannonica.

 https://doi.org/10.5937/gp28-49784
- BRIN. 2023. Regional Competitiveness Index 2022. https://doi.org/10.55981/brin.750
- BRIN. 2024. Regional Competitiveness Index 2023. https://doi.org/10.55981/brin.1036.
- Data.Semarangkota.Go.Id. 2024. Industry & Micro Business Data Category.
- Data.jatengprov.go.id. 2024. Investment Realization 2014-2023 Semarang City.
- Dewanti, A, N., & Yusuf, F, R., 2023. Analysis of Alternative Investment Potential in Balikpapan City from a Spatial Perspective. *Journal of Spatial Planning*, 18(2).
- Essien, E., 2023. Urban theories and urbanization perspectives in cities across Nigeria. *Environmental Research Communications*, 5. https://doi.org/10.1088/2515-7620/acefb4
- Fracasso, A., & Marzetti, G., 2018. Estimating dynamic localization economies: the inadvertent success of the specialization index

- and the location quotient. *Regional Studies*, 52, pp. 119 132. https://doi.org/10.1080/00343404.2017.1281
- Grabowski, J., Ropęga, J., Walecka, A., & Wiśniewska, M., 2023. Using Energy Policies to Shape Local Competitive Advantages. *Energies*. https://doi.org/10.3390/en16227503.
- Iglesias, M., 2021. Measuring Size Distortions of Location Quotients. *International Economics*, 167, pp. 189-205. https://doi.org/10.1016/J.INTECO.2021.05.
- Katti, S., Pratiwi, D., & Setiahadi, R., 2019. Klassen Typology Approach for Analysis of the Role of Competitiveness Agricultural Sector. *IOP Conference Series: Earth and Environmental Science*, 347. https://doi.org/10.1088/1755-1315/347/1/012106
- Kong, Y., 2022. Correlation Analysis between Financial Development Level and City Size Based on Mutual Information Algorithm. *Mathematical Problems in Engineering*. https://doi.org/10.1155/2022/4034176.
- Kouskoura, A., Kalliontzi, E., Skalkos, D., & Bakouros, I., 2024. Evaluating Experts' Perceptions on Regional Competitiveness Based on the Ten Key Factors of Assessment. Sustainability
- Liu, C., Peng, M., & Gong, W., 2022. Spatial Spillover Effects Promote the Overall Improvement of Urban Competitiveness: Evidence of SDM in Asian Cities., 10. https://doi.org/10.3389/fenvs.2022.779596.
- Li, J., Jiang, L., Jiang, B., & Luan, S., 2023. How Does FDI Enhance Urban Sustainable Competitiveness in China?. *Sustainability*. https://doi.org/10.3390/su151310393.
- Montanía, C., Márquez, M., Fernández-Núñez, T., & Hewings, G., 2023. Toward a more comprehensive shift-share analysis: An illustration using regional data. *Growth and Change*. https://doi.org/10.1111/grow.12693
- Nasi, G., Choi, H., Cucciniello, M., & Christensen, R., 2022. A systematic literature review of city competitiveness: A 30-year assessment and future agenda for public administration. *Public Management Review*, 25, pp. 1562 - 1586. https://doi.org/10.1080/14719037.2022.2029 550.
- Rastvortseva, S., 2022. An Overview of Investigations
 Concerning Agglomerations in Regional
 Economy. *Economy of Region*.
 https://doi.org/10.17059/ekon.reg.2022-2-2

- Sebayang, A, F., 2024. Regional Economics. Jakarta: Bumi Aksara
- Ţicău, I., Dan, M., Hadad, S., & Nistoreanu, P., 2023.
 Sustainable Development in Peri-Urban
 Regions: A Triangulation Analysis.
 Sustainability.
 https://doi.org/10.3390/su152014837
- Ye, X., Fan, Y., Miao, J., & He, Z., 2022. The Competitiveness of Regional Urban System in Hubei Province of China. *Land*. https://doi.org/10.3390/land11060879.
- Xu, X., Chen, Z., & Chen, S., 2023. Enhancing economic competitiveness analysis through machine learning: Exploring complex urban features. *PLOS ONE*, 18.

- https://doi.org/10.1371/journal.pone.029330
- Zhang, H., Sun, Y., & Meng, C., 2023. Sustainable Urban Competitiveness from a Financial Development Perspective: An Empirical Study of China. Sustainability. https://doi.org/10.3390/su15054225.
- Zhao, Y., Li, J., Liu, K., & Wang, J., 2022. The influence and analysis of urban spatial elements on national economic development. *International Journal of Sustainable Engineering*, 15, pp. 86 97. https://doi.org/10.1080/19397038.2022.2059 590.