

Policy response in subosukowonosraten regional competitiveness in Central Java Province

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Abstract

This study evaluates the indicators of regional competitiveness of the Subosukowonosraten region in Central Java, focusing on Surakarta City, Wonogiri Regency, Boyolali Regency, Sragen Regency, Sukoharjo Regency, Klaten Regency, and Karanganyar Regency. Indicators include business dynamics, innovation capacity, technological readiness, institutions, infrastructure, regional economy, health, education and skills, product market efficiency, employment, access to finance, and market size, with a rating scale from 1 to 5. The results of the analysis show that the Subosukowonosraten region has high potential in most of the assessed aspects, such as business dynamics, innovation, technology, and product market efficiency. However, there is a need to improve education, skills, and access to finance. These findings can be used as a basis for developing public policies aimed at improving economic growth and community welfare. Policy recommendations include infrastructure development, improving access to finance, improving the quality of education and skills, and supporting innovation and technology. With these measures, the region is expected to achieve sustainable economic growth and improve the quality of life of its residents.

Keywords

Regional competitiveness, Business dynamics, Sustainable economic growth

Introduction

The urgency of policy responses to the results of the evaluation of regional competitiveness [1], [2] in the Subosukowonosraten region, Central Java, is fundamental to promoting sustainable economic growth and improving people's welfare. The data shows that the region has high potential in terms of business dynamics, innovation, and technology. Therefore, appropriate policy responses are needed to optimize this potential, create an enabling environment for innovation [3], and address identified challenges, particularly in education [4], skills, and access to finance [5], [6]. Policy responses can stimulate the innovation and technology sectors, improve adequate infrastructure, and strengthen access to finance for small and medium-sized enterprises (SMEs). Policy [7], [8], [9] responses can also motivate closer

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collaboration between local governments, the private sector, and educational institutions, creating strong synergies to develop a conducive business ecosystem across the region. With prudent policy measures, it is hoped that Subosukowonosraten can overcome challenges and capitalize on existing potentials, achieve sustainable economic growth, and improve the quality of life for its residents.

The results of an evaluation of regional competitiveness in the Subosukowonosraten region of Central Java revealed several gaps that are prioritized to be addressed through measurable policy responses. One significant gap is in education and skills, particularly in Wonogiri and Boyolali districts, which show low scores. Improvement measures in the education and skills training system at the local level are important to address the imbalance between labor market needs and local labor qualifications. In addition, the high potential for innovation and technology in the region is unevenly distributed, especially in Karanganyar Regency. Therefore, government support and local innovation-building measures may be needed to ensure increased innovative capabilities across the region. Access to finance is also an issue that needs to be addressed, especially in Klaten Regency and Karanganyar Regency. Measures to improve accessibility to financial resources, particularly for SMEs [10], [11], could support economic growth [12] in both regions. In addition, differences in regional economic performance and product market efficiency between the regions point to the need for further research to understand the factors that contribute to these differences. By responding to these gaps through appropriate policies, it is expected that the Subosukowonosraten region can improve its overall competitiveness.

The objective of the regional competitiveness evaluation in Subosukowonosraten, Central Java, is to investigate the factors that influence economic growth and community welfare in the region. Through the analysis of various indicators, such as business dynamics, innovation, and health, the evaluation aims to identify potentials, weaknesses, opportunities, and challenges. With this in-depth understanding, the goal is to provide a basis for public policies that can promote sustainable economic growth, improve people's quality of life, and direct investment and infrastructure development according to the needs of the region. In addition, this evaluation aims to encourage stakeholder engagement and provide guidance for sustainable development that benefits all levels of society in Subosukowonosraten.

The research limitations of evaluating regional competitiveness in the Subosukowonosraten region involve several aspects. Firstly, data limitations may affect the depth of analysis due to the lack of complete data for some indicators. Secondly, the time span of the study may not cover dynamic changes that occurred after the study was conducted. The methodology and measurements used may also affect the validity of the results, and differences in the local context in each region may not be fully considered. External factors and local stakeholder participation also need to be considered. Finally, if the research includes predictive models, it should be borne in mind that these models may have a certain degree of uncertainty and assumptions that may

limit the accuracy of the predictions. Awareness of these limitations is important to interpret results more carefully and identify areas that require further research.

Methods

This research uses the literature review method to explore aspects of regional competitiveness in the Subosukowonosraten region of Central Java. By analysing and synthesising information from previous studies and relevant literature, this research aims to build a strong theoretical basis. The literature review helps to understand the conceptual framework of regional competitiveness and identify key factors that influence the region's competitiveness. In addition, this approach also provides a basis for formulating policy responses, utilising ideas, concepts, and frameworks discovered from previous studies. As such, this research seeks to formulate more effective policy recommendations to improve competitiveness and community welfare in Subosukowonosraten.

Results and Discussion

The division of 7 development areas of Central Java Province which refers to the Regional Spatial Plan of Central Java Province and the Regional Development Plan of Central Java Province 2024-2026, Subosukowonosraten is one of the development areas, consist of Surakarta City (SC), Wonogiri Regency (WR), Boyolali Regency (BR), Sragen Regency (SR), Sukoharjo Regency (SuR), Klaten Regency (KR), Karanganyar Regency (KaR). The basis of the division refers to the potential and characteristics of the region, population density, urban systems, and regional interactions. The existence of regional competitiveness mapping can be used to interpret regional characteristics and the role of the region in the development of the regional system based on the Central Java Province Governor Regulation number 45 of 2020 which mandates that regional competitiveness mapping can indicate regional productivity, as well as its positioning in the process of regional development and development.

Table 1. Mapping the competitiveness of the Subosukowonosraten region 2020-2023

Regional	2020	2021	2022	2023
Surakarta City	4.3332	4.3644	4.187	4.324
Wonogiri Regency	3.9179	3.8561	3.897	3.994
Boyolali Regency	3.2357	3.1596	3.399	3.755
Sragen Regency	3.2475	3.8994	3.951	4.187
Sukoharjo Regency	3.404	3.2748	3.559	3.89
Klaten Regency	2.9739	3.0396	3.228	3.232
Karanganyar Regency	3.4421	3.2868	3.617	3.283

Source: BRIDA Central Java Province, 2023

The regional competitiveness index data for regions in Central Java from 2020 to 2023 shows a picture of variation in the level of economic competitiveness of each region (Table 1). Surakarta City, despite fluctuations, shows a recovery in 2023 after a decline in 2022. Wonogiri Regency shows a relatively stable level of competitiveness with a slight

increase from year to year. In contrast, Boyolali Regency experienced a decline in 2021, but a significant increase in 2022 and 2023. Sragen Regency stands out with a significant increase over the period, reflecting its positive economic growth potential. Sukoharjo Regency experienced annual fluctuations with an increase in 2023 after a decrease in 2021. Klaten Regency showed a relatively stable increase, while Karanganyar Regency experienced fluctuations with a significant decrease in 2022 but recovered in 2023. More in-depth analysis is needed to understand the factors underlying these changes, but the data provides a snapshot of the diversity of regional competitiveness levels in Central Java over the period. The index has 12 pillars that serve as a reference for regions in the development region.

Table 2. Competitiveness Pillars of Subosukowonosraten Region in 2023

Pillars	SC	WR	BR	SR	SuR	KR	KaR
Business Dynamics	5.00	4.75	4.21	4.54	4.21	3.46	3.96
Innovation Capacity	4.97	3.40	2.64	4.60	4.43	2.16	1.49
Technology Readiness	5.00	4.75	4.75	5.00	4.50	4.25	2.75
Institutional	4.67	4.50	4.67	4.50	4.08	4.17	4.33
Infrastructure	4.17	3.83	4.75	4.25	4.33	3.08	3.75
Regional Economy	3.85	3.61	3.56	3.65	3.60	3.20	3.58
Health	4.88	4.75	4.29	3.88	4.13	4.13	3.50
Education and Skills	3.82	2.86	2.95	3.71	2.70	2.39	2.20
Product Market Efficiency	4.25	4.00	2.50	3.88	4.00	3.38	4.00
Labour	3.83	4.22	3.50	4.06	4.39	2.89	3.50
Access to Finance	3.50	3.00	2.50	4.17	2.33	1.00	2.83
Market Size	3.33	4.33	4.33	4.33	4.33	4.33	4.33

Source: BRIDA Central Java Province, 2023

Table 2 provides the values of the various competitiveness indicators for each pillar in Subosukowonosraten. The values represent the level of performance or achievement in each assessed aspect, with a rating scale from 1 to 5, where 5 indicates the highest performance or achievement and 1 indicates the lowest. In Business Dynamics: Surakarta City has the highest score (5.00), indicating a very high level of business dynamism and Wonogiri Regency and Sragen Regency also have high scores. Innovation Capacity: Surakarta City and Sragen Regency have the highest scores in innovation capacity and Boyolali Regency and Sukoharjo Regency have high scores. Technology Readiness: Surakarta City and Wonogiri Regency stand out in technological readiness and Karanganyar Regency has the lowest score in this indicator.

On Institutionalization: Surakarta City and Sragen Regency have high scores in institutionalization. Then Infrastructure: Surakarta City and Sukoharjo Regency have high value in infrastructure. Regional Economy: Surakarta City has the lowest score in regional economy, while Wonogiri Regency has the highest score. Health: Surakarta City has a high score in health. Education and Skills: Surakarta City has the highest score, while Wonogiri Regency has the lowest score in education and skills. Product Market Efficiency: Surakarta City, Wonogiri Regency, and Sukoharjo Regency have high scores in product market efficiency. Labour: Wonogiri and Sukoharjo have the highest scores in employment. Access to Finance: Surakarta City and Sragen Regency have the highest

score in access to finance. Market Size: Wonogiri Regency, Boyolali Regency, Sragen Regency, Sukoharjo Regency, Klaten Regency, and Karanganyar Regency have high scores in market size.

In response to the findings of the regional competitiveness evaluation in Subosukowonosraten, various policy approaches can be implemented to improve economic conditions and community welfare. First, improvements need to be made in the education and skills sector by investing resources to improve the quality of education and provide skills training programmes according to local labour market needs. Second, support for innovation and technology can be improved through the establishment of innovation centres and incentives for companies that focus on research and development. Improved access to finance for small and medium enterprises can be achieved through low-interest loan programmes and financial assistance. Infrastructure development, especially in transport, energy, and information technology, needs to be a focus to improve connectivity and efficiency. Stimulating cooperation between local governments, the private sector, educational institutions, and local communities can create a conducive business ecosystem. Regional economic empowerment programmes and economic diversification will support resilience to global economic changes. The importance of continuous monitoring and evaluation is also recognized to ensure policy sustainability and identify areas of improvement in line with recent developments and changing conditions. Through this approach, it is hoped that Subosukowonosraten can achieve sustainable economic growth and improve overall community welfare.

To improve regional competitiveness in Central Java regions, several strategic measures need to be considered. First, an in-depth analysis of the factors affecting competitiveness in each region is a priority, including an evaluation of the local economy, infrastructure, and human resources. An in-depth understanding of the economic conditions and challenges faced by each region is required. Significant investment in infrastructure development, particularly in connectivity, transport, and information technology, is also essential. Infrastructure sustainability and resilience will be a key foundation for improving competitiveness and supporting sustainable economic growth.

Furthermore, improving the quality of education and skills training was identified as a key element to enhance the quality of human capital and, thus, improve labour competitiveness. Support for innovation and research also needs to be enhanced through the establishment of innovation centres and partnerships between educational institutions, industry and government. Innovation in various sectors of the economy can be a significant driver of economic growth. In addition, local economic empowerment is realized through fiscal incentives, mentoring, and training for SMEs. Economic diversification is also an important point to increase the resilience of the regional economy to changing global conditions. Close cooperation between the local

government, private sector, educational institutions, and the community is a crucial element in creating a conducive environment for economic growth.

Access to finance for SMEs is also a focus in efforts to improve competitiveness. Low-interest loan programmes and financial support can provide a significant boost to the capacity of SMEs to contribute to regional economic growth. In addition, it is important to align policy measures with the principle of environmental sustainability, including support for renewable energy and environmentally friendly business practices. Finally, an ongoing monitoring and evaluation system is needed to ensure policy sustainability and effectiveness. This involves continuous monitoring of the impact of implemented policies and continuous adjustment in accordance with the latest conditions and developments. With the implementation of these measures, it is expected that Central Java can strengthen its competitiveness, encourage sustainable economic growth, and improve the welfare of its people.

Conclusion

The conclusion of this study is that through the literature review method, the research succeeded in building a strong theoretical basis for the understanding of regional competitiveness in the Subosukowonosraten region, Central Java. Findings from previous studies and relevant literature helped identify key factors affecting competitiveness, providing insights into the economic dynamics and potential of the region. This approach also provides the basis for policy responses, which are expected to contribute positively to improving competitiveness and the well-being of local communities. Policy recommendations derived from the conceptual understanding and literature findings are expected to guide the development of sustainable economic and social strategies in Subosukowonosraten, creating a positive impact on economic growth and the quality of life of its residents.

Based on the results of the literature review related to regional competitiveness in the Subosukowonosraten region, several policy recommendations can be proposed. Firstly, it is necessary to increase investment in infrastructure to support regional connectivity and accessibility and ensure the smooth flow of goods and services. Second, special attention needs to be given to improving the quality of education and skills training to increase the capacity of local human resources. This includes developing curricula that are in line with local and global industry needs. Next, it is necessary to support innovation and research through the establishment of innovation centers and partnerships between educational institutions, industry, and government. This support can create an enabling environment for knowledge-based economic growth. In addition, empowering local economies through fiscal incentives, training and mentoring for SMEs can encourage economic diversification. Finally, it is important to improve access to finance for SMEs through low-interest loan programmes to support their growth and development. With the implementation of these policies, it is hoped that

Subosukowonosraten can strengthen its competitiveness, promote sustainable economic growth, and improve the welfare of its people.

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