Research Paper

Driving Local Productivity: The Interplay of MSMEs, Government Spending, and Economic Growth

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ARTICLE INFO	ABSTRACT
	The strategic development of Micro, Small, and Medium Enterprises (MSMEs) and government spending are pivotal drivers of local productivity and regional economic growth. However, existing empirical investigations often lack an integrated framework linking these crucial factors. This study addresses that gap by analyzing the influence of MSME growth and government spending on local sector productivity and their subsequent implications for economic growth dynamics in Lampung Province, Indonesia. Adopting a quantitative survey design, this research collected primary data from 190 purposively selected respondents, comprising MSME actors and government officials across key economic sectors. Supporting secondary data was also utilized. The study employed Structural Equation Modeling–Partial Least Squares (SEM-PLS) to test seven hypotheses. The findings unequivocally demonstrate that MSME growth and government spending significantly influence the dynamic of economic growth and local sector productivity. Moreover, local sector productivity also significantly influences economic growth. Last but not least, both MSME growth and government spending have significant indirect influences on economic growth through local sector productivity. This study advances the understanding of the causal mechanisms linking fiscal policy and MSME dynamics within regional development frameworks. It further emphasizes the critical importance of synergy between local governments and MSME stakeholders to ensure inclusive and sustainable economic growth. Future research is encouraged to explore sector-specific policy impacts through longitudinal and mixed-method approaches for more profound insights.

Introduction

Micro, Small, and Medium Enterprises (henceforth MSMEs) have an important role in creating jobs, driving economic growth and improving community welfare. MSMEs absorb 97% of the total workforce and collect up to 60.4% of total investment in Indonesia (Tambunan, 2023). Growing MSMEs create local supply chains, enabling the economy to become more resilient and adapt to economic fluctuations (Prasetyo, 2020; Torm & Oehme, 2024). MSMEs also encourage innovation and economic diversification. MSMEs often grow in various sectors, including food and beverages, crafts, and technology (Nur Azizah et al., 2025). This diversity helps the economy not to depend on just one sector, thereby increasing its resilience to risks. Innovations emerging from the MSME sector can also enrich the added value of local products, making them more competitive in the wider market both nationally and internationally (Setiawan et al., 2025). The contribution of MSMEs to increasing regional income and stabilizing the local economy makes this sector relevant for further development in Indonesia. Hence, Indonesia has the potential for a strong national economic base because the number of MSMEs is very high, and they can absorb more workers (Tao & Chao, 2024).

Government spending plays an important role in driving dynamic economic growth by improving infrastructure, public services, and supporting local economic sectors. Appropriate allocation of government spending to strategic sectors, such as education, health, and infrastructure, not only strengthens the foundations of the economy but also increases productivity (Bucci et al., 2024; Zhao & He, 2024). Thus, government spending on these sectors encourages long-term economic growth by creating a solid foundation for economic activity (Duke et al., 2024). In addition, it can increase the competitiveness of the local economy by supporting the small and medium-sized enterprise (MSME) sectors (Hidayat et al., 2025). MSMEs can develop and increase productivity through training programs, capital assistance, and wider market access. This support plays an important role in strengthening the highly competitive local sector, which ultimately contributes to regional economic stability.

Apart from infrastructure development, government spending also includes investment in the education sector and skills training for local communities, which directly impacts labor productivity. Government-funded training programs aim to improve the quality of human resources so that they are better prepared to meet the job market's needs (Albassam, 2022). With better skills and knowledge, local workers become more productive and can manage their businesses and work more efficiently (Prathap et al., 2025). Improving the quality of the workforce also provides added value to the local sector because it creates a workforce that can compete and innovate, accelerating the growth of potential local sectors (Ngongolo, 2023). Government spending directed at local economic development can make economic growth more sustainable, dynamic, and resilient to global economic changes (Sharma et al., 2024). It encourages infrastructure development, accessibility, and capital investment. The development of infrastructure that can streamline supply chains and distribution among small and medium-sized businesses is necessary. Government spending strengthens the economic sector and community welfare (Disli & Jalaly, 2024). However, it is influenced by various factors, such as slow bureaucracy and inappropriate allocation.

The growth of MSMEs increases the productivity of the local sector through job creation and improvement of workforce skills. With an increase in the number of MSMEs in an area, job opportunities for the local community increase, thereby reducing

unemployment and empowering local communities (Saputra & Darmawan, 2023). MSMEs also often require specific skills that motivate workers to improve their competencies through training and direct work experience (Suharyanto et al., 2024). These acquired skills directly contribute to the productivity of the local sector, ultimately strengthening regional capacity and competitiveness in the face of increasingly complex economic challenges (Muza, 2024). MSMEs have a positive impact on local sector productivity through the use of local resources (Hayati & Fatarib, 2022; Prasetiawan et al., 2024). Many MSMEs utilize raw materials and resources available in the area, which not only reduces production costs but also strengthens the local supply chains (Nursini, 2020). By using local raw materials, MSMEs encourage other supporting sectors, such as agriculture, fisheries, and crafts, to produce optimally. This synergy between sectors creates a mutually supportive economic ecosystem in which increasing productivity in one sector positively impacts other sectors, making the local economy more independent and efficient (Maslani et al., 2024; Montoya et al., 2024).

Meanwhile, local sector productivity has a major impact on the regional dynamics of economic growth. A productive local sector can create higher added value at each stage of production, thereby strengthening the overall regional economic capacity (Suharyanto et al., 2024). When local sectors, such as agriculture, manufacturing, and services, experience increased productivity, their contribution to the Gross Regional Domestic Product (GRDP) also increases (Dirbawanto, 2024). This provides a solid foundation for economic growth because high productivity allows regions to meet local needs more efficiently and expand their markets (Osabohien et al., 2024). In addition, a productive local sector creates jobs and strengthens people's purchasing power (Kumarasamy et al., 2024), which, in turn, increases demand for goods and services. When people's purchasing power increases, local consumption also grows, pushing the wheels of the regional economy to move more quickly. This domino effect is crucial in spurring economic growth because with an increase in people's income, the demand for products and services from other sectors also increases. Thus, local sector productivity is the main driver of economic dynamics that continue to develop, reduce dependence on imports, and encourage sustainable growth (Khalil et al., 2024).

Various challenges have been identified in community management and empowerment. Many MSMEs actors in Lampung encounter limitations in terms of market access, limited capital, and inadequate use of technology. To expand the MSME network and market reach, appropriate technological adaptations are required. This hampers the local sector's ability to contribute optimally to regional economic growth (Mudjahidin et al., 2024). Thus, to enhance the competitiveness of the local sector, it is essential to develop micro, small, and medium enterprises (MSMEs) and allocate government spending appropriately. This approach aims to foster an inclusive economy, boost MSME productivity, and improve public spending efficiency, thereby promoting regional economic stability and sustainability (Abane et al., 2024; Prasetyo, 2020; Utomo, 2024).

The sustainability and development of MSMEs are important elements in realizing stable, inclusive, and sustainable economic growth (Gad & Leone, 2024). However, despite growing attention to the role of MSMEs and government spending in fostering economic development, empirical studies that integrate these variables to assess their combined effect on local sector productivity remain limited, particularly at the provincial level of Indonesia like Lampung province. Previous research has often focused on either MSME development

or government expenditure in isolation, without examining their interactive and synergistic impacts on productivity and economic dynamics. Furthermore, there is a paucity of region-specific studies that explore how local economic policies influence MSMEs' capacity to drive productivity across sectors. This study addresses this gap by offering an integrative framework that connects MSME growth and targeted government spending to the productivity of local sectors and broader regional economic dynamics. The novelty of this research lies in its contextualized analysis within Lampung Province, an area with unique economic characteristics, using a multidimensional approach to link policy, enterprise growth, and productivity outcomes.

This study aims to examine MSME growth and government spending on local sector productivity and its implications for the dynamics of economic growth in Lampung Province. By analyzing these relationships, the research seeks to provide evidence-based recommendations for formulating more effective regional development strategies. The potential implications include guiding local policymakers in prioritizing government expenditures that amplify MSME contributions, improving the efficiency of public resource allocation, and fostering inclusive and sustainable economic growth. The results of this study are expected to contribute to the academic discourse on local economic development and serve as a practical reference for enhancing regional productivity through synergistic policy and enterprise development strategies. Moreover, the findings of this study provide recommendations for local governments to formulate sustainable economic development policies. Appropriate strategies and policies will strengthen the local economic sector and improve community welfare in the long term.

Hypotheses Development

MSMEs and Economic Growth

Micro, Small, and Medium Enterprises (MSMEs) are widely recognized as crucial catalysts for inclusive economic development, fostering participation across diverse socioeconomic strata. This phenomenon is deeply rooted in various economic theories, such as the Endogenous Growth Theory, which posits that economic growth is primarily driven by internal factors like human capital, innovation, and, critically, entrepreneurial activity (Prathap et al., 2025). MSMEs, by their very nature, embody this entrepreneurial spirit, offering accessible avenues for individuals with limited capital to initiate and expand businesses, thereby directly contributing to poverty reduction and the mitigation of regional economic disparities (Suharyanto et al., 2024). Furthermore, the Schumpeterian theory of creative destruction highlights how new enterprises, often MSMEs, introduce innovations that challenge existing market structures, leading to dynamic economic shifts and sustained growth (Marinelli et al., 2024). Empirical evidence consistently supports these theoretical underpinnings. For instance, recent studies by Zhang and Tsai (2024) underscore the pivotal role MSMEs play in fortifying regional economies, serving as foundational pillars of local commerce and employment. Complementing this, Antriyandarti et al. (2024) further demonstrate that MSMEs are instrumental in diversifying regional income streams, reducing over-reliance on a few dominant industries and thereby enhancing economic resilience. This multifaceted contribution positions MSMEs as indispensable drivers of dynamic economic growth.

H1: There is a significant influence of MSME growth on the dynamics of economic growth.

Government Spending and Economic Growth

In addition to strengthening infrastructure, government spending contributes to increasing people's purchasing power through subsidy programs, social assistance, and economic incentives. Through this increase in purchasing power, people's consumption increases, which is one of the main components of economic growth (Surya et al., 2021). At the local level, targeted government spending can create a multiplier effect, where increased consumption drives various economic sectors, from trade to services, ultimately increasing local income. Thus, government spending not only meets people's basic needs but also functions as an economic stimulus that accelerates financial circulation and encourages more inclusive economic growth (Heredia-Fonseca et al., 2024). Government spending plays a crucial role in the dynamics of economic growth, with the government's policy of building infrastructure facilitating the supply chain and market reach of MSMEs to improve the economy of local and regional communities (Nuryanto et al., 2024).
H2: There is a significant influence of government spending on the dynamics of economic growth.

MSME Growth and Local Sector Productivity

Product innovation and business diversification by MSMEs also boost local sector productivity. MSMEs are known to be adaptive and responsive to market demands, which often inspires innovation in their products or services. Innovation increases the added value of local products, making them more competitive in the national and international markets (Cuevas-Vargas et al., 2024). This diversification helps MSMEs and the local sector not to depend on just one product or service, thereby strengthening the overall regional economic resilience of the area. Thus, the growth of MSMEs not only contributes to the immediate productivity of the local sector but also encourages the sustainability and flexibility of the local economy in the long term (Chereni et al., 2024). The higher the contribution to the growth of MSMEs, the better the productivity of the local sector is. However, when MSME growth is low, local sector productivity is also low (Rakshit et al., 2022).
H3: There is a significant influence of MSME growth on local sector productivity.

Government Spending and Local Sector Productivity

Government spending plays an important role in increasing local sector productivity through infrastructure development, which, in turn, supports regional economic activity. By allocating budgets for infrastructure, such as roads, bridges, and public transportation, the government creates better access to the distribution of goods and services at the local level (Avordeh et al., 2024). Adequate infrastructure speeds up the flow of goods and reduces logistics costs so that local business actors can optimize their production processes. This increase in distribution efficiency encourages local sectors to become more productive and competitive in both domestic and international markets (Ma et al., 2024). Furthermore, government spending aimed at direct support for MSMEs, such as capital assistance, subsidies, and market access, also contributes significantly to local sector productivity. This support allows MSMEs to expand their businesses, access new technologies, and improve their product quality. With access to capital and better technology, MSMEs can operate more efficiently and produce higher-value-added products. This initiative creates a sustainable cycle of productivity in the local sector, where increasing overall MSME productivity

contributes to more stable and resilient regional economic growth (Avordeh et al., 2024). The higher the government spending, the better the dynamics of economic growth. Conversely, the lower the government spending, the lower the community dynamics of economic growth (Kigozi et al., 2024).

H4: There is a significant influence of government spending on local sector productivity.

MSMEs Growth, Government Spending, Local Sector Productivity and Economic Growth

Increasing local productivity contributes to increasing regional competitiveness in facing a wider market. Regions with productive sectors have a greater ability to produce quality products at efficient costs, making them competitive in both domestic and international markets. This not only increases economic growth within the region but also opens up opportunities to export local products abroad, increasing regional income and strengthening the national economy. With increased local sector productivity, regional economic growth becomes more dynamic and resilient to global economic fluctuations, thus creating sustainable and long-term economic stability (Neufeld et al., 2024). Based on this explanation, it can be concluded that there is a significant influence of local sector productivity on the dynamics of economic growth; the better the productivity of the local sector, the better the dynamics of economic growth; conversely, the lower the productivity of the local sector, the lower the dynamics of economic growth (Al-Shami et al., 2024).

H5: There is a significant influence of local sector productivity on the dynamics of economic growth.

H6: There is a significant influence of MSME growth on the dynamics of economic growth through local sector productivity.

H7: There is a significant influence of government spending on the dynamics of economic growth through local sector productivity.

Method

Research Design and Rationale

This study adopted a quantitative explanatory research design using a survey method to investigate the relationships among MSME growth, government spending, local sector productivity, and the dynamics of economic growth in Lampung Province, Indonesia. The explanatory design was selected because the research aimed to test hypotheses derived from existing theories and to explain the causal relationships among the observed variables. By employing a structured framework, this design allows for empirical testing of the influence of government spending and MSME growth on local sector productivity and broader economic development. The selection of this design is particularly relevant given the study's focus on examining how strategic economic policies, such as public budget allocations, can enhance regional economic resilience and inclusive development through MSME empowerment.

Research Setting, Population, and Sample

This study was conducted in Lampung Province, a region with a diverse economic structure and a strong presence of micro, small, and medium enterprises (MSMEs) in Indonesia, which form the backbone of the local economy. The target population included

two main groups: (1) MSME actors, who represent business operators across sectors such as agriculture, manufacturing, trade, and services; and (2) government stakeholders, including officials from regional agencies responsible for budgeting, infrastructure development, and MSME support. To ensure adequate representation, a purposive sampling technique was applied, involving individuals with direct experience in program implementation and economic activity. A total of 190 respondents were selected, comprising MSME owners, officials from cooperative and SME offices, and representatives of strategic local economic sectors. This sampling framework ensured a balanced perspective from both policy implementers and beneficiaries, thus enhancing the validity of the findings in capturing regional economic dynamics.

Data Collection

Data collection was conducted using a structured questionnaire developed based on relevant literature and previous empirical studies. The questionnaire items were designed to measure four primary constructs: MSME growth, government spending, local sector productivity, and the dynamics of economic growth. Each construct was represented by a series of indicator items coded as IK (*Indikator Kinerja* for MSME Growth), PG (*Pengeluaran Pemerintah*/Goverment for Government Spending), KK (*Kinerja Kompetensi* for Local Sector Productivity), and KG (*Kinerja* Growth for Economic Growth). Respondents rated their perceptions using a Likert scale ranging from strongly disagree to strongly agree. Prior to distribution, the instrument was validated through expert reviews and a pilot test to ensure content validity and clarity.

Data Analysis

To examine the relationships between variables, the collected data were analyzed using Structural Equation Modeling – Partial Least Squares (SEM-PLS), facilitated by statistical software SmartPLS. SEM-PLS was chosen for its capability to model complex relationships between latent variables and to accommodate relatively small sample sizes while maintaining analytical power. The analysis process involved assessing both the measurement model (to test reliability and validity of the constructs) and the structural model (to test hypotheses and determine path coefficients). Indicators with factor loadings above 0.7 were retained, as reflected in Table 1. Model reliability was assessed using composite reliability and Cronbach's alpha, while validity was ensured through Average Variance Extracted (AVE). This statistical approach enabled the researchers to test direct and indirect effects among variables, offering insights into how MSME growth and public spending influence local productivity and, ultimately, regional economic growth. The results provide evidence-based recommendations for policy formulation in regional development planning.

Results

Validity and Reliability

This study employed SEM-PLS, where the sample data that were analyzed and considered to represent the characteristics of the population were processed using statistical applications. Table 1 presents the results of the instrument validity test conducted on the four main research constructs: MSME Growth (IK), Government Spending (PG), Local

Sector Productivity (KK), and Dynamic of Economic Growth (KG). The values shown in Table 1 represent outer loadings obtained from the SEM-PLS measurement model, which assess the strength of the relationship between observed items and their latent constructs. According to widely accepted criteria, an outer loading of 0.70 or higher indicates good indicator reliability, signifying that the item contributes significantly to explaining the construct.

Table 1. Result of Instrument Validity Test

	Dynamic of Economic Growth	Government Spending	Local Sector Productivity	MSME Growth
IK10				0.835
IK11				0.709
IK2				0.854
IK3				0.849
IK4				0.767
IK5				0.780
IK6				0.761
IK7				0.833
IK8				0.775
IK9				0.775
KG1	0.883			
KG10	0.765			
KG2	0.896			
KG3	0.872			
KG5	0.905			
KG6	0.897			
KG9	0.784			
KK1			0.764	
KK10			0.849	
KK11			0.831	
KK12			0.817	
KK2			0.778	
KK3			0.765	
KK4			0.829	
KK5			0.864	
KK6			0.828	
KK7			0.746	
KK8			0.765	
KK9			0.798	
PG1		0.818		
PG10		0.836		
PG11		0.897		
PG12		0.822		
PG3		0.826		
PG4		0.895		
PG5		0.873		
PG9		0.837		

Notes: IK (*Indikator Kinerja* for MSME Growth), PG (*Pengeluaran Pemerintah*/Goverment for Government Spending), KK (*Kinerja Kompetensi* for Local Sector Productivity), and KG (*Kinerja* Growth for Economic Growth)

For the IK indicators, which reflect MSME Growth, all items show acceptable loading values ranging from 0.709 to 0.854, indicating strong convergent validity. The KG indicators for Economic Growth perform similarly well, with loadings between 0.765 and 0.905, suggesting excellent internal consistency. Likewise, the PG indicators for Government Spending show high loadings between 0.818 and 0.897, further confirming their reliability. For Local Sector Productivity (KK), item loadings fall within the range of 0.746 to 0.864, also meeting the required threshold. These results confirm that all instrument items effectively measure their respective constructs, providing a solid foundation for subsequent structural model testing. This rigorous validation strengthens the overall credibility of the findings.

The validation test of each indicator of the research model is strengthened with average variance extracted (AVE) values. Table 2 presents the Average Variance Extracted (AVE) values for each latent construct in the research model: Dynamic of Economic Growth, Government Spending, Local Sector Productivity, and MSME Growth. AVE is a crucial metric in convergent validity testing within the Structural Equation Modeling–Partial Least Squares (SEM-PLS) framework. It measures the extent to which a latent construct explains the variance of its observed indicators relative to the variance attributed to measurement error. A commonly accepted threshold for AVE is 0.50, indicating that at least 50% of the variance in the indicators is captured by the latent construct rather than by error.

As shown in Table 2, all constructs have AVE values well above the minimum threshold, with Dynamic of Economic Growth scoring the highest at 0.738, followed by Government Spending at 0.724, Local Sector Productivity at 0.646, and MSME Growth at 0.632. These values confirm that each construct has good convergent validity, meaning the indicators are appropriately correlated with their underlying theoretical constructs. The high AVE values further suggest that the measurement model is robust and that the constructs in this study are well-defined, ensuring the reliability of subsequent hypothesis testing and path analysis. This strengthens the empirical foundation for interpreting the influence of MSME growth and government spending on local sector productivity and economic dynamics.

Table 2. Analysis of Average Variance Extracted (AVE)

	Average Variance Extracted (AVE)
Dynamic of economic growth	0.738
Government spending	0.724
Local sector productivity	0.646
MSME growth	0.632

Furthermore, the findings of the research model show that the composite reliability value of each latent variable exceeds 0.90, indicating a high level of consistency between indicators in measuring their respective latent variables. Results of the composite reliability of each latent variable. The reliability of each latent variable was strengthened by the analysis value of *reliability*, where the research results obtained that each reliability was greater than 0.60, which illustrates that each indicator of the latent variable has reliable consistency (see Table 3). Based on Table 3, it can be explained that the results of the composite reliability test show a value of > 0.70, this illustrates that the indicators used to measure this construct have good consistency. This indicates that these indicators consistently reflect the constructs being measured and can be relied on to produce stable

measurements**.** Hypothesis testing was conducted to determine the significance of the influence between variables (Surya et al., 2021).

Table 3. Result of Reliability Test

	Composite Reliability
Dynamic of economic growth	0.952
Government Spending	0.955
Local Sector Productivity	0.956
MSME growth	0.945

Hypotheses Testing Results

Table 4 presents the results of the hypothesis testing, indicating a direct influence of MSMEs growth on economic growth dynamics. A t-statistic value of $2.785 > 1.96$ and a p-value of $0.006 < 0.05$ show that there was a significant influence of MSME growth on the dynamics of economic growth and the hypothesis. This implies that the first hypothesis is accepted. Furthermore, the second hypothesis was accepted, as the direct influence of government spending on the dynamics of economic growth shows a t-statistic value of $9.712 > 1.96$, and a p-value of $0.000 < 0.05$. Hence, government spending significantly influences the dynamics of economic growth. The third hypothesis was accepted based on the direct influence of MSME growth on the local sector's productivity. This was indicated by a t-statistic value of $11.334 > 1.96$ and a p-value of $0.000 < 0.05$. This result demonstrates the significant influence of MSME growth on local sector productivity.

Table 4. Test Result of Path Coefficient

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Government Spending -> Dynamic of economic growth	0.601	0.602	0.062	9.712	0.000
Government Spending -> Local Sector Productivity	0.240	0.241	0.072	3.321	0.001
Local Sector Productivity -> Dynamic of economic growth	0.500	0.509	0.083	6.044	0.000
MSME growth -> Dynamic of economic growth	0.202	0.212	0.073	2.785	0.006
MSME growth -> Local Sector Productivity	0.659	0.660	0.058	11.334	0.000

The fourth hypothesis was accepted, as the direct influence of government spending on local sector productivity shows a t-statistic value of $3.321 > 1.96$, and a p-value of $0.001 < 0.05$. Thus, government spending significantly influences the local sector's productivity. Furthermore, the results of the hypothesis testing the influence of local sector productivity

on the dynamics of economic growth show a t-statistic value of 6.044 > 1.96 and a p-value of 0.000 < 0.05. Thus, local sector productivity significantly influences the dynamics of economic growth, and the fifth hypothesis is accepted.

The results of the hypothesis test in Table 5 indicate an indirect influence of MSME growth on economic growth dynamics through local sector productivity. The t-statistic value is 5.418 > 1.96, and the p-value is 0.000 < 0.05, showing a significant indirect influence of MSME growth on the dynamics of economic growth through local sector productivity. The sixth hypothesis is accepted. Furthermore, the results of the hypothesis test of the indirect influence of government spending on the dynamics of economic growth through the productivity of the local sector show that the t-statistic value is 2.699 > 1.96, and the p-value is 0.007 < 0.05. Hence, there is a significant indirect influence of government spending on the growth dynamics. economy through local sector productivity.

Table 5. Test Result of Path Coefficient (Indirect Effect)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Government Spending -> Local Sector Productivity -> Dynamic of economic growth	0.120	0.123	0.044	2.699	0.007
MSME growth -> Local Sector Productivity -> Dynamic of economic growth	0.329	0.335	0.061	5.418	0.000

Discussion

The growth of Micro, Small and Medium Enterprises (MSMEs) significantly influences the dynamics of economic growth. MSMEs can create large employment opportunities with relatively small capital investment. This improves purchasing power and creates higher demand for goods and services in the local market, thereby encouraging a more active economic cycle. Thus, MSMEs act as catalysts for more inclusive and productive regional economic dynamics (Dirbawanto, 2024; Liverpool-Tasie et al., 2024). MSMEs also encourage economic diversification through the various types of products and services offered. This increases the resilience of the economy to market fluctuations (Lin & Xu, 2024). MSMEs also encourage innovation and creativity in various sectors, which enriches the value of the local economy and accelerates sustainable economic growth (Elouardighi & Oubejja, 2023). In addition, MSMEs often become consumers and suppliers to other sectors, creating mutually supportive economic networks (Vargas-Zeledon & Lee, 2024). With an interconnected and productive economic network, MSMEs contribute to strengthening the local economy and increasing overall regional economic stability (Saari et al., 2024). MSMEs also become a source of revenue for the region through taxes and levies (Gangata et al., 2024). This revenue allows local governments to finance various development and infrastructure programs needed to support further economic growth in the region. This strengthens the local economy sustainably and accelerates economic growth

(Xu et al., 2024). MSMEs also allow more people to be involved in productive economic activities, including in rural and suburban areas (Leitão et al., 2024; Pieter et al., 2024).

This study shows that government spending significantly influences economic growth dynamics. When governments increase spending, especially in sectors such as infrastructure, education, and health, they open up wider access for people and businesses to participate in the economy and improve their welfare. Apart from physical infrastructure, government spending in the education and health sectors improves the quality of human resources, which is the main driver of long-term economic growth (Bansilan & Rabajante, 2024; Malviya et al., 2024). Government spending can be an effective tool for stimulating the economy during periods of global economic uncertainty. While the private sector may be cautious in its investment during periods of recession or crisis, the government can act as a stabilizer through public spending (Isip, 2022; Jalotjot & Tokuda, 2024). By stimulating aggregate demand through public projects, the government creates temporary jobs and increases people's income, which ultimately flows back into the economy in the form of consumption. In the short term, this creates a multiplier effect that stimulates growth, while in the long term, these projects add value to infrastructure and increase productivity (Panakaje et al., 2024). Through equitable budget allocation, the government can encourage development in underdeveloped areas, thereby increasing economic equality across regions. Government spending also increases private investment (Disli & Jalaly, 2024). With a supportive investment climate, economic growth becomes more dynamic and resilient to global challenges (Mudjahidin et al., 2024).

The growth of MSMEs significantly influences local sector productivity because MSMEs are the main drivers of economic activity (Dass et al., 2024; Maslani et al., 2024). MSMEs create extensive local employment opportunities with relatively little capital, allowing local workers to become actively involved in productive activities. By absorbing local workers, MSMEs help strengthen the capacity of the local sector to continue developing and innovating in the face of market challenges (Aristyowati et al., 2024; Torm & Oehme, 2024). MSMEs can function as suppliers of raw materials or as customers of larger industries in their area (Zhang & Tsai, 2024), thereby building a productive and interdependent supply chain that benefits both parties involved. This efficient supply chain creates efficiencies and supports higher productivity across all sectors of the local economy, enabling MSMEs and other businesses to operate more effectively (Duke et al., 2024). MSMEs also bring new innovations to local markets. These innovations can create competitive advantages for the local sector in facing market competition (Heredia-Fonseca et al., 2024). For example, by utilizing digital technology, MSMEs can access a wider market and market their products at a lower cost. In addition, this innovation encourages other sectors to improve their operational standards to remain relevant and competitive (Sharma et al., 2024). Apart from economic aspects, MSMEs strengthen social cohesion within local communities, positively impacting productivity (Nuryanto et al., 2024). As MSMEs grow and develop, they support community activities and employ local people, creating a sense of ownership and attachment to the business itself. With strong community support, MSMEs can maintain productivity and competitiveness in the long term, while strengthening local sectors with a solid social base (Montoya et al., 2024; Muza, 2024).

Government spending significantly influences local sector productivity because various infrastructure and supporting facilities for local economic sectors can be developed through government spending (Chereni et al., 2024). With adequate infrastructure, such as

roads, bridges, and communication networks, the local sector has easier access to distribute goods and services to the market. Government spending is also important for providing education and training services to improve the quality of local human resources (Rakshit et al., 2022). By improving the quality of the workforce through education and training programs, the local sector obtains a more skilled and work-ready workforce, which can contribute to higher productivity (Ma et al., 2024). For example, training in information technology or other specialized skills and increased quality of human resources play an important role in increasing the productivity and competitiveness of the local sector in regional and national markets (Ngongolo, 2023). Government spending on subsidies and incentive programs for MSMEs, such as capital assistance, raw material subsidies, or tax incentives that ease the financial burden for local business actors (Avordeh et al., 2024), supports small businesses in the local sector to increase their production capacity, invest in more efficient equipment and technology, and expand their business. With this assistance, MSMEs can produce quality products at lower costs, thereby increasing their productivity and strengthening the local sector's contribution to regional economic growth (Kigozi et al., 2024). The government also allocates spending for research and development (R&D) programs and innovation support, which helps the local sector create new and more competitive products and services (Osabohien et al., 2024). This program helps local businesses develop new technologies, more efficient production techniques, and create products that better suit the needs of local and global markets. In addition, government spending on local procurement of goods and services creates direct demand for the local sector, leading to increased productivity (Neufeld et al., 2024). The effects of this demand help the local sector become more productive and develop faster in the long term (Al-Shami et al., 2024).

The productivity of the local sector significantly influences the dynamics of economic growth, as the local sector is the main driver of added value and employment opportunities in an area (Jalotjot & Tokuda, 2024). When local sector productivity increases, production costs decrease, and output increases, which strengthens the sector's contribution to the Gross Regional Domestic Product (GRDP). When the local sector is more productive, companies and business actors can increase the scale of their businesses and absorb more workers (Haag et al., 2024). This workforce growth has a direct impact on increasing people's income and purchasing power. With increasing income, local people tend to spend more in local markets, creating a productive economic cycle that benefits local farmers. This increase in purchasing power strengthens the aggregate demand, which ultimately drives faster regional economic growth (Liverpool-Tasie et al., 2024). Local sector productivity also supports innovation and diversification in the regional economy (Cuevas-Vargas et al., 2024). This innovation not only increases regional competitive advantages but also encourages the formation of new economic sectors that can strengthen the regional economy. With this diversification, regions become more resilient to economic uncertainty and fluctuations in demand, making economic growth more stable and dynamic (Lin & Xu, 2024). This increases the regional export capacity (Elouardighi & Oubejja, 2023). With higher productivity, local companies can produce products of sufficient quality and quantity to penetrate markets outside their region or overseas. These exports not only increase regional foreign exchange but also strengthen the region's position in the global supply chain, positively impacting the overall economic growth. When regions can increase their exports, economic growth also becomes more sustainable because regions not only depend on

domestic demand but also receive support from international demand (Vargas-Zeledon & Lee, 2024). Another positive effect of increasing local sector productivity on economic growth is the increase in local government income through taxation (Saari et al., 2024). Thus, increasing local sector productivity not only supports economic dynamics through market activity but also creates synergy with government fiscal policy, accelerating the rate of economic growth (Gangata et al., 2024). Thus, investing in increasing local sector productivity is an important strategy for achieving dynamic and stable economic growth in the future (Xu et al., 2024). Overall, through investment in infrastructure, education, subsidies for small businesses, support for innovation, and increased tax revenues, government spending creates an environment that supports the growth of a more productive and competitive local sector. With increased local sector productivity, regions can achieve sustainable and stable economic growth (Duke et al., 2024).

In addition to the empirical findings discussed above, this study offers both theoretical and practical contributions to the discourse on MSME development and regional economic dynamics in Indonesia. Theoretically, this research enriches the body of knowledge by empirically validating the interrelationship between government spending, local sector productivity, and MSME growth as pivotal variables influencing the dynamics of regional economic development. By integrating these variables into a structural model using SEM-PLS, the study contributes to a deeper understanding of how public policy and sectoral productivity jointly shape sustainable MSME development, an area that has been underexplored in existing literature. Practically, the findings provide valuable insights for policymakers, development agencies, and local governments in designing more targeted and effective intervention strategies. For instance, the study highlights the critical role of government investment in infrastructure, education, and innovation as levers for enhancing MSME competitiveness and productivity. It also emphasizes the importance of fostering local supply chain linkages and supporting human capital development to strengthen regional economies. As such, the research serves as a guide for formulating integrated development programs that align fiscal policies with MSME empowerment, ultimately supporting inclusive and resilient economic growth across Indonesia.

Conclusion

This study demonstrates that Micro, Small, and Medium Enterprises (MSMEs) play a vital role in driving the dynamics of economic growth in Indonesia, particularly by enhancing local sector productivity. MSMEs contribute not only through job creation and income generation, but also by fostering innovation, encouraging product diversification, and increasing local export capacity. These dynamics contribute to more resilient and inclusive economic growth, particularly in underdeveloped regions. The findings also reveal that government spending significantly influences economic growth by improving local sector productivity, primarily through investments in infrastructure, education, and capacity-building initiatives that benefit MSMEs. These results underscore the importance of strategic fiscal policy in supporting regional development and promoting a more balanced economic structure. The implications of these findings are both theoretical and practical. Theoretically, the study strengthens the conceptual link between public investment, MSME development, and regional economic performance, offering empirical support for integrated development models. Practically, the findings suggest that

policymakers should focus on enhancing MSME productivity through targeted government spending that supports infrastructure, innovation, and market access. Moreover, the development of region-specific strategies that consider local sector characteristics could amplify the positive effects of government interventions, ultimately accelerating sustainable economic growth.

However, this study has several limitations. It relies on macro-level data at the regional level, which does not capture the heterogeneity and micro-level dynamics of individual MSMEs. As a result, it may overlook factors such as managerial capacity, digital adoption, or sectoral variations within MSMEs that could influence productivity. Additionally, the analysis does not differentiate between types of government spending, which limits the ability to identify which categories—such as education, infrastructure, or direct subsidies—are most effective in enhancing MSME growth and sectoral productivity. Future research should address these gaps by incorporating micro-level panel data on MSMEs across various sectors and regions. Such data would enable a more granular analysis of how specific types of government interventions affect MSME performance. Moreover, future studies could explore moderating or mediating variables, such as innovation capacity, digitalization, or access to finance, to better understand the mechanisms through which government support translates into economic growth. By deepening this understanding, future research can contribute to more effective and inclusive policy design for MSME development in Indonesia and similar emerging economies.

Authors' Declaration

The authors made substantial contributions to the conception and design of this study. The authors take responsibility for the data analysis, interpretation, and discussion of the results. The authors have read and approved the final manuscript.

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