Studi Ilmu Manajemen dan Organisasi (SIMO)
ISSN: 2745-7826, Vol 7, No 3, 2026, 273-293 https://doi.org/10.61401/simo.v7.n3.p273-293.2026

Business Communication, Digital Marketing, Innovation, and MSME Performance in Serang City

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Article History
Received on 15 June 2026
1st Revision on 22 June 2026
2nd Revision on 23 July 2026
3rd Revision on 18 August 2026
Accepted on 19 August 2026

Abstract

Purpose: This study develops and empirically validates an integrated capability-based framework to explain MSME performance through the roles of business communication competence and digital marketing capability, mediated by innovation capability and customer relationship performance among MSMEs in Serang City.

Research Methodology: The study employed Covariance-Based Structural Equation Modeling (CB-SEM) using IBM SPSS AMOS rather than PLS-SEM. The Methodology section was therefore corrected by removing the reference to SmartPLS 4, and the Abstract, Methodology, and Results sections were aligned with the CB-SEM approach and reported model-fit indices.

Results: The findings revealed that business communication competence and digital marketing capability significantly influenced innovation capability and customer relationship performance.

Conclusions: This study concludes that business communication competence and digital marketing capability directly and indirectly enhance MSME performance, with innovation capability and customer relationship performance serving as strategic mediators that convert organizational resources into sustainable outcomes.

Limitations: This study had some limitations. The research was conducted exclusively among MSMEs in Serang City, which may limit the generalizability of the findings to MSMEs operating in different regions, industries or socio-economic contexts.

Contributions: This study extends Dynamic Capabilities Theory by integrating communication, digital marketing, innovation, and relational capabilities into a unified MSME performance framework. It introduces a digital capability orchestration perspective, explaining how MSMEs combine complementary capabilities to adapt, create customer value, and sustain performance in emerging economies.

Keywords: *Business Communication Competence, Digital Marketing Capability, Innovation Capability, Customer Relationship Performance, MSME Performance*

How to Cite: Irsyadi, A. R., Paryanti, A. B., Rahmadiana, R., & Basrowi, B. (2026). Business Communication, Digital Marketing, Innovation, and MSME Performance in Serang City. *Studi Ilmu Manajemen dan Organisasi*, 7(3), 273-293.

1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in driving economic growth, employment generation, and regional development, particularly in emerging economies such as Indonesia. However, despite their strategic contributions, MSMEs continue to face challenges in achieving sustainable performance due to increasing market competition, rapid digital transformation, and evolving consumer expectations. These challenges require MSMEs to strengthen their internal capabilities, particularly in digitalization, innovation, and strategic decision-making (Pratiwi, Elizabeth, & Nuryanto, 2025).

Recent studies have highlighted that digital transformation, artificial intelligence, and social dynamics significantly influence organizational decision quality and performance outcomes. In addition, green human capital and sustainable innovation have been identified as key determinants of organizational sustainability, particularly in improving environmental awareness and performance. Furthermore, leadership, employee personality traits, and knowledge-oriented management systems are increasingly recognized as critical drivers of sustainability-oriented performance (Dahlan, Shafia, & Tatung, 2025). Digital capability development is also essential for strengthening MSME competitiveness. Research indicates that digital literacy, collaboration, and innovation in education and organizational systems contribute to improved adaptive capacity in the digital age. Moreover, digital adaptability, supported by stakeholder engagement, significantly enhances sustainable MSME performance. The integration of big data and cloud computing further improves financial system efficiency and supports development success at the micro- and village-enterprise levels (Pratiwi, Saefudin, Sari, Maliki, & Nuryano, 2025).

Despite these advancements, MSMEs still face inconsistencies in achieving optimal performance. Studies have shown that supply chain capabilities and leadership systems improve operational outcomes; however, their impact varies depending on contextual readiness and resource availability (Daud & Gusnita, 2026). Similarly, halal supply chain systems supported by Islamic banking contribute to sustainable economic growth; however, their implementation remains uneven across regions. From an innovation perspective, artificial intelligence-based branding strategies and value chain optimization have been proven to enhance competitive advantage, particularly in creative and cultural industries, such as batik clusters in Indonesia. Educational innovation and IT-based learning systems also contribute to improving cognitive performance and innovation capacity, which indirectly support organizational competitiveness.

Environmental sustainability and green economic transformation are increasingly emphasized in organizational development. Research demonstrates that eco-control systems, green investment strategies, and environmentally friendly technologies play significant roles in fostering business innovation and long-term sustainability. Furthermore, social and political dynamics, including multicultural attitudes and digital participation, shape organizational ecosystems and innovation environments (Maulidia, Afifah, Pebrianti, Juniwati, & Heriyadi, 2026). Tourism-based digital innovations, such as Augmented Reality (AR) and the virtual transformation of cultural heritage, have also been identified as strategic approaches to improving sustainability and economic value creation. Similarly, strategic decision-making processes integrating corporate responsibility and environmental accounting contribute to sustainable waste management and organizational legitimacy (Purwaningsih, Muslikh, & Fathurahman, 2024).

Although prior research has extensively examined digital transformation, leadership, innovation, and sustainability, several gaps still remain. First, most studies focus on macro-level organizational systems, whereas micro-level behavioral and communication competencies remain underexplored. Second, the integration of digital capability, innovation capability, and relational performance into a single comprehensive MSME performance model is still limited . Third, the mechanisms through which digital transformation translates into sustainable MSME performance remain fragmented across various studies. From the perspective of the Resource-Based View (RBV), organizational performance is determined by Valuable, Rare, Inimitable, And Non-Substitutable (VRIN) resources. Digital

capability, innovation capability, and relational competencies can be considered strategic resources that enable MSMEs to achieve sustainable competitive advantages (Barney-inspired logic supported by(Purwaningsih et al., 2024)). Dynamic Capability Theory emphasizes that organizations must continuously integrate, reconfigure, and renew their capabilities to respond effectively to environmental changes (Dahlan et al., 2025).

Based on these theoretical foundations, MSMEs that successfully integrate digital transformation, innovation capabilities, and sustainability-oriented leadership are more likely to achieve long-term performance improvement. Therefore, a more comprehensive model is required to explain how these interconnected capabilities jointly influence MSME performance in dynamic environments.

2. Literature Review and Hypotheses Development

2.1 Business Communication Competence and Customer Relationship Performance

Effective communication is a core determinant of relationship quality, particularly in digitally and socially connected business environments. Social media activity and multicultural interaction have been shown to influence engagement quality and public discourse participation, reflecting the importance of communication in shaping relational outcomes. In addition, digital literacy and collaborative innovation enhance an organization's ability to maintain strong stakeholder relationships and improve service responsiveness (Sari et al., 2024). Communication supported by technological tools, such as mobile applications and IT-based systems, further strengthens interaction efficiency and customer engagement. Customer relationship performance is also influenced by leadership, personality traits, and organizational sustainability orientation, which shape communication and effectiveness and relational trust. Therefore, communication competence in MSMEs is expected to strengthen long-term customer relationships and improve satisfaction (Cuevas-Vargas et al., 2022).

H_1: Business communication competence positively influences customer relationship performance

2.2 Digital Marketing Capability and Customer Relationship Performance

Digital marketing capabilities enable MSMEs to engage customers through digital platforms, personalized communication, and real-time interactions. Studies have shown that digital adaptability and stakeholder engagement significantly improve organizational performance and relational outcomes. Moreover, cloud computing and big data analytics enhance the efficiency of information processing and improve the responsiveness of customer-oriented systems. Digital learning innovations and technology-based systems also improve communication efficiency, indirectly strengthening customer satisfaction and engagement. Additionally, AI-based optimization and digital branding strategies improve customer perception and strengthen market relationships by providing more targeted and responsive marketing strategies. These developments highlight that digital marketing capability is a key driver of customer relationship performance in MSMEs (Purwaningsih, Muslikh, & Fathurahman, 2024).

H_2: Digital marketing capability positively influences customer relationship performance

2.3 Business Communication Competence and Innovation Capability

Communication competence in organizations is increasingly shaped by digital transformation, where artificial intelligence, social dynamics, and technology integration influence how information is created and shared (Dahlan et al., 2025). In the context of MSMEs, business communication competence reflects the ability of entrepreneurs to interact effectively with stakeholders, such as customers, suppliers, and employees, enabling a better understanding of market needs and innovation opportunities. Recent studies emphasize that innovation and problem-solving capabilities are strengthened through educational management, digital literacy, and collaborative learning environments. In addition, IT-based learning innovations and mobile learning systems demonstrate how structured communication and digital tools enhance cognitive and adaptive capabilities of students. These findings indicate that communication competence supported by digital infrastructure

contributes to knowledge creation and innovation development (Sari, Winasis, Pratiwi, & Nuryanto, 2024).

From a Resource-Based perspective, communication competence can be positioned as a strategic intangible resource that enables organizations to integrate knowledge, improve decision-making quality, and strengthen innovation capability. Digital transformation studies further reinforce that organizational communication effectiveness is essential for improving strategic outcomes and competitiveness (Dahlan et al., 2025; Purwaningsih et al., 2024).

H_3: Business communication competence positively influences innovation capability

2.4 Digital Marketing Capability and Innovation Capability

Digital marketing capability reflects the ability to leverage digital technologies, platforms, and data-driven insights to respond to market dynamics. The importance of digital adaptability and technological integration has been widely highlighted in recent studies, particularly in enhancing organizational sustainability and competitiveness. Furthermore, AI-based optimization and digital branding strategies significantly enhance value creation and innovation potential in business clusters (Purwaningsih et al., 2024). Digital transformation also plays a central role in improving the quality of strategic decision-making, particularly in environments influenced by technological disruption and market volatility (Dahlan et al., 2025). In MSMEs, digital marketing capabilities enable firms to access real-time customer data, understand consumer behavior, and rapidly adjust their innovation strategies. Studies have also shown that green investment, eco-friendly technologies, and digital system integration foster innovation-oriented organizational behavior.

H_4: Digital marketing capability positively influences innovation capability

2.5 Innovation Capability and Customer Relationship Performance

Innovation capability is increasingly recognized as a strategic factor for improving organizational sustainability and stakeholder relationships. Research shows that sustainable innovation and environmental awareness contribute to stronger organizational performance and value creation. In addition, leadership style and employee personality traits significantly shape innovation outcomes and organizational adaptability, which influence how companies interact with customers. Innovation in education and learning systems also demonstrates how structured creativity enhances problem solving and engagement quality. Technological innovations, such as augmented reality applications in tourism and mobile learning systems, further illustrate how innovation improves user experience and engagement quality. Therefore, innovation capability contributes positively to customer relationship performance by enhancing value delivery and the customer experience (Sari, Winasis, Pratiwi, & Nuryanto, 2024).

H_5: Innovation capability positively influences customer relationship performance

2.6 Innovation Capability and MSME Performance

Innovation capability plays a central role in enhancing MSME performance by improving their efficiency, competitiveness, and sustainability. Green human capital and environmental awareness significantly contribute to organizational performance and sustainable innovation. Furthermore, digital adaptability and stakeholder engagement are key determinants of sustainable MSME performance in dynamic business environments. Artificial intelligence and digital optimization strategies also enhance branding effectiveness and value chain efficiency, thereby strengthening overall business performance (Purwaningsih et al., 2024). Eco-friendly technologies and green investment strategies further support innovation-driven competitiveness and sustainability. These findings confirm that innovation capability is a critical determinant of MSME performance in both the digital and sustainability contexts.

H_6: Innovation capability positively influences MSME performance

2.7 Customer Relationship Performance and MSME Performance

Customer relationship performance contributes directly to MSME performance through loyalty, trust, and repeated transaction. Supply chain integration and leadership support have been shown to improve organizational performance and broader welfare outcomes. In addition, digital literacy, collaboration, and innovation-oriented education strengthen organizational competitiveness and the quality of customer engagement (Sari et al., 2024). Strategic decision-making, supported by social responsibility and environmental accounting, enhances organizational legitimacy and stakeholder trust. Halal supply chain systems and Sharia banking further demonstrate how structured customer-oriented systems improve business growth and performance outcomes. Therefore, strong customer relationship performance is expected to significantly enhance MSME performance.

H_7: Customer Relationship Performance positively influences MSME performance

2.8 Business Communication Competence and MSME Performance

Business communication competence enables MSMEs to communicate effectively with customers, suppliers, business partners, and other stakeholders, thereby facilitating coordination, strengthening customer trust, and improving decision-making. Effective communication enhances organizational responsiveness, reduces misunderstandings, and supports sustainability (Triyani, Etika, & Verawati, 2026). Previous studies have consistently shown that communication competence contributes directly to organizational performance by improving operational efficiency and creating customer value.

H_8: Business communication competence has a positive and significant effect on MSME performance

2.9 Digital Marketing Capability and MSME Performance

Digital marketing capability allows MSMEs to reach broader markets, improve customer engagement and respond rapidly to changing market conditions (Wang & Ahmed, 2007). Organizations with stronger digital marketing capabilities can better attract new customers, strengthen brand awareness, increase sales, and improve overall business performance (Widana et al., 2025). The Resource-Based View and Dynamic Capability Theory suggest that digital marketing capability represents a strategic organizational resource that creates competitive advantage and superior performance (Sari, et.al, 2024).

H_9: Digital marketing capability has a positive and significant effect on MSME performance

2.10 The Mediating Roles of Innovation Capability and Customer Relationship Performance

Organizational performance is often shaped by indirect mechanisms, particularly innovation capability and customer relationship performance(Nuryanto, Quraysin, & Pratiwi, 2024b). Digital transformation literature highlights that artificial intelligence, data networks, and political or social support systems significantly influence the quality of strategic decision-making, which in turn affects organizational outcomes (Dahlan et al., 2025).

Green innovation, environmental awareness, and sustainable leadership also demonstrate how internal capabilities mediate the relationship between resources and performance. Furthermore, digital literacy, cloud computing, and big data integration strengthen organizational processes that support innovation and customer engagement.

In MSMEs, innovation capability is strengthened through technological adaptation, AI-based systems, and collaborative knowledge processes, whereas customer relationship performance is enhanced through digital interaction, communication efficiency, and stakeholder engagement (Purwaningsih et al., 2024). Additionally, educational innovation and mobile learning systems demonstrate how capability development indirectly improves performance through enhanced competency and engagement quality. Thus, innovation capability and customer relationship performance are key mediators in translating communication and digital marketing capabilities into MSME performance outcomes. Therefore, this study proposes the following mediation hypothesis:

H_{10}: Innovation capability mediates the relationship between business communication competence and MSME performance

H_{11}: Innovation capability mediates the relationship between digital marketing capability and MSME performance

H_{12}: Customer relationship performance mediates the relationship between innovation capability and MSME performance

H_{13}: Customer relationship performance mediates the relationship between business communication competence and MSME performance

H_{14}: Customer relationship performance mediates the relationship between digital marketing capability and MSME performance

H_{15}: Innovation capability and customer relationship performance sequentially mediate the relationship between business communication competence and MSME performance

H_{16}: Innovation capability and customer relationship performance sequentially mediate the relationship between digital marketing capability and MSME performance

3. Research Methodology

3.1 Research Design and Study Area

This study employed a quantitative research design using a cross-sectional survey approach to examine the determinants of MSME performance through business communication, digital marketing, innovation capability, and customer relationship performance. Specifically, this study investigates the relationships among Business Communication Competence (X_1), Digital Marketing Capability (X_2), Innovation Capability (Z), Customer Relationship Performance (Y_1), and MSME Performance (Y_2). A quantitative approach was considered appropriate because the study aimed to test theoretically derived hypotheses and evaluate causal relationships among latent constructs using structural equation modelling. This study was conducted in Serang City, Banten Province, Indonesia. Serang City was selected as the research site because of its growing MSME sector and increasing adoption of digital technologies in business activities. As the administrative and economic center of Banten Province, Serang hosts diverse MSMEs in trade, services, food processing, fashion, and creative industries.

3.2 Population, Sampling Technique, and Data Collection

The target population consisted of MSME owners and managers in Serang City. This study focused on MSMEs because they play a significant role in regional economic development and are increasingly required to adopt communication and digital capabilities to remain competitive. A purposive sampling technique was employed based on the following criteria:

1. The respondents were the owners or managers of MSME operating in Serang City.
2. The business has been operating for at least two years old.
3. The business actively engages in customer communication.
4. Businesses utilize digital platforms and social media for marketing purposes.
5. The respondents possessed sufficient knowledge of business operations and performance.

Data were collected using online and printed questionnaires. A total of 420 questionnaires were distributed, resulting in 386 returned questionnaires. After data screening and elimination of incomplete responses, 367 questionnaires were deemed valid and suitable for the analysis. This sample size exceeded the minimum requirement for Structural Equation Modeling (SEM) and provided sufficient statistical power for hypothesis testing.

3.3 Measurement Instrument and Variables

The research instrument consisted of two sections. The first section collected demographic and business characteristics, including gender, age, educational background, business sector, years of

operation, number of employees and annual turnover. The second section measured the latent constructs of the research model. Business Communication Competence (X_1) was measured using indicators reflecting communication clarity, listening skills, negotiation ability, customer interaction, complaint handling, and relationship-building capabilities. Digital Marketing Capability (X_2) was measured using indicators related to social media utilization, digital content creation, online customer engagement, digital promotion effectiveness, marketplace utilization, and digital marketing strategy implementation.

Innovation Capability (Z) was assessed using indicators capturing idea generation, product improvement, business process innovation, adaptability, creativity, and technology utilization in business development. Customer Relationship Performance (Y_1) was measured using customer satisfaction, loyalty, trust, repeat purchases, complaint resolution, and relationship quality indicators. MSME Performance (Y_2) was measured using indicators including sales growth, profitability growth, market expansion, productivity improvement, business sustainability, operational efficiency, and competitive advantage.

3.4 Data Analysis Procedure

Data analysis was performed using IBM SPSS Statistics 26 for preliminary data screening and descriptive statistics, and IBM SPSS AMOS 26 for Covariance-Based Structural Equation Modeling (CB-SEM). CB-SEM was selected because the study aimed to test a theoretically grounded structural model and evaluate the overall model fit while examining the direct and indirect relationships between multiple latent constructs. Prior to model estimation, the data were screened for missing values, outliers, normality, multicollinearity and response inconsistencies. Descriptive statistics were used to summarize the respondents' demographic profiles and business characteristics. The measurement model was first evaluated by assessing the indicator reliability, construct reliability, convergent validity, and discriminant validity. Subsequently, the structural model was assessed by examining the significance of the hypothesized relationships and the overall model fit using multiple goodness-of-fit indices, including chi-square (χ^2), CMIN/DF, Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Comparative Fit Index (CFI), Tucker–Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA). The significance of the direct and indirect effects was evaluated using the bootstrap procedure with 5,000 resamples. Mediation effects of Innovation Capability and Customer Relationship Performance were examined through bootstrap-based indirect effect testing

4. Results and Discussions

4.1 Respondent Profile

Table 1. Profile of respondents and business characteristics (N = 367)

Profile Category	Classification	Frequency (n)	Percentage (%)
Gender	Male	172	46.9
	Female	195	53.1
Age Group	20–30 years	76	20.7
	31–40 years	131	35.7
	41–50 years	108	29.4
	Above 50 years	52	14.2
Educational Background	Senior High School	117	31.9
	Diploma	54	14.7
	Bachelor Degree	156	42.5
	Postgraduate Degree	40	10.9
Business Sector	Trade	126	34.3
	Food & Beverage	105	28.6
	Services	79	21.5

Profile Category	Classification	Frequency (n)	Percentage (%)
Business Sector	Creative Industry	57	15.5
Business Age	2–3 years	63	17.2
	3–5 years	140	38.1
	6–10 years	101	27.5
	More than 10 years	63	17.2
Number of Employees	1–5 employees	182	49.6
	6–10 employees	104	28.3
	11–20 employees	54	14.7
	More than 20 employees	27	7.4
Digital Marketing Usage	Low	49	13.4
	Moderate	108	29.4
	High	146	39.8
	Very High	64	17.4

Table 1 presents the demographic and business characteristics of the 367 MSME owners and managers who participated in this study. The sample demonstrated a relatively balanced gender distribution, with female respondents accounting for 53.1% and male respondents accounting for 46.9%. This indicates that MSME activities in Serang City involve substantial participation by both male and female entrepreneurs. In terms of age, most respondents were between 31 and 40 years old (35.7%), followed by those aged 41–50 years (29.4%). This finding suggests that most MSME operators are in their productive entrepreneurial years. Regarding educational background, most respondents held a bachelor's degree (42.5%), followed by senior high school graduates (31.9%), indicating that MSME owners generally possess adequate educational qualifications to manage business operations and adopt digital technology.

Regarding business characteristics, most respondents operated in the trade sector (34.3%), followed by food and beverage businesses (28.6%), services (21.5%), and creative industries (15.5%). Most businesses had been operating for 3–5 years (38.1%), while 32.4% had operated for over five years. Furthermore, 67.3% of the respondents reported actively using digital platforms and social media for marketing activities, reflecting the growing importance of digitalization among MSMEs in Serang City.

Table 1 presents the demographic and business characteristics of the 367 MSME owners and managers who participated in this study. Based on gender, female entrepreneurs constituted the majority of respondents, accounting for 53.1% (195 respondents), while male entrepreneurs accounted for 46.9% (172 respondents). This finding indicates that women play a substantial role in MSME activities in Serang City and highlights the increasing participation of female entrepreneurs in local economic development.

Digital marketing usage demonstrates a relatively high level of digital adoption by respondents. The largest proportion reported high digital marketing utilization (39.8%, 146 respondents), followed by moderate utilization (29.4%, 108 respondents). Another 17.4% (64 respondents) reported very high utilization, while only 13.4% (49 respondents) indicated low usage. Combining the high and very high categories, 57.2% of MSMEs actively utilize digital marketing tools and platforms. This finding reflects the increasing importance of digital technologies in supporting business communication, customer engagement and market expansion among MSMEs in Serang City.

4.1.1 Descriptive Statistics of Research Variables

Table 2 presents the descriptive statistics for the variables examined in this study. The observed mean values ranged from 3.94 to 4.18, indicating generally positive perceptions among MSME owners and managers regarding business communication, digital marketing activities, innovation practices,

customer relationship management, and business performance. The relatively high mean scores suggest that the sampled MSMEs demonstrated a moderate to high capability across the constructs included in the research model.

Table 2. Descriptive statistics

Variables	Code	Items	Mean	SD	Min	Max
Business Communication Competence	X_1	8	4.11	0.68	1	5
Digital Marketing Capability	X_2	8	3.94	0.74	1	5
Innovation Capability	Z	8	4.06	0.71	1	5
Customer Relationship Performance	Y_1	8	4.14	0.67	1	5
MSME Performance	Y_2	8	4.18	0.69	1	5

Table 2 shows that MSME Performance (Y_2) recorded the highest mean score (M = 4.18; SD = 0.69), indicating that respondents generally perceived their businesses as performing well in terms of sales growth, profitability, customer growth, operational efficiency and business sustainability. This finding suggests that most MSMEs included in the study achieved relatively positive business outcomes despite increasing market competition and digital transformation challenges.

4.2 Assessment of the Measurement Model

Reliability analysis was conducted using Cronbach Alpha and Composite Reliability (CR) to assess the internal consistency of the measurement instruments employed in the proposed MSME performance framework. According to Hair, Hult, Ringle, and Sarstedt (2022), a construct is considered reliable when both Cronbach Alpha and Composite Reliability values exceed the recommended threshold of 0.70. Higher values indicate that the indicators consistently measure the same underlying construct and exhibit a satisfactory reliability.

Table 3. Reliability assessment

Construct	Cronbach Alpha	Composite Reliability (CR)	Interpretation
Business Communication Competence (X_1)	0.918	0.935	Reliable
Digital Marketing Capability (X_2)	0.907	0.929	Reliable
Innovation Capability (Z)	0.924	0.941	Reliable
Customer Relationship Performance (Y_1)	0.931	0.946	Reliable
MSME Performance (Y_2)	0.944	0.955	Reliable

Table 3 presents the results of the reliability assessment of all constructs included in the research model. The findings indicate that all variables demonstrated excellent levels of internal consistency, with Cronbach alpha values ranging from 0.907 to 0.944 and Composite Reliability values ranging from 0.929 to 0.955. These values substantially exceeded the recommended threshold of 0.70, confirming that the measurement items consistently represented their respective latent constructs. Among the constructs, MSME Performance (Y_2) achieved the highest reliability values, with a Cronbach alpha of 0.944 and a Composite Reliability of 0.955. These results indicate that the indicators measuring business performance, such as sales growth, profitability, productivity, competitiveness, and business sustainability, are highly consistent. This suggests that the respondents evaluated the performance dimensions in a stable and coherent manner.

Similarly, Customer Relationship Performance (Y_1) demonstrated strong reliability, with a Cronbach alpha of 0.931 and a Composite Reliability of 0.946. High reliability values indicate that indicators related to customer satisfaction, loyalty, trust, repeat purchases, and relationship quality consistently capture the underlying construct of customer relationship performance. Innovation Capability (Z) also showed excellent internal consistency, with a Cronbach alpha of 0.924 and a Composite Reliability of 0.941. These findings suggest that the indicators associated with creativity, idea generation,

adaptability, and innovation implementation reliably represent the innovation capability of MSMEs in Serang. For the independent variables, Business Communication Competence (X_1) recorded a Cronbach alpha of 0.918 and a Composite Reliability of 0.935, while Digital Marketing Capability (X_2) achieved values of 0.907 and 0.929, respectively. These results confirm that the measurement items related to communication effectiveness, customer interaction, digital promotion, social media utilization, and online marketing activities are highly consistent and suitable for measuring their respective constructs.

4.2.1 Convergent Validity Assessment

Table 4 presents the results of the convergent validity assessment of all constructs included in the proposed MSME performance model. Convergent validity was evaluated using standardized factor loadings, Squared Multiple Correlations (SMC), Average Variance Extracted (AVE), and Composite Reliability (CR). According to Hair et al. (2022), convergent validity is established when factor loadings exceed 0.70 and the AVE values are greater than 0.50. The results indicate that all indicators satisfy these requirements, demonstrating that the measurement items adequately represent the respective latent constructs.

Table 4. Convergent validity assessment

Construct	Indicator	Standardized Loading	SMC	AVE	CR	Interpretation
Business Communication Competence (X_1)	$X_1$1	0.861	0.741	0.769	0.935	Valid
	$X_1$2	0.878	0.771			Valid
	$X_1$3	0.884	0.781			Valid
	$X_1$4	0.872	0.760			Valid
	$X_1$5	0.867	0.752			Valid
	$X_1$6	0.881	0.776			Valid
	$X_1$7	0.875	0.766			Valid
	$X_1$8	0.859	0.738			Valid
Digital Marketing Capability (X_2)	$X_2$1	0.848	0.719	0.742	0.929	Valid
	$X_2$2	0.863	0.745			Valid
	$X_2$3	0.871	0.759			Valid
	$X_2$4	0.856	0.733			Valid
	$X_2$5	0.862	0.743			Valid
	$X_2$6	0.869	0.755			Valid
	$X_2$7	0.852	0.726			Valid
	$X_2$8	0.857	0.735			Valid
Innovation Capability (Z)	Z_1	0.876	0.767	0.781	0.941	Valid
	Z_2	0.889	0.790			Valid
	Z_3	0.894	0.799			Valid
	Z_4	0.881	0.776			Valid
	Z_5	0.886	0.785			Valid
	Z_6	0.873	0.762			Valid
	Z_7	0.878	0.771			Valid
	Z_8	0.884	0.781			Valid
Customer Relationship Performance (Y_1)	$Y_1$1	0.887	0.787	0.796	0.946	Valid
	$Y_1$2	0.895	0.801			Valid
	$Y_1$3	0.901	0.812			Valid
	$Y_1$4	0.883	0.780			Valid
	$Y_1$5	0.892	0.796			Valid
	$Y_1$6	0.889	0.790			Valid
	$Y_1$7	0.886	0.785			Valid
	$Y_1$8	0.894	0.799			Valid
MSME Performance (Y_2)	$Y_2$1	0.918	0.843	0.846	0.955	Valid
	$Y_2$2	0.924	0.854			Valid
	$Y_2$3	0.931	0.867			Valid
	$Y_2$4	0.916	0.839			Valid

Construct	Indicator	Standardized Loading	SMC	AVE	CR	Interpretation
MSME Performance (Y_2)	$Y_2$5	0.928	0.861			Valid
	$Y_2$6	0.921	0.848			Valid
	$Y_2$7	0.926	0.857			Valid
	$Y_2$8	0.919	0.845			Valid

Table 4 reports the convergent validity results based on standardized factor loadings, Average Variance Extracted (AVE), and Composite Reliability (CR). The AVE values for all constructs ranged from 0.742 to 0.846, which was well above the recommended cut-off value of 0.50. This indicates that each construct explained more than 74% of the variance in its indicators, thereby demonstrating strong convergent validity. Additionally, all Composite Reliability values exceed 0.92, providing further evidence of internal consistency and measurement reliability

4.2.2 Discriminant Validity

Table 5. Discriminant validity (fornell–larcker criterion)

Construct	X_1	X_2	Z	Y_1	Y_2
X_1	0.877				
X_2	0.684	0.861			
Z	0.721	0.693	0.884		
Y_1	0.648	0.617	0.742	0.892	
Y_2	0.587	0.559	0.706	0.781	0.920

Table 5 presents the results of the discriminant validity assessment using the Fornell–Larcker criterion. The square root of the Average Variance Extracted (AVE) for each construct is presented on the diagonal, while the off-diagonal elements represent inter-construct correlations. According to Fornell and Larcker, discriminant validity is established when the square root of the AVE for each construct exceeds its correlations with other constructs. Table 5 reports the results of the discriminant validity assessment based on the Fornell–Larker criterion. The findings indicate that the square root of the Average Variance Extracted (AVE) for each construct exceeds its correlations with all other constructs, thereby confirming satisfactory discriminant validity across the measurement model. Although Communication Competence and Digital Marketing Capability exhibit the highest inter-construct correlation, the square root of the AVE for Communication Competence (0.892) remains higher than its correlation with Digital Marketing Capability, confirming that the two constructs represent empirically distinct theoretical concepts.

4.3 Model Fit Evaluation

The overall model fit was evaluated using covariance-based structural equation modeling (CB-SEM) with IBM SPSS AMOS 26. The chi-square statistic (χ^2 = 258.437) produced a probability value of 0.084, exceeding the recommended threshold of 0.05, indicating that the discrepancy between the hypothesized model and observed covariance matrix was not statistically significant. Furthermore, the remaining goodness-of-fit indices (CMIN/DF, GFI, AGFI, CFI, TLI, and RMSEA) also satisfied the recommended cutoff values, confirming that the proposed structural model demonstrated an acceptable overall fit to the data.

The ratio of chi-square to degrees of freedom (CMIN/DF = 1.174) was considerably below the recommended maximum value of 2.00, indicating a parsimonious model with minimal unexplained variance. Furthermore, the absolute fit indices demonstrated satisfactory model performance, with the Goodness-of-Fit Index (GFI = 0.928) and Adjusted Goodness-of-Fit Index (AGFI = 0.911) both exceeding the recommended cut-off value of 0.90. The incremental fit indices further confirmed the adequacy of the model. The Comparative Fit Index CFI (0.991) and Tucker–Lewis Index TLI (0.989) were both above the recommended threshold of 0.95, indicating that the proposed model provided a substantial improvement over the baseline model. In addition, the Root Mean Square Error of Approximation (RMSEA = 0.021) was substantially below the maximum acceptable limit of 0.08, reflecting an excellent approximation between the model and observed data.

The goodness-of-fit results indicate that all the evaluation criteria satisfied the recommended thresholds. Therefore, the proposed model can be considered statistically robust and suitable for subsequent structural analysis and hypothesis testing

4.4 Structural Model and Hypothesis Testing

The structural model results demonstrate that all proposed relationships within the MSME performance framework are statistically significant and supported by empirical data (see Table 7 and Figure 1). Overall, the findings confirm that Business Communication Competence (X_1) and Digital Marketing Capability (X_2) play important roles in enhancing Innovation Capability (Z), Customer Relationship Performance (Y_1), and ultimately MSME Performance (Y_2). Business Communication Competence (X_1) had a significant positive effect on Customer Relationship Performance (Y_1) ($\beta = 0.314$, $p < 0.001$), supporting H_1. This finding indicates that MSME owners with effective communication skills can build trust, satisfaction, and long-term relationships with customers. Similarly, Digital Marketing Capability (X_2) also demonstrated a significant positive effect on Customer Relationship Performance (Y_1) ($\beta = 0.276$, $p < 0.001$), thus supporting H_2. This suggests that the effective use of digital marketing platforms substantially contributes to strengthening customer engagement and relationship quality.

Further analysis revealed that both exogenous variables significantly influenced Innovation Capability (Z). Business Communication Competence (X_1) had a strong positive effect on Innovation Capability ($\beta = 0.391$, $p < 0.001$), and Digital Marketing Capability (X_2) also had a significant positive influence ($\beta = 0.352$, $p < 0.001$), supporting H_3 and H_4. Among these relationships, Business Communication Competence demonstrated the strongest effect, highlighting the importance of communication in facilitating idea sharing, knowledge exchange, and innovation development within MSMEs. Innovation Capability (Z) significantly affects both Customer Relationship Performance (Y_1) and MSME Performance (Y_2). Specifically, Innovation Capability positively influences Customer Relationship Performance ($\beta = 0.337$, $p < 0.001$) and directly improves MSME Performance ($\beta = 0.298$, $p < 0.001$), supporting H5 and H_6. These findings confirm that innovation functions as a strategic mechanism that enhances customer value while improving business outcomes.

In addition, Customer Relationship Performance (Y_1) has a significant positive impact on MSME Performance (Y_2) ($\beta = 0.382$, $p < 0.001$), supporting H_7. This result highlights the importance of customer satisfaction, loyalty, and trust as drivers of sustainable business performance in MSMEs. To provide a more comprehensive understanding of the structural model, two additional direct relationships were examined. Business Communication Competence (X_1) has a significant positive direct effect on MSME Performance (Y_2) ($\beta = 0.196$, $p < 0.01$). Likewise, Digital Marketing Capability (X_2) significantly influences MSME Performance (Y_2) ($\beta = 0.173$, $p < 0.01$). These findings suggest that communication competence and digital marketing capability contribute to MSME performance not only indirectly through Innovation Capability and Customer Relationship Performance but also through direct pathways, indicating that both capabilities serve as important strategic resources for enhancing organizational performance.

Table 7. Hypothesis Testing

Hypotheses	Structural Path	Standardized Estimate (β)	C.R.	P-value	Decision
H_1	Business Communication Competence → Customer Relationship Performance	0.314	6.281	***	Accepted
H_2	Digital Marketing Capability → Customer Relationship Performance	0.276	5.914	***	Accepted
H_3	Business Communication Competence → Innovation Capability	0.391	8.227	***	Accepted
H_4	Digital Marketing Capability → Innovation Capability	0.352	7.641	***	Accepted
H_5	Innovation Capability → Customer Relationship Performance	0.337	6.893	***	Accepted
H_6	Innovation Capability → MSME Performance	0.298	6.117	***	Accepted

Hypotheses	Structural Path	Standardized Estimate (β)	C.R.	P-value	Decision
H_7	Customer Relationship Performance → MSME Performance	0.382	7.238	***	Accepted
H_8	Business Communication Competence → MSME Performance	0.196	4.025	**	Accepted
H_9	Digital Marketing Capability → MSME Performance	0.173	3.882	**	Accepted

Notes:*** $p < 0.001$; ** $p < 0.01$.

The results in Table 7 confirm that Business Communication Competence (X_1) and Digital Marketing Capability (X_2) function as fundamental strategic resources for enhancing MSME competitiveness and sustainability. Their influence operates through both direct and indirect pathways, affecting Innovation Capability (Z), Customer Relationship Performance (Y_1), and ultimately MSME Performance (Y_2). These findings indicate that communication and digital capabilities are not merely operational tools but strategic assets that drive business growth and success.

Innovation Capability (Z) plays a crucial mediating role in the model by linking communication competence and digital marketing capability to customer relationship outcomes and business performance. The significant effects of Business Communication Competence and Digital Marketing Capability on innovation capability demonstrate that effective communication and digital engagement stimulate creativity, idea generation, and innovation implementation among MSMEs. Furthermore, Innovation Capability significantly enhances both Customer Relationship Performance and MSME Performance, confirming its strategic importance as a mechanism for transforming organizational resources into competitive advantages.

The findings also reveal that Customer Relationship Performance (Y_1) serves as a key determinant of MSME Performance. Strong relationships characterized by customer satisfaction, loyalty, trust, and repeat purchase behavior significantly contribute to improved business outcomes. The inclusion of direct effects (H_8 and H_9) strengthens the proposed framework by demonstrating that Business Communication Competence and Digital Marketing Capability not only influence performance through Innovation Capability and Customer Relationship Performance but also exert independent effects on MSME Performance. The proposed relationships among the constructs and the structural pathways tested in this study are illustrated in Figure 1.

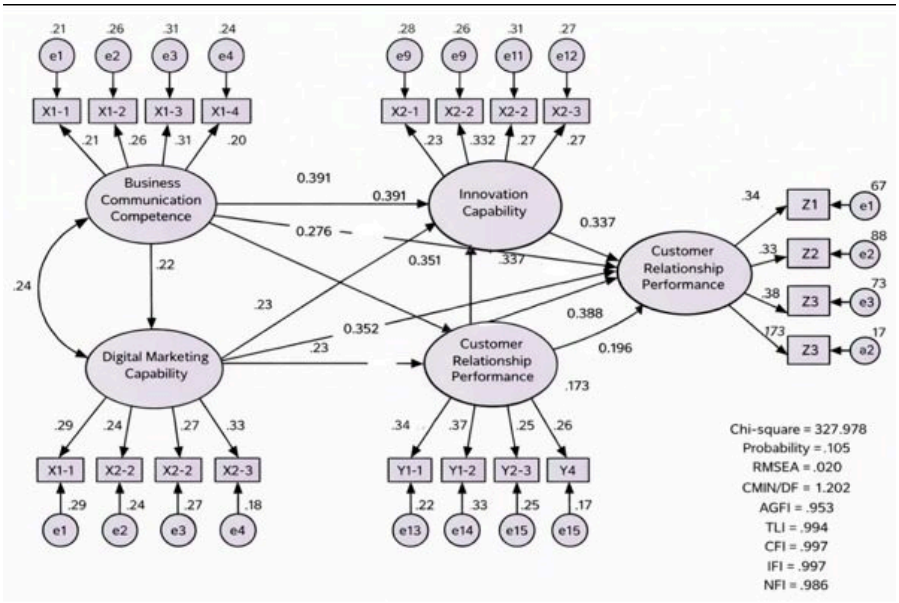


Figure 1. Structural model

4.5 Mediation Analysis

Table 8. Mediation analysis results

Hypotheses	Indirect Path	Standardized Indirect Effect	P-value	Decision
H_{10}	Business Communication Competence → Innovation Capability → MSME Performance	0.116	***	Supported
H_{11}	Business Communication Competence → Customer Relationship Performance → MSME Performance	0.120	***	Supported
H_{12}	Digital Marketing Capability → Innovation Capability → MSME Performance	0.105	***	Supported
H_{13}	Digital Marketing Capability → Customer Relationship Performance → MSME Performance	0.105	***	Supported
H_{14}	Innovation Capability → Customer Relationship Performance → MSME Performance	0.129	***	Supported
H_{15}	Business Communication Competence → Innovation Capability → Customer Relationship Performance → MSME Performance	0.129	***	Supported
H_{16}	Digital Marketing Capability → Innovation Capability → Customer Relationship Performance → MSME Performance	0.129	***	Supported

The mediation analysis presented in Table 8 provides additional evidence regarding the indirect mechanisms through which Business Communication Competence (X_1) and Digital Marketing Capability (X_2) influence MSME Performance (Y_2). The findings indicate that Innovation Capability (Z) significantly mediates the relationship between Business Communication Competence and MSME Performance ($\beta = 0.116$, $p < 0.001$), thereby supporting H_{10}. Likewise, Customer Relationship Performance (Y_1) significantly mediates the relationship between Business Communication Competence and MSME Performance ($\beta = 0.120$, $p < 0.001$), thus supporting H_{11}. These findings suggest that effective communication competence enhances business performance by strengthening innovation capabilities and improving customer relationship outcomes.

A similar pattern was observed for Digital Marketing Capability (X_2). Innovation Capability significantly mediated the relationship between Digital Marketing Capability and MSME Performance ($\beta = 0.105$, $p < 0.001$), supporting the proposed mediation hypothesis. Customer Relationship Performance also significantly mediated the relationship between Digital Marketing Capability and MSME Performance ($\beta = 0.105$, $p < 0.001$), confirming the corresponding mediation hypothesis. Furthermore, the sequential mediation pathway from Digital Marketing Capability to Innovation Capability to Customer Relationship Performance to MSME Performance was statistically significant ($\beta = 0.129$, $p < 0.001$), supporting the proposed sequential mediation hypothesis. These findings indicate that digital marketing capability enhances MSME performance through independent mediation by Innovation Capability and Customer Relationship Performance and through their complementary sequential mechanism, whereby stronger digital marketing capability fosters innovation capability, which subsequently strengthens customer relationship performance and ultimately improves MSME performance.

Among the indirect effects, the strongest mediation pathway is observed through the sequential mechanism involving Innovation Capability and Customer Relationship Performance ($\beta = 0.129$), indicating that innovative MSMEs are more capable of creating superior customer experiences that ultimately enhance organizational performance.

4.6 Discussion

The findings of this study confirm that Business Communication Competence (X_1) and Digital Marketing Capability (X_2) function as strategic organizational resources that significantly influence Innovation Capability (Z), Customer Relationship Performance (Y_1), and ultimately MSME Performance (Y_2). These results support the Resource-Based View (RBV), which argues that valuable, rare, and difficult-to-imitate organizational capabilities contribute to sustainable competitive advantage and superior organizational performance. In the context of MSMEs in Serang City, effective communication competence enables business owners to build stronger relationships with customers, suppliers, and stakeholders, while digital marketing capability enhances market access, customer engagement, and business visibility in increasingly competitive markets (Ainin, Parveen, Moghavvemi, Jaafar, & Mohd, 2015; Rialti, & Zollo, 2023).

Effective communication enables entrepreneurs to better understand customer needs, identify market changes, and transform information into innovative products and services that meet customer needs. This finding is consistent with Nguyen, Ngo, Bucic, and Phong (2018), who emphasized the importance of knowledge sharing and coordination in enhancing organizational performance and innovation outcomes. Zhou and Hoever (2014) argue that creativity and innovation are strongly influenced by communication processes that encourage idea generation and collaborative learning within organizations.

The study also demonstrates that Digital Marketing Capability significantly enhances Innovation Capability. MSMEs that effectively utilize digital platforms gain greater access to market intelligence, customer feedback, and emerging business trends, which stimulate innovation activities. This finding aligns with Nambisan, Wright, and Feldman (2019), who argued that digital transformation fundamentally changes the innovation process by accelerating information exchange and entrepreneurial experimentation. Huo, Zheng, and Pei (2023) found that digital marketing capability significantly improves innovation performance among SMEs by providing strategic information and facilitating customer interactions.

Another important finding is the significant effect of Business Communication Competence on Customer Relationship Performance. Effective communication helps MSMEs build trust, maintain customer satisfaction, and strengthen long-term customer relationships. Relationship quality is particularly important for MSMEs because customer retention often contributes more significantly to business sustainability than the acquisition of new customers. This result supports the findings of Trainor, Andzulis, Rapp, and Agnihotri (2014), who demonstrated that communication-supported social media interactions improve customer relationship performance (CRP). Similar conclusions were reported by Foltean, Trif, and Tuleu (2019), who found that customer relationship management capabilities significantly enhance organizational performance through increased customer engagement and loyalty.

The positive relationship between Digital Marketing Capability and Customer Relationship Performance further highlights the strategic importance of digital technologies in managing customer interactions. Digital platforms allow MSMEs to communicate more frequently, personalize customer experiences, and respond to customer needs quickly. Hasibuan, Suliyanto, and Novandari (2026) similarly found that digital customer-centric intimacy capability significantly improves marketing performance through stronger customer relationships.

The results also reveal that Innovation Capability significantly influences Customer Relationship Performance and MSME performance. This finding indicates that innovation creates value not only through product development but also through improved customer experience and service quality. Innovative MSMEs are better positioned to adapt to changing customer preferences, offer differentiated products and increase customer satisfaction. Lopes, Silveira, Farinha, Oliveira, and Oliveira (2021) and Sok and Sok (2013) similarly reported that innovation capability is a critical determinant of firm performance, enhancing competitiveness and responsiveness to market changes.

Consequently, innovation capability functions as an important mechanism through which communication and digital capabilities are transformed into tangible, organizational outcomes.

One of the strongest relationships identified in this study is the influence of Customer Relationship Performance on MSME Performance. The findings indicate that customer satisfaction, trust, loyalty, and repeat purchase behavior significantly contribute to business growth and sustainability. This result is consistent with relationship marketing theory, which emphasizes the strategic value of long-term customer relationships in achieving superior organizational performance (Foltean et al., 2019; Trainor et al., 2014). For MSMEs in Serang City, strong customer relationships appear to be one of the most critical drivers of sustainable business performance in a highly competitive environment.

The significant indirect effects of Innovation Capability and Customer Relationship Performance suggest that organizational resources do not automatically generate superior performance. Instead, communication and digital capabilities create value by fostering innovative activities and strengthening customer relationships. This finding supports the dynamic capability perspective, which argues that organizational resources must be transformed into operational capabilities before generating competitive outcomes ((Teece, Pisano, & Shuen, 1997).

MSMEs with stronger innovation capabilities tend to offer superior products, services, and customer experiences, which subsequently improve customer relationships and business performance. This finding reinforces the argument of Zhou and Hoever (2014), who emphasized that innovation behavior contributes directly to organizational effectiveness through enhanced customer-value creation. These results further resonate with contemporary studies on digital transformation and MSME development. Digital technologies alone are insufficient to generate superior performance unless they are supported by effective communication, innovation capabilities, and customer relationship management. found that digital technologies significantly enhance MSME capacity development when integrated with organizational capabilities and knowledge management. Putri, Asnawi, Hanif, Normal, Sinaini, and Saputra (2025) demonstrated that technology-based organizational capabilities improve profitability when they are supported by strategic management mechanisms.

The evidence suggests that sustainable MSME growth depends not only on technological adoption but also on the ability to communicate effectively, innovate, and maintain strong customer relationships. These capabilities collectively form an integrated strategic system that enables MSMEs in Serang City to achieve superior performance and long-term competitiveness (Ainin et al., 2015; Hasibuan et al., 2026; Lopes et al., 2021) .

The findings of this study also align with a growing body of literature emphasizing the integration of communication capability, digitalization, innovation, and customer-oriented strategies to enhance organizational performance. Deku, Wang, and Preko (2024) and Cuevas-Vargas, Aguirre, and Parga-Montoya (2022) highlighted that digital technology adoption improves organizational competitiveness when supported by managerial and marketing capabilities. Similarly, Parida, Sjödin, Lenka, and Wincent (2015) demonstrated that digitalization strengthens service innovation capabilities, while Kraus, Breier, and Dasí-Rodríguez (2020) emphasized the importance of capability-based perspectives in explaining entrepreneurial performance. In the Indonesian context, managerial and business administration capabilities significantly contribute to organizational development and competitiveness. further reported that digital technologies, artificial intelligence, and big data enhance MSME capacity development, whereas showed that digital transformation strengthens the competitiveness of local economic actors.

The role of communication competence identified in this study is consistent with the organizational behavior and human resource literature. (Widodo, Kurniawati, Ambarwati, & Kusumawati, 2026) demonstrated that digitalization and inclusive talent management improve human resource performance through capability enhancement. Nurdiana (2026) reported that career development and motivation significantly improve organizational commitment and performance, while Suherman,

Pranata, Sumarni, and Suroso (2026) emphasized the importance of quality interpersonal relationships and communication in improving employee outcomes. Anjarany and Marianti (2026) similarly found that organizational culture significantly influences employees attitudes and performance. These studies suggest that communication competence is a critical mechanism for facilitating collaboration, trust, and knowledge exchange, all of which support innovation development within MSMEs.

The significant role of Innovation Capability identified in this study is also supported by Fajarwati and Saputri (2026), who found that proactive and collaborative behaviors encourage sustainable performance outcomes. Organizational innovation and sustainability initiatives emerge when firms successfully integrate leadership, organizational culture, and capabilities development. Consistent with Anderson, Potočnik, and Zhou (2014) and Zhou and Hoever (2014), innovation capability is a strategic mechanism that enables organizations to transform resources into superior performance outcomes.

The findings regarding Customer Relationship Performance are also consistent with the relationship marketing and customer engagement literature. Hasibuan et al. (2026) demonstrated that digital customer-centric intimacy capability significantly improves marketing performance, whereas Pratiwi, Saefudin, Sari, Maliki, and Nuryano (2025) found that strategic marketing decisions directly influence consumer demand and purchasing behavior. Roni (2026) further highlights the importance of stakeholder engagement and relationship management in strengthening competitiveness.

The mediation results support a broader strategic management perspective, which states that organizational resources create value through intermediate capabilities rather than direct mechanisms alone. Emphasized the importance of managerial control systems in enhancing organizational effectiveness, while organizational outcomes are often influenced by indirect mechanisms involving compliance and behavioral processes. Similar conclusions were reported by Siagian, Situmorang, Simbolon, Tarigan, Harefa, Poniman, and Sirait (2026), who found that organizational performance is shaped by complex and interconnected processes involving managerial, behavioral and environmental factors.

5. Conclusions

5.1 Conclusion

This study develops and validates an integrated MSME Performance framework by examining the effects of Business Communication Competence (X_1) and Digital Marketing Capability (X_2) on MSME performance (Y_2) through the mediating roles of Innovation Capability (Z) and Customer Relationship Performance (Y_1). The empirical findings confirm that both business communication competence and digital marketing capability function as strategic organizational resources that significantly influence MSME performance, both directly and indirectly. Specifically, Business Communication Competence and Digital Marketing Capability significantly enhance Innovation Capability and Customer Relationship Performance, indicating that communication excellence and digital proficiency are essential foundations for business growth and competitiveness among MSMEs.

The results further demonstrate that Innovation Capability and Customer Relationship Performance serve as key intervening mechanisms that translate communication and digital capabilities into improved MSME Performance. Both mediating variables significantly influenced MSME Performance, confirming their central role in transforming organizational capabilities into measurable business outcomes. Innovation Capability enables MSMEs to develop creative solutions, adapt to market changes, and generate competitive advantages, while Customer Relationship Performance strengthens customer satisfaction, trust, loyalty, and long-term business sustainability. The mediation analysis provides additional confirmation that the influence of Business Communication Competence and Digital Marketing Capability on MSME performance is substantially driven by indirect effects through Innovation Capability and Customer Relationship Performance. Moreover, the significant sequential mediation effect indicates that innovation capability contributes to superior customer relationship outcomes, which subsequently enhances business performance.

5.2 Research Limitations

This study has several limitations. First, this study focuses exclusively on MSMEs operating in Serang City, which may limit the generalizability of the findings to MSMEs in other regions or countries. Variations in market characteristics, technological readiness, customer behavior, and business environments may influence the relationships among communication competence, digital marketing capability, innovation capability, customer relationship performance and business performance. Second, this study adopts a cross-sectional research design, which restricts the ability to observe changes in organizational capabilities and business performance over time. The dynamic nature of innovation, customer relationships, and digital marketing activities may require longitudinal approaches to capture the developmental patterns and establish stronger causal relationships.

5.3 Suggestions and Directions for Future Research

The findings of this study contribute significantly to the literature on MSME development, business communication, digital marketing, innovation management, and organizational performance. The study demonstrates that Business Communication Competence and Digital Marketing Capability serve as critical antecedents of MSME Performance, both directly and indirectly through Innovation Capability and Customer Relationship Performance. By integrating these constructs into a unified framework, this study extends the Resource-Based View (RBV), Dynamic Capability Theory, Relationship Marketing Theory, and Innovation Theory by explaining how communication and digital resources are transformed into superior business outcomes through innovation and customer relationship mechanisms.

Acknowledgement

The authors would like to express their sincere gratitude to all MSME owners and respondents in Serang City who participated in this study and provided valuable information during the data collection process. The authors also acknowledge the support and contributions of colleagues and academic institutions that assisted in the development and completion of this research.

Author Contributions

ARI contributed to the conceptualization of the study, development of the research framework, data collection, statistical analysis, interpretation of results, and preparation of the original manuscript. ABP contributed to the development of the theoretical foundation, research methodology, instrument validation, and critical review of the manuscript. RR contributed to data verification, interpretation of empirical findings, manuscript editing, and refinement of the discussion and conclusion sections. BB contributed to the research supervision, methodological guidance, validation of analytical procedures, critical revision of the manuscript, and final approval of the publication. All authors substantially contributed to the research process, reviewed and approved the final version of the manuscript, and agreed to be accountable for all aspects of the work, thereby ensuring the accuracy, integrity, and scholarly quality of the study.

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