Beyond the Consumer Lens: Mapping Firm-Side Digital Marketing Studies in Indonesian MSMEs

Ricardo Gianluigi Tindi[1*]
Department of Management
Sam Ratulangi University,
Manado, Indonesia
ricardotindi@unsrat.ac.id

Daniel Peterson Silaban[2*]
Department of Management
Sam Ratulangi University,
Manado, Indonesia
dsilaban@unsrat.ac.id

ABSTRACT

This study systematically reviews recent research on how Indonesian micro, small, and medium enterprises (MSMEs) adopt and use digital marketing in response to rapid digital transformation following the COVID-19 pandemic. Although digital marketing has emerged as a key driver for market visibility and customer engagement, many MSMEs still face challenges in integrating digital initiatives into strategic business processes. Using a dual-corpus design that combines Scopus-indexed and SINTA-indexed articles published between 2020 and 2025, this study maps how firm-side digital marketing research has developed in Indonesia, focusing on thematic patterns, methodological approaches, theoretical perspectives, and analytical levels. The findings indicate that existing research is concentrated on technology adoption and platform-based usage, while studies on capability development, system integration, and ecosystem support remain limited. Emerging topics include sustainability, digital innovation, and artificial intelligence, but these areas require deeper empirical grounding. This review highlights the need for multi-level research that connects individual behavior, organizational capabilities, and institutional environments to support long-term digital transformation among Indonesian MSMEs.

Keywords: Digital Marketing; Micro, Small, and Medium Enterprises (MSMEs) Indonesia; Systematic Literature Review; Digital Transformation

*Corresponding Author: ricardotindi@unsrat.ac.id

INTRODUCTION

In Indonesia, where MSMEs account for about 99% of the businesses with the majority being small and micro (BPS, 2023; Kadin Indonesia, 2023), digital adoption accelerated after COVID-19 (Kurniawati *et al.*, 2021). However, at the same time, there are digitalization adoption constraints being faced by Indonesian MSMEs, particularly limited digital literacy of leaders and owners (Smeru Institute, 2022; Said & Soi, 2025). As a result, many MSMEs struggle to comprehend how to embed DM deep into their strategy, instead using it as a surface-level activity (e.g., promoting and advertising products). In similar vein, firms' digital adoptions are uneven in Indonesian scope, where MSMEs still lie at the lower end of the digital readiness spectrum (Purnomo *et al.*, 2021). These conditions highlight the need to systematically examine how Indonesian scholars have studied DM from the firm side, especially in light of external environmental pressures, uncertainty and resource constraints in implementing DM.

Compared with global research, Indonesian DM studies remain less mature. International scholars have increasingly examined advanced technologies and broader strategic aspects of DM (Guru *et al.*, 2023; Alves *et al.*, 2025), while Indonesian studies continue to be dominated by consumer-facing perspectives such as attitudes, intentions, and purchase behavior. This contrast reveals a clear developmental gap and underscores the need for a comprehensive synthesis that focuses on firm-side DM among Indonesian MSMEs. To address this issue, this study adopts a Systematic Literature Review (SLR) approach to map how DM has been conceptualized, operationalized, and empirically examined within the Indonesian MSME context.

This review sets itself apart from earlier works on similar topics. While earlier literature reviews on MSMEs' DM in Indonesia mainly addressed the consumer-side view (e.g., Watajdid *et al.*, 2021; Rahmadhan *et al.*, 2023), this study focuses on the firm-side of DM with a dual-corpus strategy that complement theoretical breadth with that Indonesian contextual depth. Furthermore, to examine how different studies approach DM at various analytical layers, this research adopts a micro–meso–macro (MMM) framework. This structure makes it possible to see which levels of analysis receive the most attention and which remain relatively overlooked, offering a more balanced view of how DM is understood within Indonesian MSMEs. Taken together, this approach provides a more comprehensive understanding of how Indonesian MSMEs are studied within DM discourse.

Building on this discussion, the review develops two guiding research questions to frame the analysis. The first question asks how firm-side DM research on Indonesian MSMEs has evolved between 2020 and 2025, particularly in terms of the digital tools studied, the key constructs and variables used, the methodological approaches applied, the theoretical lenses adopted, and the levels of analysis employed. This question helps trace the development of the literature and shows how scholarly attention has shifted during a period of rapid digital transformation in the MSMEs sector. The second question focuses on which tools, constructs, methodological choices, theoretical orientations, and analytical perspectives currently dominate firm-side digital marketing research on Indonesian MSMEs, and what gaps remain for future work. This question is important for identifying recurring patterns in the evidence base and for pointing out areas that need deeper exploration, including capability development, integration of DM with other business processes, and multi-level analytical approaches.

LITERATURE REVIEW

Digital transformation (DT) refers to the fundamental shift in how organizations operate, create value, and shape their business models through digital technologies (Pascucci *et al.*, 2023; Kim & Jin, 2024). Unlike simple digitalization that focuses on using tools, DT involves deeper changes in culture, capabilities, and decision-making that help firms adapt to fast-changing digital environments (Putritamara *et al.*, 2023). For MSMEs, DT often involves building basic data-driven practices, improving collaboration through digital platforms, and strengthening operational processes (Dwivedi *et al.*, 2021; Saputra *et al.*, 2024). Although DT can enhance efficiency and customer experience, many MSMEs still struggle with limited resources, capability gaps, and uneven ecosystem support (Kurniawati *et al.*, 2021; Smeru Institute, 2022). In Indonesia, DT often progresses gradually as firms respond to external pressures such as the COVID-19 pandemic. Within this context, DT provides a broader foundation that shapes how MSMEs adopt and use digital marketing (DM) as part of their everyday business activities.

Digital marketing (DM) refers to the strategic use of digital technologies, data, and online platforms to create, communicate, and deliver value to customers (Kannan & Li, 2017; Dwivedi *et al.*, 2021). DM is increasingly recognized as an important capability for MSMEs to possess (Pellegrino & Abe, 2023). Rather than functioning only as a set of promotional tools, DM enhances how firms design and deliver value (Pascucci *et al.*, 2023). This positions DM as both a technological and organizational capability that shape value-related activities, such as customer engagement, customer experience, and innovation processes (Pascucci *et al.*, 2023; Cioppi *et al.*, 2023). Given this expanded role, understanding DM as a strategic process becomes important for assessing its contribution to MSMEs performance.

DM also operates as a strategic business process that enables continuous interaction with customers, enhances firm visibility, and integrates marketing activities into broader digital value chains (Kannan & Li, 2017). Despite these potential benefits, many MSMEs struggle to gain meaningful performance improvements because their DM efforts are not strategically integrated with organizational processes or decision-making routines (Kim & Jin, 2024; Almeida & Okon, 2025). This gap highlights the need to examine how DM is implemented and supported in practice. DM activities range from social media management, search-engine optimization, content creation, analytics-driven targeting, and platform-based interactions, all of which influence how firms compete in digital ecosystems (Herhausen *et al.*, 2020; Vesterinen *et al.*, 2024). Most commonly used DM channels by MSMEs include social media platforms (e.g., Facebook, Instagram, TikTok, YouTube) and marketplaces (e.g., Tokopedia, Shopee) (Holland & Gutiérrez-Leefmans, 2018). These platforms provide immediate visibility, customer access, and interactive opportunities that were previously available only to larger firms. For MSMEs, digital marketing is particularly critical because it compensates for resource limitations through affordable, scalable, and accessible tools to support business growth.

RESEARCH METHOD

Planning the Review

This study applies a Systematic Literature Review (SLR) guided by the PRISMA framework (Page *et al.*, 2021). The timeframe covers 2020 to 2025, covering during and post-COVID-19 developments in Indonesian MSMEs' DM studies.

Two complementary databases were used to ensure both international and national coverage. First, Scopus was used as the core evidence, representing internationally indexed Indonesian studies on MSMEs DM. Secondly, SINTA (Indonesian Science and Technology Index) is used as the contextual corpus, capturing locally published studies. To verify relevance and quality of the analyzed studies, inclusion criteria were established (see Table 1), prioritizing firm-side, marketing-oriented, organization- focused, peer-reviewed, and Indonesian context. Additionally, language was limited to English for the Scopus articles and English or Bahasa Indonesia for SINTA studies.

Conducting the Review

An initial Scopus search using the finalized keyword string yielded 448 articles, whose metadata (title, author, abstract, author keywords, source, DOI, and year) were exported to CSV for further screening. Title and DOI matching were done to remove duplicate records. Moreover, both open-access (OA) and non-open-access (non-OA) papers were retained. All 448 articles were screened by title and abstract according to the inclusion criteria (see Table 1). The screening process resulted in the elimination of 182 papers that did not meet the criteria resulting in eligible 266 studies for the main analysis.

Each eligible article was then coded for research design (year, context, method, theory), key variables and construct families coding to identify the conceptual building blocks, and Micro–Meso–Macro (MMM) coding to extract analytical level of each article.

Table 1. Search scope, filters, and selection criteria

Aspect	Description
Search Scope	Combination of keywords covering DM concepts, MSME/entrepreneurship terms, firm-performance outcomes, and Indonesian/ASEAN/emerging-market contexts. (Dwivedi *et al.*, 2021)
Filters Applied	Language: English (for Scopus) and English/Bahasa Indonesia (for SINTA); Document type: articles, reviews, conference papers; Subject areas: business and management, social sciences, economics, decision science, and related fields; Year range: 2020–2025; Access type: both OA and non-OA. (Snyder, 2019)
Inclusion Criteria	Studies that: (1) examine MSMEs or small firms as organizational actors; (2) discuss DM adoption, implementation, or capability; (3) take a managerial/firm-side perspective; (4) link DM to firm-level outcomes (performance, competitiveness, resilience); and (5) are peer-reviewed. (Sagala & Ori, 2024)

Source: Author's elaboration based on PRISMA review protocol (Page *et al.*, 2021)

Analysis (Reporting & Dissemination)

Following Bartoloni and Ancillai (2024), the eligible articles were arranged chronologically to enable a two-stage synthesis: descriptive analysis and analytical interpretation. First, publication years were examined to observe the distribution of MSME-related DM studies in Indonesia and to trace thematic development during 2020–2025. Second, DM tools and channels were mapped to identify the platforms and technologies most frequently studied (for example, social media and analytics tools), linking conceptual discussions to the actual technologies used or explored by Indonesian MSMEs. Third, key variables and construct families were classified to reveal major conceptual building blocks in firm-facing DM research, showing which constructs consistently attract scholarly attention and which remain underexamined. Fourth, studies were categorized by methodological typology, including quantitative (surveys, statistical or descriptive analysis), qualitative (case studies or interviews), mixed-methods,

conceptual or review, and computational (algorithmic, ML or AI based), to assess the field's methodological maturity and to indicate whether research remains largely exploratory or is advancing toward explanatory and causal designs. Fifth, theoretical frameworks were grouped to show how studies define problems and explain relationships, drawing on anchors such as technology-adoption models (TAM, UTAUT, DOI), the TOE framework, capability-based views (RBV, DCV), and entrepreneurial, institutional or innovation perspectives; these frameworks guide the review's classification and interpretation of dominant conceptual lenses. Sixth, the micro, meso, macro (MMM) classification (Moller *et al.*, 2020; Watson and Wu, 2021) was used to distinguish analytical levels, namely micro (individual), meso (firm practices and capabilities), and macro (ecosystem and policy), revealing which levels dominate and which remain underexplored. After these descriptive mappings, the second stage provides an analytical synthesis identifying patterns, emphases and research gaps, presented across six dimensions: publication trends, dominant DM tools and channels, key variables and constructs, methodological approaches, theoretical frameworks and analytical levels in Indonesian MSMEs DM studies.

RESEARCH RESULTS

Overview of Included Studies

The distribution of publications displayed a sharp rise in output after the occurrence of COVID-19 pandemic (Table 2). In the early years (2020–2021), only about 17% of total studies were published. From 2022 onward, publication volume increased sharply, contributing to around 70% of the total studies, suggesting that the pandemic intensified the research interest. Local studies like Rifai & Meiliana (2020) show a similar pattern, that adopting DM tools and employing training programs for firms' personnel become key survival strategies for MSMEs during pandemic.

Table 2. Publication trend (year × number of studies)

Year	Number of Studies (%, N=266)	Dominant Methods	Emerging Analytical Focus / Features
2025	60 (22.6%)	SEM–PLS (≈70%), qualitative case/interview (≈15%)	Rapid diffusion of *digital adoption* and *capability* models; growing interest in AI, FinTech, and ecosystem themes.
2024	65(24.4%)	SEM–PLS/AMOS (≈75%), mixed methods (≈10%)	Consolidation of *digital transformation* and *integration* studies; expansion into green innovation, sustainability, and HR digitalization.
2023	60 (22.6%)	SEM–PLS (≈65%), descriptive/mixed (≈20%)	Post-pandemic recovery phase; focus on resilience, capability-building, and ecosystem support for MSMEs.
2022	35 (13.2%)	SEM–PLS/AMOS (≈60%), qualitative/mixed (≈25%)	Transition from pandemic to adaptation; emphasis on TOE, innovation, and e-commerce in survival contexts.
2021	30 (11.3%)	SEM–PLS (≈55%), reviews & descriptive (≈25%)	Strong pandemic response wave; focus on COVID-driven adoption and government support.

| 2020 | 16 (6.0%) | SEM–PLS (≈50%), conceptual/review (≈30%) | Foundational year—COVID shock triggers digital marketing adoption and basic capability building research. |
| Total | 266 (100%) | — | — |

Source: Author's dataset (2025)

Methodologically, SEM-PLS remains the most frequently used analytical tool, appearing in about 65 percent of the studies reviewed. This reflects a strong preference for quantitative, survey-based approaches. Over 2020-2025, however, the research focus has shifted from technology adoption to more strategic and ecosystem-oriented perspectives. This is particularly visible in the most recent years (2024–2025), when themes like sustainability, green innovation, HR digitalization, and the rise of AI- and FinTech-related topics are discussed more (see Table 2).

Digital-Marketing Tools

Research on DM among Indonesian MSMEs shows a clear bias towards several tools, with social media platforms as the dominant tools.

Table 3. Digital marketing tools

Tools	Typical Functions or Focus	Example Industry Contexts	Freq. (%, N = 266)
Social Media Marketing (SMM)	Branding, engagement, e-WOM, gamification, community building	Creative industries, tourism, culinary MSMEs	82 (30.8 %)
General Digital Marketing Tools (SEO / SEM / Content / Email)	Generic promotion, visibility, multi-platform strategy	Retail, services, fashion	46 (17.3 %)
E-Commerce / Marketplace Platforms	Online selling, platform use (Tokopedia, Shopee, etc.)	Retail, handicraft, agro, food & beverage	41 (15.4 %)
Analytics / AI / Machine Learning Tools	Predictive analytics, sentiment, recommender systems, data-driven insights	Manufacturing, creative, multi-sector	27 (10.2 %)
FinTech / Digital Payment Systems (QRIS, e-wallets)	Transaction efficiency, digital finance adoption, inclusion	Retail, hospitality, SMEs in finance sectors	19 (7.1 %)
Digital Platforms (General / Ecosystem / Cloud / App)	Platform business models, platform strategy, cloud integration	Tourism, logistics, multi-sector	14 (5.3 %)
CRM / ERP / Back-Office Systems	Relationship management, data integration, operational efficiency	Services, manufacturing, creative	10 (3.8 %)
Integrated Digital Transformation Systems	Firm-wide transformation (HR, finance, marketing) and process integration	Cross-sector SMEs	14 (5.3 %)

| Green / Sustainable Digitalization | Eco-innovation, green entrepreneurship, digital sustainability | Manufacturing, tourism, agro industries | 13 (4.9 %) |
| Policy / Ecosystem Support Tools | Infrastructure, incubator systems, digital literacy programs | Regional / institutional programs | < 10 (≈ 3 %) |

Source: Author's dataset (2025)

As shown in Table 3, DM tools used by Indonesian MSMEs show a clear concentration on social media platforms, which account for the largest share of studies and remain central for branding, engagement, and community building in creative, tourism, and culinary sectors. A second group of studies focuses on general digital marketing tools, such as SEO, SEM, email, and content marketing typically applied in retail and service contexts and often linked to visibility improvements through content-based strategies. Research on e-commerce and marketplace platforms like Tokopedia and Shopee also appears prominently, highlighting adoption drivers and online sales outcomes. A smaller stream examines analytics, AI, and machine-learning tools, signaling an early shift toward data-driven decision-making among MSMEs. By contrast, the use of FinTech solutions, CRM/ERP systems, and sustainability-oriented digitalization remains relatively limited, revealing areas where MSMEs' DM practices and academic attention are still developing.

Key Variables and Construct Families

Table 4 reveals a wide variety of constructs and variables used to explain how Indonesian MSMEs adopt, implement, and benefit from DM. To provide clarity, the variables were grouped into several construct families, to further capture the dominant construct areas across the reviewed studies.

Table 4. Key variables / construct families

Construct Family	Typical Variables	Example Studies	Freq (%, N = 266)
Adoption / Use Factors	TAM / UTAUT variables (PE, PU, SI, FC, compatibility, affordability, intention to use), TOE antecedents, readiness	Tatik & Setiawan (2025); Nazila *et al.* (2025); Halim *et al.* (2024)	54 (20.3 %)
Capability / Literacy	Digital literacy, marketing capability, financial literacy, entrepreneurial orientation (EO), market orientation (MO), dynamic capabilities, learning capability	Wulandari *et al.* (2025); Hidayati *et al.* (2025); Iqbal *et al.* (2023)	63 (23.7 %)
Innovation / Transformation	Digital transformation, green / frugal innovation, business model innovation, organizational learning, resilience, ambidexterity	Al Omoush *et al.* (2025); Siregar *et al.* (2024); Putritamara *et al.* (2023);	38 (14.3 %)
Integration / Systems	CRM, ERP, MAIS, HR–finance–marketing integration, cloud systems, platform interoperability	Hariyati *et al.* (2025); Rahmawati *et al.* (2025); Alexandro (2025)	22 (8.3 %)
Practices / Tactics	Social-media campaigns, branding, gamification, content / lead generation, community engagement, strategic planning	Santoso & Rahayu (2025); Putri & Retnowardhani	47 (17.7 %)

			(2023); Basuki *et al.* (2024)	
External / Environmental Drivers	Policy support, infrastructure, training / incubators, ecosystem support, institutional pressures, COVID-19 recovery policies		Utami *et al.* (2025); Saputra *et al.* (2024); Fajarika *et al.* (2023);	19 (7.1 %)

Source: Author's dataset (2025)

As shown in Table 4, capability- and literacy-related constructs form the largest cluster, emphasizing digital literacy, marketing capability, and entrepreneurial or market orientation as key drivers of MSME performance. Adoption and use factors such as typically examined through TAM, UTAUT, and TOE, constitute the next major group, explaining readiness and intention via variables such as usefulness, ease of use, and social influence. Innovation- and transformation-oriented constructs also appear, connecting DM to business model innovation, resilience, and sustainability, while integration-related variables like CRM, ERP, and interoperability remain sparse, indicating limited system-level digitalization. Studies on practices and tactics highlight activities such as social-media campaigns, content creation, and branding, whereas external drivers like policy and institutional influences make up the smallest cluster. Overall, the literature remains concentrated at the micro and meso levels, with relatively little exploration of system integration or broader ecosystem dynamics.

Methodological Characteristics of the Studies

The results show a strong quantitative leaning, with most studies employing causal modeling to examine relationships among adoption, capability, and performance variables, as summarized in Table 5, which displays methodological types, analytical approaches, and representative examples.

Table 5. Methodology types used in MSMEs–DM studies

Methodological Type	Analytical Approach	Typical Tools or Techniques	Example Studies	Freq. % (N = 266)
Quantitative – SEM / PLS-SEM	Dominant empirical design testing causal relationships (TAM, TOE, RBV, DCV frameworks)	SmartPLS, AMOS, WarpPLS, LISREL	Wulandari *et al.* (2025); Mulyana *et al.* (2024); Iqbal *et al.* (2023)	148 (55.6 %)
Quantitative – Other Statistical / Econometric	Non-SEM survey analysis, regressions, path analysis, ML-based prediction	SPSS, Regression, Random Forest, SHAP	Hartanto (2025); Fajarika *et al.* (2023); Inayatulloh *et al.* (2023)	36 (13.5 %)
Mixed Methods (Quant + Qual)	Combined survey and interviews, triangulation for contextual depth	SEM + interviews / FGD	Rohaeni *et al.* (2025); Citraresmi *et al.* (2025); Maryam *et al.* (2022)	19 (7.1 %)
Qualitative / Case Study	Exploratory / interpretive inquiry (contextual mechanisms, barriers, readiness)	Interviews, Thematic analysis, Design / SWOT	Hidayat *et al.* (2025); Tjandrawira *et al.* (2022); Amri *et al.* (2023)	23 (8.6 %)

Systematic / Structured Literature Review (SLR)	Evidence synthesis, bibliometric, or conceptual models	PRISMA, VOSviewer, bibliometric tools	Gunawan (2024); Tran *et al.* (2024); Maryani & Perbangsa (2021)	14 (5.3 %)
Conceptual / Model Design	Theoretical or design-based frameworks for MSME digitalization	Proposals, frameworks, simulations	Andysa *et al.* (2024); Rozaq *et al.* (2020)	9 (3.4 %)
Algorithmic / System Design	Applied analytics, system modeling, or computational prototypes	Apriori, data mining, system dynamics	Sipahutar *et al.* (2022); Suryani *et al.* (2020)	8 (3.0 %)
Machine Learning / AI-Based Analytical Models	Predictive modeling and feature analysis for MSME performance	ML, SHAP, Random Forest	Herdiyeni *et al.* (2025); Hartanto (2025)	5 (1.9 %)
Descriptive / Exploratory Quantitative	Basic surveys or descriptive assessments without inferential modeling	Simple survey / cross-tab analysis	Novianti *et al.* (2025); Oktora *et al.* (2020)	4 (1.6 %)

Source: Author's dataset (2025)

As shown in Table 5, methodological approaches in Indonesian MSMEs DM research are heavily dominated by quantitative designs, with more than half of the studies using variance-based SEM tools such as SmartPLS or AMOS to test causal models. A smaller group applies other statistical or econometric techniques including regressions and predictive algorithms, while qualitative and mixed-method studies remain limited, indicating that contextual depth is still underrepresented. Although computational and AI-driven studies are few, they signal interest toward data-driven modeling, and the presence of systematic or bibliometric reviews points to a small proportion of interest in evidence synthesis. Overall, the landscape remains strongly quantitative, with emerging but still modest methodological diversification, underscoring the need for more longitudinal, comparative, and mixed-method designs to better capture the dynamic nature of MSME digital marketing.

Theoretical Frameworks and Anchors

The review shows that Indonesian MSMEs studies apply a wide range of conceptual frameworks. As seen in Table 6, scholars tend to draw mainly from three major perspectives: technology adoption, capability-based, and innovation-oriented approaches.

Table 6. Theoretical frameworks and anchors in MSMEs–DM studies

Theoretical Anchor / Framework	Core Focus or Lens	Example Applications	Example Studies	Freq. (%, N = 266)
Technology Acceptance / Adoption Models (TAM, UTAUT, DOI)	Explains user or firm intention to adopt DM, e-commerce, FinTech, or AI tools	Perceived usefulness, ease of use, performance expectancy, facilitating conditions	Tatik & Setiawan (2025); Nazila *et al.* (2025); Aldhi *et al.* (2024)	46 (17.3 %)

Technology–Organization–Environment (TOE) Framework	Identifies multi-level determinants of technology adoption	Tech readiness, org culture, external pressure, policy support	Suyanto *et al.* (2025); Halim *et al.* (2024); Aligarh *et al.* (2023);	28 (10.5 %)
Resource-Based View (RBV)	Focuses on internal resources and capabilities as performance drivers	Human capital, digital capability, learning, knowledge management	Mulyana *et al.* (2024); Wulandari *et al.* (2025); Putra *et al.* (2020)	52 (19.5 %)
Dynamic Capabilities View (DCV)	Examines adaptation, agility, and transformation capabilities	Reconfiguration, innovation, ambidexterity, digital sensing	Saputra *et al.* (2024); Tantriana *et al.* (2023);	31 (11.7 %)
Entrepreneurial Orientation (EO) / Market Orientation (MO)	Explains strategic behavior, innovativeness, and risk-taking in DM context	Proactiveness, innovativeness, competitive aggressiveness	Santoso & Rahayu (2025); Hidayati *et al.* (2025); Kristinae *et al.* (2020)	44 (16.5 %)
Institutional / Ecosystem / Policy Perspectives	Highlights external drivers, institutional pressures, or digital ecosystems	Gov't support, incubators, policy frameworks, regulation	Yacob *et al.* (2025); Pramesti *et al.* (2025); Saputra *et al.* (2024);	17 (6.4 %)
Innovation & Transformation Theories (e.g., Open/Green/Frugal Innovation, BMIT, Diffusion)	Frames how digitalization drives innovation, sustainability, and transformation	Open innovation, green innovation, business model transformation	Al Omoush *et al.* (2025); Siregar *et al.* (2024); Putritamara *et al.* (2023)	36 (13.5 %)
Social Media Marketing / Communication Theories	Explains engagement, e-WOM, community, and interaction behavior	Engagement theory, uses-and-gratifications, relationship marketing	Halim *et al.* (2024); Putri & Retnowardhani (2023); Arabella *et al.* (2025)	12 (4.5 %)

Source: Author's dataset (2025)

Theoretical foundations are dominated by adoption frameworks (TAM, UTAUT, TOE) and capability-based theories (RBV, DCV). Entrepreneurial orientation and market orientation appear frequently as behavioral anchors, while innovation- and ecosystem-based frameworks remain underused. Overall, the field balances technological and strategic perspectives but lacks integration across levels.

Analytical Levels (Micro–Meso–Macro)

Different studies approach DM from varying levels of analysis. Table 7 summarizes how researchers examine Indonesian MSMEs' DM from individual (micro), organizational (meso), and ecosystem or policy (macro) perspectives, along with a few that combine these levels into cross-level designs.

Table 7. Distribution by analytical level

Analytical Level	Description	Typical Unit of Analysis	Example Themes / Focus	Freq. (%, N = 266)

Meso (Organizational / Firm-level)	Examines firm or MSME-level practices, performance, or digital capability development.	Individual MSME / firm / business unit	Digital capability, innovation, performance, adoption models	184 (69.2%)
Micro (Individual / Entrepreneur-level)	Focuses on managerial cognition, perception, skills, or behavioral adoption.	Owner–manager, employee, entrepreneur	Digital literacy, self-efficacy, entrepreneurial orientation, behavioral intention	42 (15.8%)
Macro (Institutional / Environmental-level)	Addresses ecosystem, government, policy, or market–institutional context.	Industry, region, national ecosystem	Policy support, ecosystem readiness, institutional barriers, legal/ICT infrastructure	28 (10.5%)
Cross-Level / Multi-Level Integration (Micro ↔ Meso ↔ Macro)	Combines two or more analytical levels (e.g., individual–firm–policy).	Mixed: firm + environment / firm + owner	TOE models, ecosystem–capability interaction, multi-stakeholder collaboration	12 (4.5%)
Total	—	—	—	266 (100%)

Source: Author's dataset (2025)

As shown in Table 7, most studies adopt a meso-level perspective (69.2%), focusing on firm-level practices, capabilities, and performance, often using TOE, RBV, and DCV to explain digital capability development, innovation, and adoption outcomes. Micro-level analyses remain limited (15.8%) and mainly examine behavioral and cognitive factors such as readiness, digital literacy, and self-efficacy, commonly informed by TAM, UTAUT, or EO perspectives, with studies such as Jasri *et al.* (2022) and Sari and Fadli (2023) showing how these individual traits support MSME sales and visibility. Macro-level work (10.5%) is also sparse and generally assesses policy, infrastructure, regulation, or ecosystem readiness through institutional or helix-based frameworks. Cross-level integration is the least explored, with only a few studies linking individual, organizational, and environmental dynamics, including cases of owner–manager learning, digital literacy development, and interactions between firm practices and local policy contexts. Although still limited, these multi-level efforts indicate promising directions for more holistic frameworks in future research.

DISCUSSION

The review shows that DM research on Indonesian MSMEs has expanded rapidly, yet the core orientation of the field remains relatively narrow. Much of the studies continues to treat DM as a matter of technology adoption and platform usage rather than as a strategic and organizational capability. This pattern reflects an early-stage research landscape shaped by Indonesia's accelerated digitalization during and after the pandemic. The dominance of quantitative survey models and adoption-focused theories reinforces this tendency, resulting in studies that document relationships among variables but rarely explore the deeper mechanisms, processes, or contextual conditions that shape digital marketing practices. Limited engagement with innovation perspectives, institutional theories, and cross-level frameworks suggests that the broader strategic and environmental dimensions of MSMEs digitalization are still underdeveloped.

These patterns point to a research field that is still maturing and primarily oriented toward operational and firm-level explanations. The strong focus on meso-level analysis

indicates that many studies conceptualize digital marketing as an internal organizational function rather than as part of a wider socio-technical system influenced by individual capability, managerial behavior, market structure, and policy environments. As a result, key aspects such as digital skill formation, ecosystem readiness, and institutional pressures are only partially captured in current scholarship. Understanding digital marketing as an evolving strategic capability requires attention to these multi-layered influences, and this review provides an interpretive foundation for advancing a more holistic understanding of how Indonesian MSMEs navigate digital transformation.

CONCLUSIONS

As discussed earlier, publication output in this field has surged since 2020, showing growing interest in how MSMEs embrace DM, yet notable gaps remain. Most studies still focus on MSMEs' use of platforms such as social media or e-commerce, with limited attention to how these tools are embedded in strategic aspects of the business. Future research should move beyond simple adoption models and examine how DM supports firm learning, capability building, and sustained performance improvement. Conceptually, most Indonesian MSMEs DM studies still rely on early technology-adoption frameworks, which explain why firms adopt digital tools but are less suited for exploring how MSMEs build and sustain strategic advantages. To address this gap, future research could draw more heavily on capability-based and institutional perspectives, such as the RBV, DCV, and ecosystem theory. Adopting multi-level perspectives that connect individual behavior (micro), organizational capabilities (meso), and broader policy or ecosystem conditions (macro) would also offer a more complete and context-sensitive understanding of MSMEs' DM adoption.

In the methodological aspect, limitations remain in the underuse of approaches that capture depth and context. Qualitative and mixed-method designs are still limited, even though they are essential for understanding the contextual, behavioral, and cultural nuances of MSMEs' DM adoption. Greater use of qualitative approaches, longitudinal designs, and computational techniques such as text mining and network analysis would provide richer insights into how MSMEs adapt and strategize DM.

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