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The Utilization of Digital Marketing, Product Quality, and Green Business Practices in Improving the Performance of Craft SMEs in Pasuruan City

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Abstract

Improving the performance of craft small and medium-sized enterprises (SMEs) requires not only technology-enabled market expansion but also consistent product quality and environmentally responsible business practices. This study examined the associations between digital marketing utilization, product quality, green business practices, and the performance of craft SMEs in Pasuruan City. A quantitative explanatory design was employed. Data were collected using a Likert-scale questionnaire administered to 117 craft SME owners selected through purposive sampling and analyzed using multiple linear regression. The results indicated that digital marketing utilization was not significantly associated with SME performance, whereas product quality and green business practices showed positive and significant associations. Green business practices emerged as the strongest predictor of performance. Collectively, the three variables were significantly associated with SME performance and explained 71.9% of its variance. These findings indicate that adopting digital marketing alone may be insufficient to improve business performance unless it is supported by high-quality products and environmentally sustainable practices. The study

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contributes empirical evidence that craft SME development should prioritize an integrated strategy that strengthens product quality and green business practices while transforming digital marketing from a basic promotional instrument into a strategic organizational capability.

Keywords: Craft SMEs; Digital Marketing; Green Business Practices; Product Quality; SME Performance

INTRODUCTION

The development of digital technology and the growing demand for sustainable business practices have transformed the way small and medium-sized industries (SMEs) operate. In an increasingly competitive environment, SME performance is no longer determined solely by production capacity but also by the ability to reach broader markets, maintain product quality, and respond to environmental demands. Digital marketing has emerged as an important strategy for SMEs to expand market reach and increase product visibility. Bruce et al., (2023) demonstrated that digital marketing adoption can support sustainable SME growth by improving market access and marketing efficiency. Similarly, Sharabati et al., (2024) found that digital marketing strategy contributes to SME performance through digital transformation. Within creative industries, digital capabilities are particularly relevant because creative products require broader promotional reach and continuous interaction with consumers.

However, the adoption of digital marketing among SMEs remains uneven. An initial survey conducted in Pasuruan City found that only 32% of respondents had adopted social media as a marketing channel. In addition to digital adoption, craft SMEs face challenges in maintaining the consistency of natural raw materials and understanding environmentally oriented business practices (Yang et al., 2022). The preliminary findings indicated that 45% of respondents experienced difficulties in maintaining the consistency of natural materials, while 71% had limited understanding of standard operating procedures related to green business practices. These conditions suggest that improving craft SME performance requires an approach that extends beyond marketing and incorporates product quality and business sustainability. Rachmawati et al., (2023) found that digital and green marketing can contribute to SME sustainability, while Kuspriyadi et al., (2023) demonstrated that digital marketing and product quality positively influence SME performance.

Product quality represents another important dimension because craft products are strongly associated with functionality, aesthetics, design uniqueness, and cultural value. Consistent quality can strengthen consumer acceptance while differentiating products from competing alternatives. De Giovanni, (2024) noted that contemporary product quality encompasses broader dimensions, including usability, efficiency, customization, innovation, ethics, and sustainability. In craft SMEs, product quality is also closely related to consumer satisfaction because product characteristics constitute an important consideration in purchasing decisions (Reva et al., 2025). Kuspriyadi et al., (2023) product quality can therefore be understood as an important internal capability that contributes to SME performance, particularly when businesses are able to maintain consistent quality standards while developing distinctive products that provide value to consumers.

At the same time, increasing environmental concerns have encouraged SMEs to incorporate green business practices into their operations. Such practices may include the use of environmentally friendly materials, resource efficiency, waste management, and recyclable or biodegradable packaging (Purbawati et al., 2023). Green practices are not merely concerned with reducing environmental impacts but can also become part of a broader strategy for creating business value and maintaining long-term sustainability. Sumarlin & Nuvriasari, (2024) found that green innovation and environmental awareness contribute positively to SME performance, while Sabihaini et al., (2024) showed that environmental management and sustainability-oriented business strategies can strengthen competitive advantage through product and process innovation.

Previous studies, however, have not produced entirely consistent findings regarding the relationship between these factors and SME performance. Manurung & Ningsi, (2025) found that digital marketing capability and green innovation positively influence SME performance through market orientation. Al Barwari et al.,(2025) likewise demonstrated that innovative marketing, green management, and innovation contribute to SME success and competitiveness. In contrast, reported that digital marketing had a positive but insignificant effect on sustainable business performance in a specific industrial cluster. Fitri & Halik, (2023) also found that digital marketing did not significantly influence business sustainability. These differences suggest that the contribution of digital marketing and green-oriented practices may depend on sectoral characteristics, business conditions, and the surrounding business environment.

Similar variations can be observed in studies concerning green business practices. Purbawati et al., (2023) reported a positive contribution of green practices to SME performance, whereas Hasanudin et al., (2025) found a negative relationship between green business practices and sustainability among retail SMEs. Such differences become particularly relevant in the craft sector, where production activities may involve natural materials, manual processes, and local cultural values. Yusup et al., (2025)emphasized that green practices in creative SMEs can begin with resource efficiency, environmentally friendly local materials, and production waste management. khodijah & murtadho, (2025) further demonstrated that green products and digital marketing are associated with SME performance and competitive advantage. These contextual differences indicate the need to examine such relationships specifically among craft SMEs in Pasuruan City.

Research on digital marketing within creative industries also suggests that its contribution varies according to how digital capabilities are utilized. Found that visual content and micro-influencer strategies can increase customer engagement in craft SMEs (Nata et al., 2026). Zong et al., (2025) demonstrated that digital marketing capability can support value-chain innovation and international market achievement among creative-industry SMEs. Further indicated that digital marketing can contribute to competitive advantage through customer relationship management. Thi et al., (2025)similarly reported positive relationships between digital marketing, brand awareness, marketing performance, and business sustainability. Nevertheless, these studies provide limited explanation of how digital marketing operates together with product quality and green business practices in shaping craft SME performance within a specific local context.

This study therefore places these three dimensions within the Resource-Based View (RBV) perspective. Barney, (1991) argued that sustainable competitive advantage can arise from internal resources that are valuable, rare, difficult to imitate, and non-substitutable. From this perspective, digital marketing capability can be regarded as an intangible resource supporting market expansion, product quality as a valuable organizational resource reflecting the firm's ability to create customer value, and green business practice as a strategic capability supporting long-term sustainability. This perspective provides a basis for understanding SME performance as the outcome of the interaction among internally developed resources and capabilities rather than as the consequence of a single business factor.

Based on these considerations, this study focuses on craft SMEs in Pasuruan City by examining the effects of digital marketing utilization, product quality, and green business practices on SME performance, both individually and simultaneously. The selected context is relevant because craft SMEs possess distinctive product characteristics, material requirements, and local cultural values that differentiate them from other business sectors. Bringing the three variables together in a single analytical framework is expected to provide a more comprehensive understanding of the factors associated with craft SME performance while supporting the development of SMEs that are more adaptive to digitalization and sustainability.

METHODS

This study employed a quantitative approach using an explanatory research design. The quantitative approach was selected because the study sought to empirically measure the effects of independent variables on a dependent variable through structured data collection and statistical analysis. The explanatory design was applied to examine the causal relationships between digital marketing utilization (X_1), product quality (X_2), and green business practice (X_3) and the performance of craft SMEs (Y), both individually and simultaneously. The study was conducted in Pasuruan City, East Java, with primary data collected from March to April 2026, covering approximately two months of field data collection.

The research design consisted of four main variables: digital marketing utilization, product quality, green business practice, and craft SME performance. Digital marketing utilization was measured using six indicators covering the regular creation of social media content, the use of paid advertising, collaboration with influencers, customer-data utilization, online product discoverability, and the use of multiple digital platforms. Product quality was assessed through six indicators, namely product performance, appearance, reliability, conformity to promised standards, responsiveness to customer complaints, and perceived product quality. Green business practice was measured through indicators related to pollution reduction, efficient resource utilization, and the use of natural and environmentally friendly raw materials. Craft SME performance was assessed through three indicators:

production-process efficiency, sales growth, and profitability. Overall, the measurement framework comprised 21 indicators across the four study variables.

The study population consisted of craft SMEs in Pasuruan City registered with the local Department of Cooperatives, SMEs, Industry, and Trade (Diskopukmindag). Due to limitations in access, time, and research resources, the accessible population was restricted to craft SMEs affiliated with craft-center communities supported by Diskopukmindag and actively engaged in digital marketing, resulting in 165 accessible SMEs. Participants were selected through purposive sampling based on four criteria: operating in the craft sector, having operated for at least two years, having adopted digital media, and being willing to participate (Farida et al., 2022). Using the Slovin formula with a 5% margin of error, a minimum sample of 117 respondents was obtained. Of the 150 questionnaires distributed, 117 completed questionnaires met the criteria and were included in the analysis, yielding a 78% response rate.

Data were collected using a structured questionnaire employing a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) (Taufique et al., 2026). The questionnaire consisted of an introductory section, respondent characteristics, and measurement items covering all four study variables. Data collection was conducted through both offline and online procedures. The offline process involved visits to craft centers in Pasuruan City, whereas the online questionnaire was distributed through Google Forms via the local craft SME WhatsApp community and the official social media channels of Diskopukmindag. Online respondents were subsequently contacted by telephone or WhatsApp to verify their eligibility and prevent duplicate or inattentive responses.

Before the main survey, the instrument underwent expert judgment by the academic supervisor and a pilot study involving 30 craft SME respondents outside the final sample. Content and item validity were examined using the Pearson Product Moment correlation. All questionnaire items were considered valid because their calculated *r* values exceeded the critical value of 0.1816 at the 5% significance level. Reliability was assessed using Cronbach's Alpha, producing coefficients of 0.667 for digital marketing, 0.705 for product quality, 0.810 for green business practice, and 0.654 for SME performance, indicating that all variables met the study's reliability criteria.

The collected data were analyzed using IBM SPSS Statistics version 26. Descriptive statistical analysis was first conducted to summarize respondent characteristics and response

distributions. Subsequently, multiple linear regression analysis was employed to examine the effects of digital marketing utilization, product quality, and green business practice on craft SME performance, both individually and simultaneously, in accordance with the objectives and hypotheses of the study.

RESULTS

Normality Test

The normality test was conducted using the One-Sample Kolmogorov-Smirnov test on the unstandardized residuals. The test yielded a statistic of 0.103 with an Asymp. Sig. (2-tailed) value of 0.004. Although the significance value was below 0.05, the normality assumption was considered satisfied based on the Central Limit Theorem (CLT), given the sample size of 117 (>30). Therefore, the regression model was considered suitable for further analysis.

Multicollinearity Test

Table 1. Multicollinearity Test Results

Variable	Tolerance	VIF
Digital Marketing (X1)	0.257	3.889
Product Quality (X2)	0.156	6.405
Green Business Practice (X3)	0.146	6.865

source: Compiled by the researcher (2026)

Table 1. Multicollinearity Test Results shows that Digital Marketing (X1), Product Quality (X2), and Green Business Practice (X3) have Tolerance values of 0.257, 0.156, and 0.146, respectively, with VIF values of 3.889, 6.405, and 6.865. Since all Tolerance values are >0.10 and VIF values are <10, the regression model does not exhibit multicollinearity.

Heteroscedasticity Test

The Glejser test shows significance values of 0.685, 0.945, and 0.576 for Digital Marketing, Product Quality, and Green Business Practice, respectively. Since all values are >0.05, the regression model does not exhibit heteroscedasticity.

Multiple Linear Regression Analysis and Hypothesis Testing

The multiple linear regression analysis produced the following equation: $Y = 0.013 + 0.009X_1 + 0.200X_2 + 0.195X_3$.

Table 2. Multiple Linear Regression and Partial t-Test Results

Variable	Coefficient (B)	Std. Error	t-value	Sig.	Interpretation
(Constant)	0.013	0.772	0.017	0.986	–
Digital Marketing (X1)	0.009	0.053	0.179	0.858	Not Significant
Product Quality (X2)	0.200	0.074	2.702	0.008	Significant
Green Business Practice (X3)	0.195	0.048	4.027	0.000	Significant

source: Compiled by the researcher (2026)

Table 2. Multiple Linear Regression and Partial t-Test Results shows that Digital Marketing (X1) has a positive but insignificant effect on IKM performance ($t = 0.179$; $p = 0.858$). In contrast, Product Quality (X2) has a positive and significant effect ($t = 2.702$; $p = 0.008$), while Green Business Practice (X3) has a positive and significant effect ($t = 4.027$; $p < 0.001$). Thus, H1 is rejected, while H2 and H3 are accepted.

Simultaneous Test and Coefficient of Determination

Table 3. Simultaneous F-Test and Coefficient of Determination Results

Test	Value	Sig.	Interpretation
F-value	99.987	0.000	Significant
R	0.852	–	Very Strong Relationship
R Square	0.726	–	72.6%
Adjusted R Square	0.719	–	71.9%

source: Compiled by the researcher (2026)

Table 3. Simultaneous F-Test and Coefficient of Determination Results shows that the regression model is significant, with an F-value of 99.987 and a significance value of <0.001. Therefore, H4 is accepted, indicating that Digital Marketing, Product Quality, and Green Business Practice simultaneously have a significant effect on IKM performance. The Adjusted R Square value of 0.719 indicates that 71.9% of the variation in IKM performance is explained by the three independent variables, while the remaining 28.1% is explained by other factors outside the model.

DISCUSSION

The findings indicate that digital marketing utilization does not have a statistically significant effect on the performance of craft SMEs in Pasuruan City. The first hypothesis was therefore rejected, as reflected by a *t*-value of 0.179 and a significance level of 0.858. This result suggests that merely maintaining a presence on social media, marketplaces, or other digital platforms does not automatically translate into higher production efficiency, sales growth, or profitability. A similar finding was reported by (Kasmad et al., 2024), who found that digital marketing did not have a significant effect on MSME performance, suggesting that digital adoption alone may be insufficient to generate measurable business outcomes.. In this study, digital marketing was operationalized through the consistency of social media content creation, paid advertising, influencer collaboration, customer-data utilization, online product discoverability, and the use of multiple digital platforms. The finding therefore points to a distinction between digital presence and digital capability: the former may increase visibility, whereas the latter is required to generate measurable business outcomes. This distinction is consistent with (Wu et al., 2024), Practices involving natural raw materials who demonstrated that digital marketing strategy and SME performance are closely associated with organizational capabilities, including innovativeness, proactiveness, agility, and managerial capabilities.

The descriptive results provide an important explanation for this relationship. Strategic digital functions, particularly paid advertising and customer-data utilization, remained relatively limited, suggesting that digital platforms were predominantly used as channels for displaying products rather than as analytical and strategic marketing tools. Under the Resource-Based View (RBV), technology adoption alone does not constitute a sustainable competitive resource unless it is transformed into a valuable and difficult-to-imitate organizational capability. The result is consistent with Fitri & Halik, (2023), who reported an insignificant effect of digital marketing on business sustainability, but differs from Bruce et al., (2023) and Sharabati et al., (2024)who identified positive contributions of digital marketing to SME growth and performance. These contrasting findings suggest that the performance consequences of digital marketing depend not simply on whether technology is adopted, but on the sophistication, consistency, and strategic integration of its use within the business.

Product quality produced a substantially different result. The variable had a positive and significant effect on craft SME performance, with a *t*-value of 2.702, a significance level of 0.008, and a regression coefficient of 0.200. This indicates that improvements in product functionality, appearance, consistency, conformity to standards, service, and perceived quality are associated with stronger business performance. The descriptive findings further reveal that product functionality recorded the highest mean score at 3.27, followed by product design and appearance at 3.24. The result is particularly meaningful in the craft sector because consumers evaluate craft products not only according to their practical utility but also according to their aesthetic appeal, uniqueness, and cultural significance.

The significance of product quality can be interpreted through the RBV perspective because quality is embedded in internal knowledge, craftsmanship, production experience, design capability, and the ability to maintain material standards. These resources are more difficult for competitors to imitate than routine promotional activities. The finding confirms Kuspriyadi et al., (2023), who identified product quality as an important determinant of SME performance, who emphasized the relationship between quality and customer satisfaction. Who demonstrated that consistent quality and design innovation contribute to the resilience of craft products against competition from manufactured goods. Thus, product quality functions not merely as a technical attribute but as a mechanism connecting internal production capabilities with market responses.

The strongest result was obtained for green business practice. The variable had a positive and significant effect on SME performance, with a *t*-value of 4.027 and a significance level of 0.000, while its standardized beta coefficient of 0.519 was the highest among the independent variables. This indicates that green business practice constitutes the most influential predictor within the model. Practices involving natural raw materials, awareness of production waste, pollution reduction, and resource efficiency are particularly relevant to craft SMEs because their production processes are closely connected to natural materials. This is supported by Wayan Rustiarini et al., (2022), who examined SMEs in Indonesia's wood craft industry and found that green innovation can contribute to sustainability and financial performance, highlighting the economic relevance of environmentally oriented practices in craft-based businesses. In this setting, environmental practices may therefore function simultaneously as operational practices and as elements of product identity.

This finding supports Purbawati et al., (2023), Sumarlin & Nuvriasari, (2024), and Sabihaini et al., (2024), whose studies generally reported positive relationships between green practices or environmental orientation and SME performance. At the same time, the result differs from Hasanudin et al., (2025), who reported a negative effect of green business practice on sustainability among retail SMEs. The difference can reasonably be interpreted through sectoral characteristics. In retail businesses, environmentally friendly practices may be perceived primarily as additional operating costs, whereas among Pasuruan craft SMEs, natural materials and environmentally responsible production can constitute part of the product's value proposition. This reinforces the argument that the effectiveness of green business practice is highly context-dependent and is influenced by how closely environmental practices align with the identity and value creation mechanism of a particular business sector.

The simultaneous test provides an important perspective on the overall model. Digital marketing, product quality, and green business practice jointly exert a significant effect on craft SME performance, as indicated by an *F*-value of 99.987 and a significance level of 0.000. The model's *Adjusted* R^2 of 0.719 indicates that 71.9% of the variance in SME performance is explained collectively by the three predictors, while the remaining 28.1% is attributable to factors outside the model. This result is theoretically important because the insignificant partial effect of digital marketing should not be interpreted as evidence that digital capabilities are irrelevant. Rather, digital marketing appears to operate more effectively as a supporting mechanism through which product quality and sustainability-related value can be communicated to the market.

Theoretically, the findings extend the application of RBV to the craft SME context by demonstrating that organizational resources and capabilities may generate stronger outcomes when they function as an integrated system. Product quality represents a valuable internal resource grounded in production capabilities, green business practice represents a strategic capability closely connected to local characteristics, and digital marketing provides a channel through which these internal strengths can be communicated to consumers. The principal contribution of the study lies in examining these three dimensions simultaneously within Pasuruan's craft SME sector, characterized by aesthetic value, craftsmanship, natural materials, and local cultural knowledge.

From a practical perspective, the findings imply that SME development programs should move beyond basic social-media training. Digital capacity-building should emphasize

strategic functions such as paid advertising, customer analytics, and storytelling content that communicates production processes and cultural values. At the same time, SMEs need to maintain product consistency through quality standards, material control, design development, and responsive customer service. Green practices should likewise be positioned as part of the product's value proposition rather than treated solely as environmental compliance. Such an integrated approach is particularly relevant to local government initiatives, including the "Pasuruan Hijau dan Digital" program, which seeks to support digitally adaptive and environmentally responsible SMEs.

Several limitations should nevertheless be considered when interpreting these findings. First, the study involved 117 craft SMEs in Pasuruan City, meaning that generalization to other SME sectors or geographical settings should be undertaken cautiously. Second, the use of questionnaire-based measures means that the findings rely partly on respondents' perceptions of their business practices and performance. Third, although the model explains a substantial 71.9% of performance variance, 28.1% remains attributable to factors not included in the analytical framework. The thesis identifies potential factors such as access to capital, macroeconomic conditions, government policy, and entrepreneurial orientation. Future research may therefore extend the model across different regions and SME sectors, employ qualitative approaches to explain the mechanisms underlying the quantitative findings, and incorporate additional variables or alternative analytical designs.

CONCLUSION

This study examined the effects of digital marketing utilization, product quality, and green business practice on the performance of craft SMEs in Pasuruan City, both individually and collectively. Based on data from 117 craft SME respondents, digital marketing utilization was found to have no significant partial effect on SME performance. This finding indicates that merely establishing a presence on digital platforms does not necessarily translate into improved business outcomes when digital tools are primarily used for basic promotional activities. In contrast, product quality demonstrated a positive and significant effect on SME performance, highlighting the importance of maintaining product functionality, design, consistency, and overall quality as fundamental drivers of business performance. Green business practice also exerted a positive and significant effect and emerged as the most

dominant factor in the proposed model. When considered jointly, digital marketing, product quality, and green business practice had a positive and significant effect on craft SME performance, with the model explaining 71.9% of the variation in performance.

These findings address the research objectives by demonstrating that craft SME performance is not determined solely by technological adoption, but is more strongly associated with the strength of product quality and environmentally responsible business practices that correspond to the local characteristics of the craft sector. Theoretically, the study contributes to the application of the Resource-Based View by emphasizing the role of valuable and difficult-to-imitate internal resources and capabilities in explaining SME performance. Practically, the findings support an integrated development strategy in which product quality and authentic green practices serve as the foundation of competitiveness, while digital marketing functions as a complementary mechanism for communicating these strengths to the market.

The findings imply that craft SMEs should strengthen product consistency and quality, maintain environmentally responsible production practices, and advance their digital capabilities from basic product promotion toward more strategic uses of analytics and content development. Local government support should focus on sustained digital capacity building and practical facilitation of green business implementation. Future studies should expand the research to other regions and SME sectors, incorporate qualitative or mixed-method approaches to explain the mechanisms underlying the quantitative findings, and examine additional factors such as entrepreneurial orientation, innovation, access to capital, and government support.

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