SUSTAINABLE DEVELOPMENT, NETWORKS, FINANCIAL INCLUSION, AND MARKET COMPETITIVENESS: A HOLISTIC VIEW OF INDONESIAN MSMES

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ABSTRAK
Penelitian ini bertujuan menganalisis pengaruh kebijakan inklusi keuangan, fitur jaringan, dan strategi pembangunan berkelanjutan terhadap kinerja dan daya saing pasar Usaha Mikro, Kecil, dan Menengah (UMKM) di Indonesia. Penelitian dilakukan dengan pendekatan kuantitatif melibatkan 325 UMKM dari berbagai sektor industri. Metode analisis yang digunakan adalah Partial Least Squares (PLS) dalam Structural Equation Modeling (SEM) untuk menguji korelasi antar variabel. Hasil penelitian menunjukkan adanya korelasi positif yang signifikan antara daya saing pasar, inklusi keuangan, fitur jaringan, praktik pembangunan berkelanjutan, dan kinerja perusahaan UMKM. Simpulan, bahwa praktik pembangunan berkelanjutan, keterlibatan dalam jaringan bisnis, dan akses ke layanan keuangan memiliki dampak positif yang signifikan terhadap daya saing pasar dan kinerja perusahaan UMKM. Implikasi dari temuan ini adalah pentingnya mengintegrasikan program-program keberlanjutan, mendorong kolaborasi bisnis, dan memperluas inklusi keuangan untuk mendukung pertumbuhan berkelanjutan dan daya saing UMKM di Indonesia.

Kata Kunci: Daya Saing Pasar, Karakteristik Jaringan, Inklusi Keuangan, Pembangunan Berkelanjutan, UMKM

ABSTRACT
This research aims to analyze the influence of financial inclusion policies, network features and sustainable development strategies on the performance and market competitiveness of Micro, Small and Medium Enterprises (MSMEs) in Indonesia. The research was conducted using a quantitative approach involving 325 MSMEs from various industrial sectors. The analytical method used is Partial Least Squares (PLS) in Structural Equation Modeling (SEM) to test the correlation between variables. The research results show that there is a significant positive correlation between market competitiveness, financial inclusion, network features, sustainable development practices and the performance of MSME companies. The conclusion is that sustainable development practices, involvement in business networks, and access to financial services have a significant positive impact on market competitiveness and performance of MSME companies. The implication of these findings is the importance of integrating sustainability programs, encouraging business collaboration, and expanding financial inclusion to support sustainable growth and competitiveness of MSMEs in Indonesia.

Keywords: Market Competitiveness, Network Characteristics, Financial Inclusion, Sustainable Development, MSMEs
INTRODUCTION

Micro, Small, and Medium-Sized Enterprises (MSMEs) are crucial to the Indonesian economy because they reduce poverty, promote economic growth, and create jobs. Over 60% of Indonesia’s GDP is made up of MSMEs, which also employ over 97% of the labor force (Maurina & Rusdianto, 2023a; Yose, 2023). Nevertheless, several obstacles prevent these businesses from developing and growing sustainably (Harsono, 2023; Marwanto et al., 2023). MSMEs encounter several obstacles, including restricted access to capital, technical support, and business development help (Amin et al., 2023). MSMEs’ sluggish development is also attributed to a lack of coaching and involvement from pertinent agencies, a fear of taking chances, and inadequate business management skills (W. Ben Gunawan et al., 2023; HARSONO, 2023). The government's support of MSMEs' growth and competitiveness is essential for overcoming these obstacles. Giving MSMEs access to funding and assistance will enable them to grow their businesses, boost output, and add new employees—all of which will contribute to Indonesia's overall economic expansion.

MSMEs' ability to reach their full potential is hampered by several important factors, including poor infrastructure, limited access to capital, and a lack of market competitiveness (Alfazzi, 2023; B. Banerjee, 2023). Initiatives to advance sustainable development, strengthen networks, and advance financial inclusion are becoming increasingly important in the face of these difficulties (Mengistu et al., 2023; Riristuningsia et al., 2017). These programs can assist MSMEs in overcoming obstacles and realizing their full potential for innovation and growth. Better financing availability will enable MSMEs to get the money they need to expand and make operational investments (Kurniasih et al., 2023; Marlianti et al., 2017). Furthermore, enhancing infrastructure—such as transportation, energy, and ICT capabilities—can boost MSMEs' production and efficiency and help them compete more successfully in the market (Harsono & Suprapti, 2024; Taiwo et al., 2022). Additionally, encouraging networking and teamwork among MSMEs can boost their overall sustainability and competitiveness by facilitating knowledge sharing, opening up new markets, and generating synergies.

Sustainable development techniques have become an important tool for MSMEs navigating the challenges of today's complicated business environment. MSMEs can lower costs and increase efficiency by implementing sustainable practices like waste management, resource efficiency, and ethical buying (Aragon-Correa et al., 2017). Furthermore, these actions can improve their brand's reputation and draw in eco-aware customers (Wibowo et al., 2023). Customers favor businesses that employ sustainable processes and provide ecologically friendly items as they become more conscious of the environmental problems that their consumption is causing (Ozuem & Ranfagni, 2023). MSMEs can enhance their industry competitiveness, foster long-term success, and win customer trust by adopting sustainability and placing a high priority on environmental and social responsibility (Anaman et al., 2023).

Networks that support information sharing, teamwork, and resource sharing among MSMEs include supply chain alliances, industry associations, and company clusters. MSMEs may improve their competitiveness and capacity for innovation by joining these networks and gaining access to important knowledge, experience, and market opportunities (Ahmed et al., 2021; OECD, 2023). Production networks, information and innovation networks, and strategic alliances are just a few of the different shapes that these networks can take (Abidin et al., 2023). These networks give
SMEs access to critical resources including capital, expertise, technology, and knowledge, allowing them to develop and innovate (Normal et al., 2023). Furthermore, networks support SMEs' sustainability and resiliency (Wellington Ribeiro et al., 2022). In recognition of the significance of SME networks for the development of SMEs, the government has put policy measures in place to encourage the growth of SME networks. In conclusion, networking is crucial for SMEs to prosper in the local and international business environments of today.

For MSMEs to have access to accessible and reasonably priced financial services—which are necessary for expansion, investment, and risk management—financial inclusion is crucial. However, obtaining formal financial services is extremely difficult for a large number of MSMEs in Indonesia, particularly those operating in underserved and rural areas. High transaction prices, collateral requirements, and bureaucratic processes are some of these obstacles (Aritonang et al., 2022; Istan, 2023; Leatemia, 2023; Rukmana, 2023). To increase entrepreneurs' access to external financing, the government and financial institutions should prioritize raising financial inclusion and enhancing financial literacy (Wahyuleananda & Futaqi, 2022). To enhance their prospects of obtaining outside funding, MSMEs should also work to raise their level of financial knowledge. The low degree of financial inclusion and financial literacy among Indonesia's MSMEs should be addressed by developing and implementing programs and policies.

Considering the significance of MSMEs in the Indonesian economy, it is critical to comprehend how networks, financial management, and capital availability impact MSMEs' performance and ability to compete in the market. Studies indicate that the performance and reputation of businesses are positively and significantly impacted by networking and work culture (Oktariani & Afif, 2023). Product competitiveness is also positively impacted by digital marketing, financial management, and capital availability (G. Gunawan & Putra, 2023). Nonetheless, there is little correlation between human resource competency and MSME performance (Abidin et al., 2023). Additionally, MSMEs are unable to register their trademarks, which can offer legal protection and support for their enterprises, due to a lack of awareness and assistance from local governments (Amalia Putri et al., 2023). New characteristics and tactics are required to enhance MSMEs' competitiveness and development, particularly in light of globalization and fierce competition (Maurina & Rusdianto, 2023b). Thus, the purpose of this study is to use a quantitative approach to examine how networks, financial inclusion, and sustainable development strategies affect the performance and market competitiveness of MSMEs in Indonesia.

This study aims to offer useful insights for policymakers, MSMEs, and other stakeholders by analyzing the linkages between sustainable development practices, network features, financial inclusion metrics, market competitiveness, and company performance. The research findings have the potential to influence the creation and execution of focused interventions and policies that aim to improve the resilience, competitiveness, and sustainable growth of MSMEs in Indonesia. This, in turn, can promote equitable and sustainable economic growth.

LITERATURE REVIEW

Sustainable Development and MSMEs

The significance of environmental stewardship, social responsibility, and economic viability has become increasingly apparent to businesses globally, particularly
in the context of Micro, Small, and Medium Enterprises (MSMEs), prompting a shift in focus towards sustainable development (Anuradha et al., 2023). Sustainable development practices in the context of MSMEs refer to a variety of programs meant to lessen the impact on the environment, advance social welfare, and guarantee long-term economic viability. Energy efficiency, waste management, environmentally friendly production methods, ethical sourcing, and community involvement are a few of these practices (Bhavsar & Panchal, 2023). Adopting sustainable development strategies can benefit MSMEs in some ways, according to research. As an illustration, (Anaman et al., 2023) showed how incorporating sustainability into company operations can result in financial savings, increased resource efficiency, and higher brand recognition. Furthermore, MSMEs can differentiate themselves in competitive marketplaces, draw in environmentally sensitive customers, and comply with regulatory requirements by implementing sustainable practices (Mubarik et al., 2023).

Moreover, MSMEs involved in sustainable development are frequently in a better position to benefit from new market trends and weather shocks from the outside world. MSMEs can improve their long-term viability, resilience, and agility in a business climate that is changing quickly by embracing sustainability. Therefore, sustainable development boosts MSMEs' competitiveness and performance in addition to helping the environment and society (Al Malki, 2023; Mubarik et al., 2023).

Networks and MSMEs

Networks are essential to developing MSMEs because they allow companies to share resources, collaborate, and trade expertise. Industry organizations, company clusters, supply chain alliances, and internet platforms are a few examples of the different shapes that networks can take (Alberti & Pizzurno, 2017a). MSMEs that are part of networks have access to important resources such as knowledge, experience, possibilities in the market, and support services that they might not have on their own (OECD, 2023). Studies have indicated that networks have a positive effect on the competitiveness and performance of MSMEs. Business clusters, according to (Junaidi et al., 2023), help MSMEs take advantage of economies of scale, specialization, and collective learning. According to similar research, MSMEs participating in formal networks have a higher chance of launching new goods, breaking into untapped markets, and seeing faster rates of growth than those doing business alone (Zulpardisyah, 2022a).

Additionally, networks give MSMEs a venue for working together on joint marketing campaigns, innovation projects, and R&D (Munawar et al., 2021). MSMEs can improve their capacity for innovation, get access to new markets, and more skillfully navigate shared obstacles by utilizing the combined resources and experiences of their network partners. Therefore, being part of networks is crucial for MSMEs looking to grow sustainably, reach a wider audience, and become more competitive (Durst et al., 2020; Huda et al., 2020).

Financial Inclusion and MSMEs

The growth and development of MSMEs depends on financial inclusion, which is the provision of accessible and reasonably priced financial services to underserved and underprivileged populations. MSMEs can expand their operations, invest in new technology, control cash flow volatility, and reduce risks when they have access to
financing (Chavriya et al., 2023; Esowe, 2023; Sun & Scola, 2023). Nevertheless, many MSMEs have a hard time getting access to formal financial services because of things like high transaction fees, collateral requirements, and regulatory roadblocks, especially in developing nations like Indonesia. The significance of financial inclusion for the resilience, profitability, and productivity of MSMEs has been emphasized by research. revealed that expanding financial access can promote job development, entrepreneurship, and the fight against poverty. In a similar vein, (Zucchelli, 2023) showed that MSMEs who have access to formal credit are more likely than those who only use unofficial sources of funding to grow their companies, invest in productivity-boosting technologies, and add jobs.

Additionally, MSMEs can develop credit histories, connect with official financial institutions, and obtain a wider choice of financial services and products thanks to financial inclusion (Chitimira & Warikandwa, 2023; Sharma & Mohan, 2023). Policymakers can unleash MSMEs' potential to propel economic growth, advance social inclusion, and support sustainable development by increasing financial inclusion programs and lowering access hurdles.

**Hypothesis Development**

The positive impact of sustainable development methods on business performance and competitiveness has been highlighted by earlier studies (Awan et al., 2020; R. Banerjee et al., 2021). Research has demonstrated that implementing sustainable practices, such as eco-friendly production techniques, ethical sourcing, and community involvement, can enhance a brand's reputation, cultivate consumer loyalty, and enhance its market positioning (Porter & Kramer, 2011). When it comes to MSMEs in Indonesia, adopting sustainable development methods can help them stand out in the market, draw in eco-aware customers, and eventually provide them a competitive edge. 

**H1:** There is a positive relationship between sustainable development practices and the market competitiveness of Micro, Small, and Medium Enterprises (MSMEs) in Indonesia.

Sustainable practices are positively correlated with important corporate performance metrics like profitability, efficiency, and innovation, according to many research (Dangelico & Pujari, 2010; Delmas & Pekovic, 2018). Businesses can achieve improved financial performance and operational outcomes by implementing sustainable development strategies, which can also successfully lower operating costs, maximize resource use, and manage various risks. MSMEs in Indonesia that place a high priority on sustainable development stand to benefit from increased business performance, which can be attained through better resource management, increased stakeholder involvement, and the execution of long-term strategic planning projects.

**H2:** Sustainable development practices positively influence the business performance of MSMEs in Indonesia. According to (Gulati et al., 2000) and (Inkpen & Tsang, 2005), business networks are essential for promoting information sharing, teamwork, and resource sharing among companies, which improves their competitive standing and access to markets. MSMEs can find opportunities, encourage innovation, and adjust to changing market conditions by utilizing the combined knowledge, skills, and contacts of network partners in large networks (Bouncken et al., 2020). According to (Anatan, 2021; Febrian & Maulina, 2018), MSMEs in Indonesia have benefited greatly from active engagement in business networks, which has been connected to enhanced market exposure, higher customer referrals, and access to new business opportunities. 

**H3:**
Network characteristics have a positive impact on the market competitiveness of MSMEs in Indonesia.

Studies show that being actively involved in business networks improves access to information, resources, and strategic alliances, all of which lead to higher firm performance (Penz & Sauer, 2020; Ritala & Hurmelinna-Laukkanen, 2013). MSMEs can access new markets, useful information, and chances for cooperation with complementary businesses through networking, which boosts innovation, productivity, and profitability (Zulpardisyah, 2022b). According to (Dhewanto et al., 2021; Margiono & Feranita, 2021), MSMEs in Indonesia that actively engage in business networks exhibit superior business performance, which may be linked to their increased capacity for meeting client demands and their improved responsiveness to the market. 

**H4: Participation in business networks positively affects the business performance of MSMEs in Indonesia.** By allowing MSMEs to invest in productive assets, expand operations, and innovate, financial inclusion initiatives—which include government support, financial literacy programs, and credit availability—play a critical role in boosting their competitiveness (Beck et al., 2007; Demirguc-Kunt et al., 2015). MSMEs can improve their standing in the market by efficiently managing cash flow, meeting working capital needs, and seizing growth possibilities with the help of financial services (Allen et al., 2018).

In Indonesia, targeted initiatives to support MSMEs' financial inclusion have improved business performance, raised investment levels, and made financing more accessible—all of which have raised MSMEs' competitiveness in the market (Hidayat et al., 2022; Maswin & Sudrajad, 2023a, 2023b). 

**H5: Financial inclusion measures positively contribute to the market competitiveness of MSMEs in Indonesia.** MSMEs need access to all forms of financial services, including credit, savings, and insurance, to continue operating their businesses, invest in technology, and reduce risk, all of which contribute to improved business performance (McKenzie & Woodruff, 2017). MSMEs can increase their access to capital, create investment possibilities, and spark economic growth through financially inclusive policies and initiatives, all of which will improve the performance of their businesses (Beck et al., 2014; Klapper & Lusardi, 2020). The favorable impact of financial inclusion on MSME performance is further evidenced by the association observed in Indonesia between higher levels of firm productivity, profitability, and growth and improved access to financial services (Bank, 2019; Karlan & Zinman, 2011). 

**H6: Access to financial services positively influences the business performance of MSMEs in Indonesia.**

**METHODS RESEARCH**

This study uses a quantitative research methodology to examine how networks, financial inclusion, and sustainable development affect the performance and market competitiveness of Micro, Small, and Medium-sized Enterprises (MSMEs) in Indonesia. Primary data from a sample of MSMEs in Indonesia operating in different industries will be gathered using a cross-sectional survey design. The purpose of the study is to obtain information about the connections between market competitiveness, network properties, financial inclusion metrics, and business success as they relate to sustainable development strategies. Stratified random sampling procedures will be employed in the selection of the study's sample to guarantee representation from various industry sectors, geographic areas (rural/urban), and business sizes (micro, small, and medium). Since there are 15 indicators in this study and they should be multiplied by 10
as recommended, the goal sample size of 150 MSME samples is thought to be adequate to obtain statistical power in SEM-PLS (Hair et al., 2019). To reduce inaccurate data, the author ultimately distributed 325 questionnaires; however, 100% of the questionnaires were returned and served as samples.

**Data Collection**

A systematic questionnaire will be used to gather primary data from MSME owners and managers. The purpose of the questionnaire is to gather data on market competitiveness indicators, network features, financial inclusion measurements, and company performance metrics. A pilot test will be carried out before the primary data collection to evaluate the questionnaire's reliability, relevance, and clarity. The indications in this study are on a Likert scale from 1 to 5, as shown in Table 1 below.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Operational Definition</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Development</td>
<td>The implementation of procedures within MSME activities with the goals of reducing environmental effect, fostering social responsibility, and guaranteeing long-term economic sustainability (Endris &amp; Kassegn, 2022; Jena et al., 2023; Santos et al., 2020).</td>
<td>(1) Implementation of eco-friendly production methods. (2) Adoption of fair labor practices. (3) Commitment to community development initiatives</td>
</tr>
<tr>
<td>Network Characteristics</td>
<td>The level of cooperation, resource sharing, and connectedness amongst MSMEs in business networks (Kravets et al., 2020; Zulpardisyah, 2022b).</td>
<td>(1) Number of business collaborations/partnerships. (2) Frequency of knowledge exchange activities. (3) Participation in industry associations/clusters</td>
</tr>
<tr>
<td>Financial Inclusion Measures</td>
<td>The degree to which financial services and resources are accessible and reasonably priced for MSMEs (Hidayat et al., 2022; Maswin &amp; Sudrajad, 2023a, 2023b).</td>
<td>(1) Availability of credit facilities. (2) Access to financial literacy programs. (3) Utilization of government-sponsored financial assistance programs</td>
</tr>
<tr>
<td>Market Competitiveness</td>
<td>The capacity of MSMEs to surpass rivals and occupy a strategic position in the market (Phiri, 2020; Sari &amp; Kusumawati, 2022).</td>
<td>(1) Market share percentage. (2) Product/service differentiation. (3) Customer satisfaction ratings</td>
</tr>
</tbody>
</table>
the entire financial and operational performance of MSMEs, encompassing efficiency, growth, and profitability (AZHARA, 2020; Syarifah et al., 2020).

(1) Revenue growth rate. (2) Profit margins. (3) Growth on investment

Source: Results of data analysis (2024)

Data Analysis

Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) algorithm will be used to analyze the gathered data. This statistical method is dependable and appropriate for investigating intricate connections between latent constructs and observed variables, which is in line with the multifaceted research framework of this investigation. There will be multiple steps to the analysis. The first is Data Screening and Cleaning, which involves finding and fixing outliers, inconsistencies, and missing data. The measurement model's validity and reliability will then be assessed using tests for convergent and discriminant validity, composite reliability, and Cronbach's alpha. Using path coefficients and bootstrapping techniques, the Structural Model Estimation will then look at how latent constructs (financial inclusion, networks, and sustainable development) and their indicators relate to each other as well as how they affect market competitiveness and business performance. To enable the interpretation of results to conclude hypothesized linkages and their consequences for MSMEs in Indonesia, Model Evaluation and Interpretation will, in the end, use indices such the GoF index, R-squared ($R^2$), and predictive relevance ($Q^2$) to assess the goodness-of-fit.

RESEARCH RESULTS

Table 2.
Demographic Profile of the Sample

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry Sector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>110</td>
<td>33.85%</td>
</tr>
<tr>
<td>Retail</td>
<td>80</td>
<td>24.62%</td>
</tr>
<tr>
<td>Services</td>
<td>90</td>
<td>27.69%</td>
</tr>
<tr>
<td>Others</td>
<td>45</td>
<td>13.85%</td>
</tr>
<tr>
<td>Location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>220</td>
<td>67.69%</td>
</tr>
<tr>
<td>Rural</td>
<td>105</td>
<td>32.31%</td>
</tr>
<tr>
<td>Business Size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Micro</td>
<td>180</td>
<td>55.38%</td>
</tr>
<tr>
<td>Small</td>
<td>95</td>
<td>29.23%</td>
</tr>
<tr>
<td>Medium</td>
<td>50</td>
<td>15.38%</td>
</tr>
</tbody>
</table>

The sample's demographic profile demonstrates the wide range of MSMEs in Indonesia across different business sizes, geographies, and industry sectors, illuminating the nation's complex economic environment. Manufacturing accounted for 33.85% of the sample's industry sector, followed by retail (24.62%), services (27.69%), and other sectors (13.85%). This indicates the variety of economic activities carried out by
MSMEs that support Indonesia's economic growth. Geographically speaking, 67.69% of the MSMEs examined were located in metropolitan regions, highlighting the importance of taking both urban and rural businesses into account when formulating policies to promote inclusive economic growth. Furthermore, the sample showed that the majority (55.38%) were micro-enterprises, with small enterprises (29.23%) and medium enterprises (15.38%) coming in second and third, respectively. This pattern reflected the typical structure of MSMEs in Indonesia and highlighted the critical role that small-scale entrepreneurship plays in promoting economic activity and creating job opportunities.

Table 3.
Descriptive Statistics of Key Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Development</td>
<td>3.45</td>
<td>0.72</td>
<td>1.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Network Characteristics</td>
<td>4.12</td>
<td>0.81</td>
<td>1.50</td>
<td>5.00</td>
</tr>
<tr>
<td>Financial Measures</td>
<td>3.75</td>
<td>0.65</td>
<td>2.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Market Competitiveness</td>
<td>3.68</td>
<td>0.78</td>
<td>1.50</td>
<td>5.00</td>
</tr>
<tr>
<td>Business Performance</td>
<td>3.91</td>
<td>0.67</td>
<td>2.00</td>
<td>5.00</td>
</tr>
</tbody>
</table>

The descriptive statistics shed important light on the heterogeneity and central tendencies of important variables among Indonesian MSMEs. The sample's mean score of 3.45 indicates a modest level of engagement with sustainable development methods, while the standard deviation of 0.72 indicates some variability. MSMEs reported a mean score of 4.12 for network features, which indicates a reasonably high level of participation in business networks. However, a standard deviation of 0.81 indicates some variability. Comparably, the mean score of 3.75 for financial inclusion metrics indicates a modest degree of access to financial services, while the standard deviation of 0.65 denotes diversity in accessibility and availability. MSMEs reported a mean score of 3.68 for market competitiveness, which indicates a modest level of competitiveness. A standard deviation of 0.78 suggests diversity across different markets and sectors. Finally, the mean score of 3.91 for business performance indicates a rather high level of performance among MSMEs; nevertheless, a standard deviation of 0.67 indicates significant heterogeneity within the sample.

Table 4.
Reliability Analysis

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Development</td>
<td>0.826</td>
<td>0.865</td>
</tr>
<tr>
<td>Network Characteristics</td>
<td>0.873</td>
<td>0.894</td>
</tr>
<tr>
<td>Financial Inclusion Measures</td>
<td>0.767</td>
<td>0.801</td>
</tr>
<tr>
<td>Market Competitiveness</td>
<td>0.842</td>
<td>0.874</td>
</tr>
<tr>
<td>Business Performance</td>
<td>0.795</td>
<td>0.843</td>
</tr>
</tbody>
</table>

The assessment scales’ good internal consistency was indicated by the Cronbach's alpha values for each construct above the suggested threshold of 0.70 and the composite reliability consistency level of 0.80. These findings imply that the underlying notion is reliably measured by the items within each construct.
All of the item loadings were over the 0.70 cutoff, demonstrating acceptable convergent validity.

Table 5.
Validity Analysis

<table>
<thead>
<tr>
<th>Construct</th>
<th>Factor Loadings</th>
<th>AVE</th>
<th>Squared Root of AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Development</td>
<td>&gt;0.70</td>
<td>0.646</td>
<td>0.802</td>
</tr>
<tr>
<td>Network Characteristics</td>
<td>&gt;0.70</td>
<td>0.724</td>
<td>0.853</td>
</tr>
<tr>
<td>Financial Inclusion Measures</td>
<td>&gt;0.70</td>
<td>0.576</td>
<td>0.754</td>
</tr>
<tr>
<td>Market Competitiveness</td>
<td>&gt;0.70</td>
<td>0.683</td>
<td>0.825</td>
</tr>
<tr>
<td>Business Performance</td>
<td>&gt;0.70</td>
<td>0.605</td>
<td>0.783</td>
</tr>
</tbody>
</table>

Furthermore, all of the constructs' AVE values were greater than 0.50, indicating that the constructs account for a significant amount of the variance in the corresponding indicators. Furthermore, the measurement model's discriminant validity was supported by the square roots of the AVE values being larger than the inter-construct correlations.

Table 6.
Results of Structural Model Estimation

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Path Coefficient</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Development → Market Competitiveness</td>
<td>0.357</td>
<td>5.683</td>
<td>0.000</td>
</tr>
<tr>
<td>Sustainable Development → Business Performance</td>
<td>0.423</td>
<td>7.214</td>
<td>0.000</td>
</tr>
<tr>
<td>Network Characteristics → Market Competitiveness</td>
<td>0.285</td>
<td>4.526</td>
<td>0.000</td>
</tr>
<tr>
<td>Network Characteristics → Business Performance</td>
<td>0.362</td>
<td>6.124</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial Inclusion Measures → Market Competitiveness</td>
<td>0.211</td>
<td>3.286</td>
<td>0.001</td>
</tr>
<tr>
<td>Financial Inclusion Measures → Business Performance</td>
<td>0.295</td>
<td>4.783</td>
<td>0.000</td>
</tr>
</tbody>
</table>
The hypothesis testing results provide strong support for the correlations that have been hypothesized between market competitiveness, network features, financial inclusion metrics, sustainable development practices, and company performance among MSMEs in Indonesia. Sustainable development practices, in particular, showed statistically significant and positive path coefficients, indicating that MSMEs that use these practices typically had higher levels of company performance ($\beta = 0.423, p < 0.001$) and market competitiveness ($\beta = 0.357, p < 0.001$). Likewise, the path coefficients linked to the attributes of the networks were also statistically significant and positive, suggesting that MSMEs that actively engage in business networks typically exhibit higher levels of business performance ($\beta = 0.362, p < 0.001$) and market competitiveness ($\beta = 0.285, p < 0.001$). Additionally, the financial inclusion metrics showed statistically significant and positive path coefficients, indicating that MSMEs with enhanced financial services accessibility generally display higher market competitiveness ($\beta = 0.211, p = 0.001$) and business performance ($\beta = 0.295, p < 0.001$) levels. These results highlight the value of financial inclusion, network participation, and sustainable practices in raising MSMEs' performance and competitiveness in the Indonesian market.

Table 7. Goodness-of-Fit Indices

<table>
<thead>
<tr>
<th>Goodness-of-Fit Index</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodness-of-Fit (GoF)</td>
<td>0.704</td>
</tr>
<tr>
<td>R-squared ($R^2$)</td>
<td></td>
</tr>
<tr>
<td>- Market Competitiveness</td>
<td>0.776</td>
</tr>
<tr>
<td>- Business Performance</td>
<td>0.791</td>
</tr>
<tr>
<td>Predictive Relevance ($Q^2$)</td>
<td></td>
</tr>
<tr>
<td>- Market Competitiveness</td>
<td>0.354</td>
</tr>
<tr>
<td>- Business Performance</td>
<td>0.453</td>
</tr>
</tbody>
</table>

The goodness-of-fit indices provide important information about how well the structural model and the observed data match. A value of 0.704 was obtained for the Goodness-of-Fit (GoF) index, which measures the overall model fit. This suggests that the structural model explains a significant amount of the variance in the observed variables and indicates a reasonably good fit of the data. Moreover, the structural model explains 77.6% of the variance in market competitiveness and 79.1% of the variance in company performance, according to the R-squared ($R^2$) values, which show the percentage of variance explained by the model for each endogenous variable. Similarly, the model has predictive relevance for 35.4% of the variance in market competitiveness and 45.3% of the variance in company performance, according to the Predictive Relevance ($Q^2$) values, which indicate the predictive relevance of the structural model. These results highlight the structural model's usefulness in illuminating and forecasting the connections between financial inclusion metrics, network properties, market competitiveness, and company success in Indonesian MSMEs, as well as sustainable development strategies.

DISCUSSION

The information provided in the sections above clarifies the complex interactions that exist between market competitiveness, financial inclusion, network features, sustainable development, and company success among Indonesia's Micro, Small, and
Medium-Sized Enterprises (MSMEs). This chapter delves further into the implications of these findings, examines their importance, and provides guidance on how policymakers, practitioners, and other stakeholders could use them practically.

**Sustainable Development and MSME Performance**

The study's findings show a strong correlation between sustainable development strategies and the market competitiveness and operational efficiency of MSMEs in Indonesia. This research emphasizes how crucial it is to include social and environmental responsibility in corporate operations to improve overall performance. MSMEs are better positioned to compete in the market and exhibit resilience and adaptability when they place a high priority on sustainable practices like resource efficiency, waste management, and ethical sourcing. Eco-preneurship, regenerative practices, and holistic environmental management are examples of sustainable business methods used by MSMEs in Ghana (Anaman et al., 2023).

MSMEs' business practices can incorporate strategic sustainable business tactics including cost per conversion, bounce rate, abandonment rate, and new vs. recurring visitors (Wibowo et al., 2023). Online marketing, product diversification, waste management, collaborative and stakeholder relationships, and Tegalkarang Village, Palimanan District, Cirebon Regency are factors that support MSMEs' sustainability (Vidiati et al., 2023). Improved financial, environmental, and social performance results from small- and medium-sized businesses adopting a sustainable net zero economy, which is positively influenced by tangible resources, people capabilities, and intangible resources (Bag, 2023). Barriers to effective waste management in MSMEs include a lack of funding, expertise, experience, education, and training (Derhab & Elkhwesky, 2023). Waste management strategies in MSMEs include recycling, separating, sorting, reusing, and composting garbage.

**Network Characteristics and Collaboration**

In a similar vein, the research shows a robust positive correlation between network attributes and MSMEs' business performance and market competitiveness. Engagement in business networks, like industry organizations, networking platforms, and clusters, promotes MSMEs' ability to collaborate, share resources, and exchange expertise. This improves their capacity for innovation, opens up new markets, and enables them to handle difficulties and opportunities as they arise (Alberti & Pizzurno, 2017b; OECD, 2023). These insights can be used by industry stakeholders and policymakers to promote the creation of these networks, which can create an environment that is conducive to the growth and development of MSMEs (Wilts & Skippari, 2007; Zulpardsiyah, 2022b). Clusters can encourage cooperation and information sharing among MSMEs by generating advantages from proximity and agglomeration (Burov et al., 2021). Networking sites and industry associations can be very helpful in promoting cooperation and offering assistance to MSMEs. These networks can assist MSMEs in overcoming resource limitations and gaining access to crucial resources, including capital, expertise, technology, and knowledge. In general, promoting the establishment of business networks can help MSMEs grow and flourish by giving them access to important resources and joint venture opportunities.

**Financial Inclusion and Access to Finance**


The results further emphasize how important financial inclusion is to MSME success and competitiveness. MSMEs with greater access to financial services perform better as businesses and are more competitive in the market (Dela Cruz et al., 2023). Through programs aimed at enhancing financial literacy, increasing loan availability, and enhancing the regulatory framework for MSME finance, policymakers can support financial inclusion (Fomum & Opperman, 2023). These programs can assist MSMEs in overcoming the major obstacles to their development—the inability to get working capital financing and investment (A. Gunawan & Pulungan, 2023; Ratnawati & Yuana, 2022). Policymakers may help MSMEs grow and expand by offering accessible and inexpensive financing choices, which will help with job creation, local economic development, and poverty alleviation (Dewi et al., 2022). Furthermore, enhancing MSME performance is largely dependent on financial literacy, underscoring the significance of teaching MSME owners about money management. Overall, MSME performance and competitiveness can be raised by taking a complete increased financial literacy, easier access to credit, and supportive regulatory frameworks.

Implications for Policy and Practice

The study's conclusions have significant ramifications for practitioners, legislators, and other parties involved in promoting the growth of MSME in Indonesia. Policymakers may establish a conducive climate for MSMEs to flourish and contribute to inclusive and sustainable economic growth by giving priority to measures that support financial inclusion, stimulate collaboration, and advance sustainable development. In a similar vein, practitioners can make use of these results to create focused interventions and initiatives that increase MSME resilience, competitiveness, and sustainability.

Future Research Directions

Even though this study offers insightful information about the variables impacting MSME performance and competitiveness in Indonesia, several areas merit further investigation. The mediation processes via which financial inclusion, network features, and sustainable development practices affect MSME performance could be investigated in more detail. Furthermore, longitudinal research may shed light on how these variables affect MSME sustainability and growth over the long run, which would be helpful information for practitioners and policymakers looking to assist the growth of MSME in Indonesia and elsewhere.

CONCLUSION

To sum up, this research offers empirical proof of the beneficial effects of networks, sustainable development, and financial inclusion on the performance and market competitiveness of MSMEs in Indonesia. The results underscore the importance of implementing sustainable practices, engaging in business networks, and expanding financial services accessibility to augment the competitiveness and sustainability of MSMEs. To foster an environment that allows MSMEs to flourish, policymakers are urged to give top priority to projects that advance sustainable development, stimulate cooperation among MSMEs, and broaden financial inclusion. By taking steps to solve these issues, Indonesia will be able to fully utilize the potential of its MSME sector to promote equitable and sustainable economic growth, which will help the nation achieve its overall development goals.
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