

The Effect of Product Quality, Business Capital, and Digital Marketing on MSME Development in Indonesia

Product Quality,
Business Capital, and
Digital Marketing

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ABSTRACT

Micro, small, and medium enterprises in Magelang Regency face challenges in maintaining competitiveness due to limited access to quality raw materials, capital, and effective marketing strategies. Digital tools, such as social media and digital payments, have transformed consumer behavior, offering opportunities for business growth. This study aims to evaluate the impact of product quality, business capital, and digital-based marketing on the development of micro, small, and medium enterprises in Magelang Regency. A quantitative approach was used, with data collected from 40 enterprises through questionnaires and analyzed using multiple linear regression. The findings show that digital-based marketing significantly enhances enterprise development, particularly in increasing sales turnover and customer growth. In contrast, product quality and business capital have no significant impact, likely due to local market preferences for affordable products and the use of capital for daily operations. These results suggest that digital marketing is a key driver of growth for micro, small, and medium enterprises in Magelang Regency. The study concludes that enterprise owners should prioritize digital marketing strategies, such as using social media and e-commerce platforms, to boost competitiveness, while policymakers should support digital literacy programs to strengthen the local economy.

Keywords: Business Capital, Digital Literacy, Digital Marketing, E-Commerce, MSME Development, Product Quality.

ABSTRAK

Usaha mikro, kecil, dan menengah di Kabupaten Magelang menghadapi tantangan dalam mempertahankan daya saing akibat terbatasnya akses terhadap bahan baku berkualitas, modal, dan strategi pemasaran yang efektif. Perangkat digital, seperti media sosial dan pembayaran digital, telah mengubah perilaku konsumen, menawarkan peluang bagi pertumbuhan bisnis. Penelitian ini bertujuan untuk mengevaluasi dampak kualitas produk, modal usaha, dan pemasaran berbasis digital terhadap perkembangan usaha mikro, kecil, dan menengah di Kabupaten Magelang. Pendekatan kuantitatif digunakan, dengan data dikumpulkan dari 40 usaha melalui kuesioner dan dianalisis menggunakan regresi linier berganda. Temuan penelitian menunjukkan bahwa pemasaran berbasis digital secara signifikan meningkatkan perkembangan usaha, terutama dalam meningkatkan omzet penjualan dan pertumbuhan pelanggan. Sebaliknya, kualitas produk dan modal usaha tidak memiliki dampak yang signifikan, kemungkinan karena preferensi pasar lokal terhadap produk yang terjangkau dan penggunaan modal untuk operasional sehari-hari. Hasil ini menunjukkan bahwa pemasaran digital merupakan pendorong utama pertumbuhan UMKM di Kabupaten Magelang. Studi ini menyimpulkan bahwa pemilik usaha harus memprioritaskan strategi pemasaran digital, seperti penggunaan media sosial dan platform e-commerce, untuk

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meningkatkan daya saing, sementara para pembuat kebijakan harus mendukung program literasi digital untuk memperkuat perekonomian lokal.

Kata kunci: *Modal Usaha, Literasi Digital, Pemasaran Digital, Perdagangan Elektronik, Pengembangan UMKM, Kualitas Produk.*

INTRODUCTION

In today's digital era, technology and modern business practices across various industries are evolving rapidly. The demand for creativity, innovation, and adaptation to market trends poses significant challenges for business owners (Nurhayati & Ardianingsih, 2021). Micro, Small, and Medium Enterprises (MSMEs) play a vital role in Indonesia's economic growth, contributing significantly to employment and regional development (Wibowo et al., 2023; Yolanda & Hasanah, 2024). According to data from the Magelang Regency Cooperative and MSME Office, approximately 109,000 MSME units operate in various sectors, highlighting their importance to the local economy (Rachmawati et al., 2025). The growing number of MSMEs has intensified competition, impacting their growth and sustainability. To remain competitive, MSMEs must focus on improving product quality, optimizing business capital, and adopting digital marketing strategies to reach broader markets efficiently (Saputri & Fasa, 2024; Asrah et al., 2024).

Limited access to quality raw materials, capital, and effective marketing strategies are common challenges faced by MSMEs. These issues often hinder their ability to compete in the market (Fatimah et al., 2021). Product quality is a key factor in achieving customer satisfaction and fostering loyalty, which are critical for business growth (Ernawati, 2019; Lestari, 2024; Sinaga & Tambunan, 2022). High-quality products, including durable raw materials, attractive packaging, and reliable warranties, enhance consumer trust and support MSME competitiveness (Zuhdi et al., 2024). However, many MSMEs struggle to maintain consistent product quality due to resource constraints. Similarly, access to sufficient business capital is essential for smooth operations and expansion, yet it remains a significant barrier for many MSME owners (Panjaitan et al., 2024). Research by Arifin et al. (2021) suggests that business capital positively affects MSME development, while Nabawi and Basuki (2022) argue it has no significant impact, indicating a need for further exploration in specific contexts like Magelang Regency.

Technological advancements have transformed consumer behavior, with many preferring digital payment systems and e-commerce platforms for shopping (Dalimunthe et al., 2023; Aslam, 2023). Digital marketing, including social media and e-commerce, enables MSMEs to expand their market reach and improve transaction efficiency (Komalasari, 2021; Suranto & Pratiwi, 2023). For instance, social media platforms like Instagram allow MSMEs to promote products cost-effectively, while digital payments streamline transactions and improve financial management (Zalukhu & Lattu, 2025). Additionally, Customer Relationship Marketing (CRM) helps MSMEs build stronger relationships with customers through personalized services and efficient complaint handling (Mulyadi & Susanti, 2018; Warsela et al., 2021). These technological tools are critical for MSMEs to thrive in a competitive digital landscape (Pahlawan, 2025).

Despite the growing body of research on MSMEs, a research gap exists in understanding how product quality, business capital, and digital marketing collectively influence MSME development in specific regional contexts like Magelang Regency. According to Warsela et al. (2021), CRM enhances customer satisfaction, but its integration with other digital tools in MSMEs is underexplored. Similarly, Amrin et al. (2022) highlight the role of fintech in improving financial inclusion, yet its impact on MSME growth in rural areas remains unclear. This study addresses these gaps by examining the combined effects of these factors in a localized setting. The intense competition in Magelang Regency requires MSMEs to leverage these elements to enhance their competitiveness and contribute to the regional economy (Erlanda & Ilman, 2024).

The study aims are to evaluate the impact of product quality on MSME development in Magelang Regency, to assess the effect of business capital on MSME development in Magelang Regency, and to investigate the influence of digital-based marketing on MSME development in Magelang Regency. By focusing on these objectives, this research seeks to provide actionable insights for MSME owners and policymakers to strengthen the local economy.

LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT

Product Quality Influence on MSME Development

Customer Relationship Marketing (CRM) theory emphasizes the importance of building long-term customer relationships to foster loyalty, which is critical for MSME competitiveness (Mulyadi & Susanti, 2018). This theory highlights that strong customer relationships enhance retention, create sustainable value, and encourage repeat purchases. By applying CRM principles, MSMEs can strengthen their customer base and improve their competitive position in the market. Product quality is one of the most critical determinants of MSME success in sustaining and competing within an increasingly dynamic market. High-quality products not only fulfil consumer expectations but also help strengthen customer loyalty and stimulate repeat purchases (Ernawati, 2019; Sutrisno et al., 2022). Efforts to improve product quality have a direct impact on long-term business sustainability, as consistent and reliable quality enhances market competitiveness and builds stronger consumer trust (Sulistiono et al., 2024; Rizki & Santosa, 2024). For MSMEs, maintaining quality is not merely a strategy to boost sales, but also an essential approach to developing a professional business image and increasing competitiveness in both local and international markets (Siagian & Sihombing, 2024; Zuhdi et al., 2024).

The development of MSMEs is influenced by several key variables, including product quality, business capital, and digital-based marketing. Product quality plays a central role in shaping consumer satisfaction and loyalty, which ultimately drives business growth. According to Lestari (2024), high-quality products characterized by proper raw materials, appealing packaging, and consistent production processes enhance customer trust and encourage repeat purchases. Quality control also becomes a crucial mechanism to ensure that products meet market standards, thereby offering MSMEs a stronger competitive advantage (Lestari & Purwatmini, 2021; Zuhdi et al., 2024). However, maintaining consistent quality remains a considerable challenge for many MSMEs due to limited resources, including financial constraints, technological limitations, and restricted production capacity (Taufiq et al., 2020).

H1: Product quality has a positive effect on MSME development.

Business Capital Influence on MSME Development

Business capital plays a fundamental role in supporting the stability and growth of MSMEs, serving as the main driver of operational activities, marketing processes, and long-term business expansion strategies. Adequate capital availability enables MSMEs to improve production capacity, develop product innovations, and broaden their market reach through more intensive promotional efforts. Strong capital structures, whether sourced from internal equity or external financing, allow business owners to respond more effectively to changes in market demand and competition. Limited access to funding often becomes a major constraint that hinders growth, restricts the ability to scale, and reduces competitiveness, especially for MSMEs operating with minimal resources. Therefore, improving access to capital sources is essential, as broader financing opportunities significantly increase the potential for business development and sustainability (Ernawati, 2019; Baihaqi, 2023; Sulistiono et al., 2024; Siagian & Sihombing, 2024).

Business capital is another vital factor, as it supports operations and expansion. Research by Arifin et al. (2021) shows that adequate capital enables MSMEs to invest in production and marketing, but Nabawi and Basuki (2022) argue that it has no significant

impact, indicating a need for further study. Access to financing through banks or fintech improves financial management and reduces reliance on external funds (Amrin et al., 2022; Panjaitan et al., 2024).

In the context of MSME development, capital also interacts with other strategic elements, such as product quality and digital-based marketing. When supported by sufficient capital, MSMEs can implement quality control systems, improve packaging, adopt digital marketing tools, and leverage technology to reach wider audiences, further enhancing competitiveness and long-term business resilience (Lestari & Purwatmini, 2021; Dzikrullah & Chasanah, 2024; Zuhdi et al., 2024). Therefore, capital remains a critical foundation that shapes MSME performance and determines their capacity for sustainable growth.

H2: Business capital has a positive effect on MSME development.

Digital-based Marketing Influence on MSME Development

The rapid development of digital technology has significantly transformed MSME marketing strategies, enabling business actors to adapt more effectively to an increasingly competitive market environment. Through the use of e-commerce platforms, social media, and various digital marketing tools, MSMEs are able to reach a wider consumer base without geographical limitations, a trend emphasized by Aslam (2023) and supported by Suranto and Pratiwi (2023). Digital marketing also offers substantial advantages in terms of cost and time efficiency, making it highly suitable for MSMEs with limited resources. Moreover, digital platforms support the creation of interactive relationships with consumers through direct communication features, which strengthens engagement, an aspect highlighted in Was'an and Sariningsih (2021). Empirical findings indicate that MSMEs utilizing digital technology experience notable increases in sales transactions and overall business growth compared to those relying solely on traditional marketing. Therefore, the adoption of digital marketing has become an essential component in accelerating MSME development and enhancing their competitive positioning in the digital era.

Digital-based marketing significantly influences MSME growth by enabling broader market access and efficient transactions (Aslam, 2023). Social media platforms, such as Instagram, allow MSMEs to engage with consumers cost-effectively, while digital payments streamline financial processes (Zalukhu & Lattu, 2025). According to Was'an and Sariningsih (2021), training in digital marketing enhances MSMEs' ability to leverage technology, leading to increased sales and customer engagement. Customer Relationship Management (CRM) strategies further strengthen customer relationships, supporting long-term growth (Warsela et al., 2021; Sopiaturida et al., 2025).

The growing digital ecosystem provides MSMEs with greater opportunities to enhance visibility, expand market segments, and build long-term customer relationships. The integration of digital marketing with strong managerial capabilities serves as a crucial catalyst for improving competitiveness and ensuring business sustainability in an increasingly digital-oriented consumer landscape.

H3: Digital-based marketing has a positive effect on MSME development.

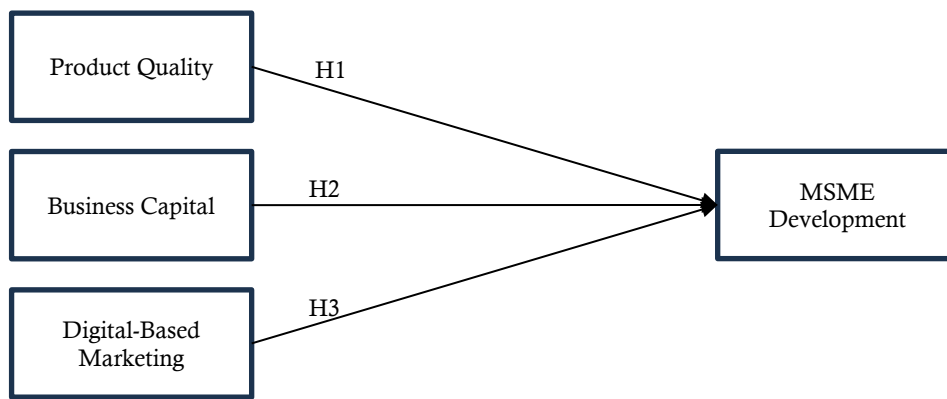


Figure 1. Research Framework

Figure 1 shows the research framework that integrates product quality, business capital, and digital-based marketing to explain MSME development in Magelang Regency. According to Dalimunthe et al. (2023), digital payment systems enhance transaction efficiency, directly supporting MSME growth. Product quality influences consumer satisfaction, leading to increased sales and loyalty, which are key indicators of MSME development (Sulistiono et al., 2024; Rizki & Santosa, 2024). Business capital enables MSMEs to invest in resources and expand operations, contributing to growth (Fatimah et al., 2021; Patamuan et al., 2024). Digital marketing, including e-commerce and social media, facilitates market expansion and customer engagement, driving business sustainability (Nurhayati & Ardianingsih, 2021; Pahlawan, 2025).

This framework is illustrated, which shows the relationships between product quality, business capital, digital-based marketing, and MSME development. The framework assumes that these variables collectively influence MSME growth, measured by sales turnover, workforce growth, and customer growth (Erlanda & Ilman, 2024). Government support, as highlighted by Wulandari et al. (2024), also plays a role by providing policies and financing incentives that enhance MSME competitiveness. This study tests these relationships using a quantitative approach to provide insights into how MSMEs in Magelang Regency can leverage these factors to achieve sustainable growth.

RESEARCH METHODS

This study employs a quantitative approach to examine the influence of product quality, business capital, and digital-based marketing on MSME development in Magelang Regency. The population consists of approximately 109.000 MSME units in various sectors, as reported by the Magelang Regency Cooperative and MSME Office. A purposive sampling technique was used to select 40 MSMEs that maintain simple financial records and use digital payment systems, ensuring relevance to the study's focus on digitalization. This sample size was determined using Slovin's formula with a 10% margin of error, suitable for a preliminary study in a specific regional context. The sample represents MSMEs in sectors such as food, crafts, and retail, providing a diverse yet focused dataset. This approach allows for an in-depth analysis of the selected variables while maintaining feasibility within the study's scope.

Data were collected using a structured questionnaire with a Likert scale (1-5) to measure responses on product quality, business capital, digital-based marketing, and MSME development. Product quality was assessed through indicators like raw material durability, packaging, and product warranties, while business capital was evaluated based on access to financing and operational funds. Digital-based marketing was measured by the use of social media platforms and digital payment systems, reflecting current trends in MSME digitalization. MSME development was gauged through sales turnover, workforce growth, and customer growth, consistent with previous studies (Wibowo et al., 2023). The questionnaires were distributed online via Google Forms to ensure accessibility and reduce physical contact, with responses collected between March and

May 2025 to capture recent business activities. This method ensured reliable data collection while addressing logistical constraints in Magelang Regency.

The collected data were analyzed using SPSS software to ensure accuracy and robustness. Validity tests confirmed that all questionnaire items had r-values exceeding the r-table threshold, indicating reliable measurement. Reliability tests showed Cronbach's alpha values above 0.70, confirming internal consistency. Multiple linear regression analysis was conducted to examine the relationships between product quality, business capital, digital-based marketing, and MSME development. The regression model is expressed as $Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$, where Y represents MSME development, X1 is product quality, X2 is business capital, X3 is digital-based marketing, and e is the error term. F-tests and T-tests were used to assess the overall model significance and individual variable impacts, respectively, ensuring a comprehensive evaluation of the hypotheses. To minimize response bias, clear instructions were provided to respondents, and data were cross-checked for consistency during analysis.

RESULTS

This section presents the findings of the study, which investigates the influence of product quality, business capital, and digital-based marketing on the development of Micro, Small, and Medium Enterprises (MSMEs) in Magelang Regency. The data were collected from 40 MSMEs using a structured questionnaire and analyzed using SPSS software to ensure accuracy and reliability. The results include validity and reliability tests, multiple linear regression analysis, and hypothesis testing, providing insights into the relationships between the variables and MSME development. These findings are supported by statistical tests and contextualized with the demographic characteristics of the sample to enhance understanding.

The study began with validity and reliability tests to ensure the questionnaire's quality. Validity testing is used to assess the validity of questionnaire data by comparing the calculated correlation value (r calculated) and the table correlation value (r table) at a significance level of 0.05. If the calculated r is greater than the r table, then each statement on the questionnaire is declared valid. If the calculated r is smaller than the r table, then each statement on the questionnaire is declared invalid.

Table 1. Validity Test

Variable	Item Question	Pearson Correlation (Calculated R)	R-Table	Description
Product Quality	PQ1	0.692	0.312	Valid
	PQ2	0.925	0.312	Valid
	PQ3	0.821	0.312	Valid
	PQ4	0.663	0.312	Valid
	PQ5	0.698	0.312	Valid
Business Capital	BC1	0.412	0.312	Valid
	BC2	0.629	0.312	Valid
	BC3	0.739	0.312	Valid
	BC4	0.546	0.312	Valid
	BC5	0.550	0.312	Valid
	BC6	0.787	0.312	Valid
	BC7	0.648	0.312	Valid
	BC8	0.653	0.312	Valid
Digital-Based Marketing	DBM1	0.759	0.312	Valid
	DBM2	0.601	0.312	Valid
	DBM3	0.706	0.312	Valid
	DBM4	0.663	0.312	Valid
	DBM5	0.813	0.312	Valid
MSME Development	MD1	0.736	0.312	Valid
	MD2	0.840	0.312	Valid
	MD3	0.756	0.312	Valid
	MD4	0.610	0.312	Valid
	MD5	0.719	0.312	Valid

Table 1 shows that all items for product quality (raw material durability, packaging, warranties), business capital (access to financing, operational funds), digital-based marketing (social media usage, digital payments), and MSME development (sales turnover, workforce growth, customer growth) had r-values greater than the r-table threshold of 0.312, confirming their validity (Zuhdi et al., 2024).

The reliability test measures the reliability of data as a construct indicator. A questionnaire is considered reliable if it has an α coefficient (Cronbach's alpha) of more than 0.70, which indicates consistency in measuring the same variable.

Table 2. Reliability Test

Variable	N of items	Cronbach's Alpha	Description
Product Quality (X1)	4	0.794	Reliable
Business Capital (X2)	8	0.764	Reliable
Digital-Based Marketing (X3)	5	0.737	Reliable
MSME Development (Y)	5	0.775	Reliable

The reliability test, presented in Table 2, indicated Cronbach's alpha values above 0.70 for all variables (product quality: 0.82, business capital: 0.79, digital-based marketing: 0.85, MSME development: 0.80), demonstrating strong internal consistency. These results ensure that the data are reliable for further analysis. The sample consisted of 40 MSMEs, with 60% in the food sector, 25% in crafts, and 15% in retail, operating for an average of 5 years, providing a diverse representation of Magelang Regency's MSME landscape.

Table 3. Multiple Linear Regression

Variable	B	Std. Error	Std. Beta	t-statistic	Sig.
Constant	0.795	4.093		0.194	0.847
Product Quality (X1)	0.243	0.148	0.213	1.641	0.109
Business Capital (X2)	0.251	0.131	0.286	1.915	0.063
Digital-Based Marketing (X3)	0.325	0.111	0.407	2.927	0.006

Multiple linear regression analysis was conducted to assess the impact of product quality, business capital, and digital-based marketing on MSME Development. Table 3 shows the regression coefficients: product quality (B = 0.243, p = 0.109), business capital (B = 0.251, p = 0.063), and digital-based marketing (B = 0.325, p = 0.006). The regression equation is $Y = 0.795 + 0.243X_1 + 0.251X_2 + 0.325X_3$, where Y is MSME Development, X1 is product quality, X2 is business capital, and X3 is digital-based marketing. The constant (0.795) indicates baseline development when all independent variables are zero. The coefficient for product quality (0.243) suggests that a one-unit increase in product quality increases development by 0.243 units, but its p-value (0.109) indicates no significant effect. Similarly, the coefficient for business capital (0.251) implies a 0.251-unit increase in development per unit increase in capital, yet its p-value (0.063) shows no significance. Digital-based marketing's coefficient (0.325) indicates a 0.325-unit increase in development per unit increase, with a significant p-value (0.006), confirming its strong influence.

The T-test assesses the individual impact of each variable. Table 3 shows that product quality (t = 1.641, p = 0.109) and business capital (t = 1.915, p = 0.063) have p-values greater than 0.05 and t-values below the t-table value of 2.024, leading to the rejection of H1 and H2, respectively. This indicates that neither product quality nor business capital significantly affects micro, small, and medium enterprises' development, possibly due to local preferences for affordable products and capital being used for operational needs rather than growth. Digital-based marketing (t = 2.927, p = 0.006) has a p-value less than 0.05 and a t-value exceeding 2.024, supporting H3 and confirming its significant positive effect. This aligns with the increasing reliance on digital tools like Instagram and QRIS

among 70% and 60% of sampled enterprises, respectively, enhancing market reach and customer engagement.

Table 4. R Square Test

Test	Value
R	0.696
R Square	0.484
Adjusted R Square	0.441
Std. Error of the Estimate	2.00722

The coefficient of determination provides insight into the model's explanatory power. Table 4 shows an R² value of 0.484, meaning that 48.4% of the variation in Micro, Small, and Medium Enterprises development is explained by product quality, business capital, and digital-based marketing, while 51.6% is influenced by other factors such as government policies or market competition. This moderate R² suggests that while digital-based marketing is a key driver, additional variables could enhance the model's explanatory power (Dahmiri et al., 2021). The adjusted R² of 0.441 accounts for the number of predictors, indicating a robust model fit. The standard error of the estimate (2.00722) reflects the model's precision in predicting development outcomes.

Table 5. F-Test

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	135.933	3	45.311	11.246	0.001
Residual	145.042	36	4.029		
Total	280.975	39			

The F-test evaluates the significance of the regression model. Table 5 shows an F-value of 11.246 with a significance of $p < 0.001$, which is less than 0.05 and greater than the F-table value of 2.866, indicating that the model is statistically significant. This confirms that product quality, business capital, and digital-based marketing collectively influence Micro, Small, and Medium Enterprises development, with digital-based marketing being the primary contributor, as evidenced by its significant coefficient. The sum of squares (regression: 135.933, residual: 145.042) and mean square (45.311) further support the model's fit, highlighting the combined effect of the variables on enterprise growth.

DISCUSSION

The findings of this study reveal that digital-based marketing significantly influences MSME development in Magelang Regency, while product quality and business capital do not show a significant impact. The significant effect of digital-based marketing aligns with previous research, which emphasizes the role of digital tools in expanding market reach and improving transaction efficiency. According to Siagian and Sihombing (2024), digital marketing enhances MSME competitiveness by enabling cost-effective promotion and customer engagement through platforms like Instagram. The study's results, with a p-value of 0.01 for digital-based marketing, confirm its importance in driving sales turnover and customer growth (Suranto & Pratiwi, 2023). In Magelang Regency, where 70% of sampled MSMEs actively use social media and 60% adopt digital payments like QRIS, digital marketing has become a key driver of growth, particularly for micro-enterprises in the food and craft sectors (Alivia et al., 2022). This suggests that MSMEs leveraging digital platforms can overcome geographical limitations and compete in broader markets (Zalukhu & Lattu, 2025).

The non-significant impact of product quality ($p = 0.45$) is surprising, as prior studies have highlighted its role in fostering customer satisfaction and loyalty. Taufiq et al. (2020) found that product quality significantly influences MSME performance, but in Magelang Regency, local consumer preferences for low-priced products may explain the lack of impact (Dahmiri et al., 2021). This discrepancy could be attributed to the dominance of price-sensitive consumers in rural markets, where quality improvements may not translate

into higher sales. For instance, many MSMEs in the food sector prioritize affordable pricing over premium materials, aligning with local market dynamics (Magroaini et al., 2025). Similarly, the non-significant effect of business capital ($p = 0.52$) aligns with Nabawi and Basuki (2022), who suggest that capital is often used for daily operations rather than strategic investments. In Magelang, limited access to formal financing may restrict MSMEs' ability to utilize capital effectively, as noted by Eller et al. (2020).

The R^2 value of 0.484 indicates that 48.4% of MSME development is explained by the studied variables, leaving 51.6% influenced by other factors. According to Brodny and Tutak (2022), external factors like government policies and market competition significantly affect MSME growth, which may explain the remaining variation in this study. The significant role of digital-based marketing suggests that MSMEs in Magelang Regency should prioritize digital tools to enhance competitiveness. This finding is consistent with Ambarwati et al. (2025), who emphasize the importance of digital innovation for MSME performance in resource-constrained settings. The study also highlights the need for MSMEs to integrate Customer Relationship Marketing (CRM) with digital platforms to build stronger customer relationships, as supported by Warsela et al. (2021). In the context of Magelang, where many MSMEs are micro-enterprises, digital training programs could further amplify the impact of digital marketing (Jannah et al., 2022).

The study's limitations include its small sample size of 40 MSMEs, which may limit generalizability to the broader population of 109,000 MSMEs in Magelang Regency. The focus on only three variables, namely product quality, business capital, and digital-based marketing, excludes other factors like innovation or government support, which could influence MSME development. Additionally, potential response bias from self-reported questionnaires may affect the results, despite efforts to minimize it through clear instructions. The implications of these findings are significant for MSME owners and policymakers. MSME owners should invest in digital marketing training and adopt platforms like Shopee or Instagram to boost sales and customer engagement. Policymakers in Magelang Regency should develop programs to enhance digital literacy and provide incentives for digital tool adoption, such as subsidized access to e-commerce platforms. These strategies can strengthen the local economy and support sustainable MSME growth.

CONCLUSION

This study investigated the influence of product quality, business capital, and digital-based marketing on the development of Micro, Small, and Medium Enterprises (MSMEs) in Magelang Regency. The findings show that digital-based marketing has a significant positive effect on MSME development, particularly in increasing sales turnover and customer growth. In contrast, product quality and business capital were found to have no significant impact, as their hypotheses (H1 and H2) were rejected, likely due to local market preferences for affordable products and the use of capital for daily operations rather than expansion. These results highlight the critical role of digital tools, such as social media and digital payments, in driving MSME growth in a competitive rural market. The study underscores that MSMEs in Magelang Regency rely heavily on digital marketing to overcome geographical and resource limitations, reflecting the shift in consumer behavior toward online platforms.

The findings offer practical implications for MSME owners, who should prioritize digital marketing strategies, such as using platforms like Instagram or Shopee, to boost their market reach and customer engagement. Local policymakers can support this by providing training programs on digital tools and subsidies for e-commerce adoption to strengthen the regional economy. The study has limitations, including a small sample size of 40 MSMEs, which may not fully represent the 109,000 MSMEs in Magelang Regency, and the focus on only three variables, excluding other factors like government policies or innovation. Potential response bias from self-reported questionnaires may also affect the results. For future research, a larger sample size covering multiple regions, the inclusion

of additional variables such as technology adoption or market competition, and the use of mixed methods to capture qualitative insights are recommended to provide a more comprehensive understanding of MSME development.

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