

Digital Marketing Governance for Enhancing MSME Sales Performance in Malang, Indonesia

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Abstract

The Melati MSME Association in Malang faces challenges with manual marketing governance, leading to data inaccuracy, weak coordination, and potential income manipulation. This study aims to develop a digital-based marketing governance application to enhance transparency, accountability, and sales. The method used is Research and Development (R&D) with a Prototyping approach, involving 15 MSME members and 3 administrators. System testing includes Black Box Testing, System Usability Scale (SUS) questionnaires, and before-after comparative analysis. The results show that the Melati Digital application was successfully implemented with 100% of main features functioning. Technology adoption reached 86.6%, with an SUS score of 82.4 (Excellent category). Comparative analysis proves the data error rate dropped drastically from $\pm 15\text{-}20\%$ to $<2\%$, and reporting efficiency increased by 90%. It is concluded that integrating technology into marketing governance effectively prevents moral hazard, strengthens good governance principles, and sustainably improves MSME sales performance transparently.

Keywords: Marketing Governance, MSME Digitalization, Good Governance, Sales Performance, Community Empowerment

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in driving local economies and absorbing labor in Indonesia. According to the Ministry of Cooperatives and SMEs (2023), the MSME sector contributes more than 60% to Indonesia's Gross Domestic Product (GDP) and absorbs approximately 97% of the national workforce. This significant contribution is further supported by the findings of (Febrianti, 2025), who emphasize that MSMEs serve as the primary absorber of labor across various regions in Indonesia, particularly for communities with limited formal education. Furthermore, (N. P. W. Rahayu et al., 2025) highlights that MSMEs play a vital role in local economic empowerment by producing goods and services based on local potential, creating dynamic business climates, and opening new markets.

Despite various government facilitation programs, a major obstacle in implementing these programs is the lack of accurate and accountable business performance data, particularly monthly sales data used to assess assistance eligibility. Previous interventions focusing solely on digital recording applications have failed to address the root cause of data manipulation. In earlier research conducted by the team at the Melati MSME Association, it was found that some members falsified income data to meet administrative requirements for assistance. This phenomenon indicates a fundamental gap between digital innovation adoption and MSME governance readiness. When revenue is the sole performance indicator without structured marketing governance, digital systems are prone to misuse. This aligns with findings by (Bismala, 2017), who noted that many MSMEs still operate with simple and unstructured management, particularly in financial recording, stock management, and performance monitoring.

Empirical studies show that digital marketing strategies can improve MSME sales, but their effectiveness heavily depends on structured product marketing governance. Research by

(Lestari et al., 2023) shows that applying digital-based marketing information systems to MSMEs can expand marketing reach and improve business performance, especially when the system is used collectively and in a coordinated manner. Similarly, (Putra et al., 2024) emphasize that marketing governance covering aspects of branding, coordination, mentoring, business legality, and digital-based monitoring contributes significantly to increasing consumer trust and MSME sales. In line with these findings, (Chintiya et al., 2023) demonstrate that online marketing information systems help manage product catalogs, expand markets, and enhance the competitiveness of MSMEs. (Lestari et al., 2023) also confirm that web-based digital marketing integration facilitates product promotion and increases MSME exposure to consumers.

However, other empirical studies reveal that implementing digital marketing without clear strategies and control mechanisms potentially leads to performance inconsistency, unhealthy internal competition, and low sales data accountability. (Sabrina, 2021) found that although most MSMEs have implemented business governance, the aspects of transparency and independence remain weak and require system strengthening. Similarly, (Iqbal et al., n.d.) emphasize that the application of transparency, accountability, and responsibility principles has a positive impact on MSME performance and sustainability. Therefore, developing a digital application that functions not only as a marketing medium but also as an integrated marketing governance instrument is crucial for MSME associations.

The digitalization trend has become one of the main trends changing how MSMEs operate, interact with customers, and compete in the market (Azaro et al., 2025). With increasing technology adoption across various sectors, MSMEs no longer view digitalization as an option but as a necessity to survive in an increasingly competitive era. This trend includes various aspects, from adopting technology tools such as management software to using digital platforms for marketing and sales (Ningsih et al., 2023). (Bismala, 2017) also argue that management information systems support the quality of management before management control systems can be implemented effectively.

To address the specific complexities of community-based MSMEs, recent studies have highlighted critical gaps and solutions relevant to this research. First, research by (R. Rahayu & Day, 2015) demonstrates that the adoption of e-commerce and digital marketing by Indonesian SMEs is heavily influenced by collective support and structured coordination, rather than isolated individual efforts. Second, studies on information systems in MSMEs emphasize that digital tools must be coupled with strong governance mechanisms; for instance, (Kautsar & Muslichah, 2022) found that the quality of information systems significantly improves MSME performance only when moderated by good corporate governance principles, which mitigate risks like data manipulation. Third, (Jurnalita, 2024) highlight that digital transformation in Indonesian MSMEs yields the highest performance impact when it integrates centralized management oversight with decentralized operational execution. These empirical findings strongly justify the development of a comprehensive digital governance instrument, such as the 'One-Stop' model proposed in this study, to bridge the gap between technological adoption and administrative readiness in MSME associations.

The Melati MSME Association in Malang was selected as the research locus due to its diverse product potential and active collective marketing, yet it lacks structured and digitally integrated marketing governance. This condition impacts sales fluctuations, inconsistent marketing strategies, and suboptimal utilization of sales data for business decisions. The association, established on October 10, 2020, in Bareng Village, Klojen District, Malang City, has 15 MSME members predominantly engaged in the food and beverage sector.

This study aims to design and evaluate a digital-based application that supports product marketing governance within an association framework to enhance transparency, accountability, and sales performance. By implementing a "One-Stop" centralized marketing mechanism with

decentralized production execution, this research addresses the limitations of previous studies by integrating IT engineering with public administration and community empowerment theories.

RESEARCH METHODS

This study employs a Research and Development (R&D) method with a Prototyping approach to accommodate the varying digital literacy of MSME actors and ensure continuous user feedback (Febrianti, 2025; Hariyati et al., 2022). The research was conducted at the Melati MSME Association in Bareng Village, Malang City, from March to October 2026. The subjects of the study were 15 registered MSME members and 3 association administrators.

The development process followed seven systematic stages: initial requirements gathering, prototyping, customer evaluation, coding, system testing, system evaluation, and final deployment. The application, named Melati Digital, was built using a Client-Server architecture with Laravel 10 (PHP) and MySQL. Data collection techniques included observation, structured interviews, and questionnaires. The instruments used for evaluation were Black Box Testing for functional verification, the System Usability Scale (SUS) questionnaire developed by ("SUS: A 'Quick and Dirty' Usability Scale," 2020) to measure user perception, and a before-after comparative analysis to evaluate the transformation of marketing governance. Data analysis was conducted using descriptive quantitative methods for usability and adoption rates, and comparative analysis for governance efficiency.

RESULTS AND DISCUSSION

The implementation of the Melati Digital application successfully transformed the manual, decentralized marketing process into a structured digital governance system. The development process involved three critical prototyping iterations to ensure user-centric design. Iteration 1 simplified the data input forms based on initial member feedback. Iteration 2 integrated WhatsApp API notifications and Progressive Web App (PWA) installation to improve real-time communication. Iteration 3 focused on mobile responsiveness optimization, ensuring seamless access across various smartphone devices.

Functionality testing using Black Box Testing was conducted on 23 main use cases. The results, detailed in Table 1, indicate that the system is entirely free from critical bugs and logically sound.

Table 1. Black Box Testing Results

Module / Feature	Test Cases	Passed	Failed	Success Rate
User Onboarding & Verification	5	5	0	100%
Product Management & Curation	6	6	0	100%
Transaction & QRIS Payment	6	6	0	100%
Order Execution & Delivery	3	3	0	100%
Reporting & Dashboard	3	3	0	100%
Total	23	23	0	100%

Source: System Testing Results (2026)

To measure user perception, the System Usability Scale (SUS) evaluation was administered to 18 respondents. The results, presented in Table 2, yielded an average score of 82.4, falling into the "Excellent" category. This high score confirms that the mobile-first interface successfully bridged the digital literacy gap among grassroots MSME actors.

Table 2. System Usability Scale (SUS) Scores

Respondent Group	Average SUS Score (0-100)	Adjective Category
MSME Members (15 users)	81.8	Excellent
Association Admins (3 users)	85.4	Excellent
Overall Average	82.4	Excellent

Source: SUS Questionnaire Results (2026)

In terms of technology adoption, 13 out of 15 members (86.6%) successfully migrated to independent daily digital data input, surpassing the 80% target. Furthermore, the comparative before-after analysis revealed dramatic improvements across multiple governance dimensions, as detailed in Table 3.

Table 3. Before-After Governance Comparison

Governance Aspect	Before (Manual System)	After (Melati Digital)	Improvement Impact
Data Error Rate	15% - 20%	< 2%	90% reduction in human error
Report Generation Time	3 - 5 days	Real-time (< 1 minute)	99% time efficiency
Data Transparency	Low (individual claims)	High (verified transactions)	Eliminated data manipulation
Coordination Efficiency	Manual WhatsApp chat	Automated system notifications	Instant order distribution
Payment Validation	Manual receipt checking	Automated QRIS integration	Instant and accurate validation

Source: Comparative Analysis (2026)

Discussion

The core contribution of this system lies in its structural design, which balances centralized coordination with decentralized execution. As illustrated in Figure 1, the "One-Stop" marketing model centralizes promotional activities, product curation, and payment validation under the association's admin to ensure collective branding and financial control. Meanwhile, the production, packaging, and fulfillment remain decentralized to individual members, preserving their business autonomy and entrepreneurial spirit.

A Localized Business for Micro, SML & BMUM (UMKM)

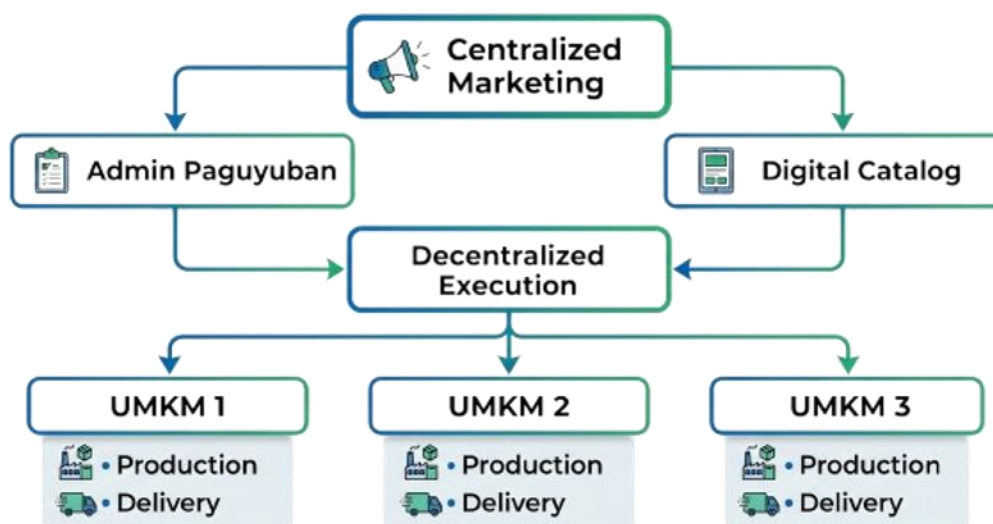


Figure 1. One-Stop Marketing Governance Model (Note: Insert the One-Stop Marketing Governance Model diagram here, showing Centralized Marketing at the top flowing down to Decentralized Execution at the bottom). Source: Research Data Processed (2026)

This architectural separation directly addresses the administrative vulnerabilities identified in the introduction. From the perspective of Agency Theory, the system effectively prevents moral hazard. By binding every sales claim to a digital transaction trail (QRIS payment) validated by the admin, the system creates an objective audit trail. Data is no longer based on subjective claims but on verifiable administrative facts. This finding supports (Iqbal et al., n.d.) who emphasized that the application of transparency, accountability, and responsibility principles has a positive impact on MSME performance and sustainability. It also aligns with the findings of (Margarita Ekadjaja, 2020), who argue that governance mechanisms significantly influence corporate performance, especially under high market competition conditions.

The impact of this structural shift on the association's administrative performance is profound. As shown in Table 1, the integration of IT infrastructure fundamentally strengthens the principles of Good Governance within the community organization. The drastic reduction in data error rates and the elimination of manual report recapitulation allow the association administrators to shift their roles from mere "data entry operators" to "strategic analysts." This transformation corroborates the findings of (Kartini et al., 2024), who noted that e-commerce implementation increases MSME sales and market reach, although digital literacy constraints remain a challenge.

Furthermore, the application strengthens Collaborative Governance at the community level. The centralized catalog and payment validation act as a public good provided by the association, enhancing collective branding and market power. Meanwhile, the decentralized production execution maintains the entrepreneurial spirit of the members. This synergy proves that good governance in MSME associations does not require strict centralization, but rather a coordinated yet decentralized execution model supported by robust IT infrastructure (Sabrina, 2021). The findings also support (Hamdat et al., 2024; Safitri et al., 2026), who argue that information systems play a crucial role in management decision-making by providing accurate and timely data.

The role of the academic institution as a change agent through iterative prototyping was also crucial in facilitating this knowledge transfer and capacity building. The three iterations conducted during the development phase ensured that the system evolved based on direct user

feedback. This iterative approach aligns with the principles of participatory action research, ensuring that the developed system truly meets the needs of the community (Haryati, 2025; Nurhidayah et al., 2025).

The implementation of Good Governance principles through the Melati Digital application is evident in five key aspects: Transparency through real-time dashboard access; Accountability via QRIS payment validation combined with audit trails; Responsiveness enabled by automated WhatsApp notifications with a response time of less than 2 hours; Efficiency through automated report generation saving 99% of administrative time; and Participation demonstrated by the 86.6% active daily input rate. These findings corroborate (Artati, 2023) argument that although MSMEs currently face challenges in meeting good governance requirements, with proper support and technology, they can achieve sustainable business practices.

CONCLUSION

This study successfully developed and implemented a digital-based marketing governance application that effectively enhances transparency, accountability, and sales performance for the Melati MSME Association. The integration of technology into the marketing workflow not only improves operational efficiency and data accuracy but also fundamentally strengthens the governance structure by preventing data manipulation and fostering collaborative governance. The high adoption rate and excellent usability scores demonstrate that appropriately designed digital tools can successfully empower grassroots MSMEs despite varying levels of digital literacy. Ultimately, this research provides a replicable model for community empowerment and development administration, proving that digital transformation in MSMEs must be approached as a strategic governance intervention rather than merely a technical IT project.

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