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Research Article

Digital Maturity and the Stages of Digital Transformation in Culinary MSMEs in Indonesia

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Abstract

Digital transformation is increasingly essential for the sustainability and competitiveness of micro, small, and medium enterprises (MSMEs), including the culinary subsector as a key pillar of Indonesia's creative economy. However, digital adoption among culinary MSMEs remains fragmented and does not yet reflect comprehensive digital maturity. This article synthesizes the literature on digital maturity concepts, stages of digital transformation (digitisation–digitalisation–digital transformation), and the main barriers and contextual factors shaping digital maturity development in Indonesian culinary MSMEs. Using a narrative literature review, this study analyzes academic publications and institutional reports through thematic synthesis to identify key patterns and research gaps. The findings indicate that digital maturity is a gradual and multidimensional process encompassing strategy, operational processes, technology and data utilization, human resources and organizational culture, and customer management. Digital maturity advancement is constrained by structural barriers such as limited digital literacy, financing constraints, regulatory and infrastructure challenges, platform dependency, and geographical disparities. This article proposes a contextualized conceptual framework linking digital maturity stages with key enablers, barriers, and outcomes, contributing a context-sensitive perspective from a developing country and providing a foundation for future empirical research and MSME policy formulation.

Keywords: Digital Maturity, Digital Transformation, Culinary MSMEs, Creative Economy, Indonesia

INTRODUCTION

Digitalization has become a critical determinant of competitiveness for micro, small, and medium enterprises (MSMEs), including the culinary subsector, which constitutes a major driver of Indonesia's creative economy. The expansion of the digital ecosystem—covering internet connectivity, e-commerce and food delivery platforms, and digital payment systems—has enabled broader market access and improved operational efficiency. Indonesia's internet penetration reached 79.5% (approximately 221.6 million users), although significant disparities persist between urban and rural areas, shaping unequal opportunities for digital adoption (APJII, 2024b). These conditions are particularly relevant for culinary MSMEs, where sales channels, customer interactions, and service delivery increasingly rely on digital platforms (Google et al., 2024).

Nevertheless, the adoption of digital tools does not automatically translate into comprehensive digital transformation. The literature distinguishes between digitisation (conversion of analog processes into digital form), digitalisation (the use of digital technologies to enhance activities), and digital transformation, which involves broader organizational and socio-economic change (OECD, 2019, 2024). Management studies emphasize that digital transformation is a gradual process—progressing from digitisation to digitalisation and ultimately to transformation—requiring changes in organizational capabilities, processes, and structures rather than mere application usage (Verhoef et al., 2021).

For MSMEs, progression along these stages is often constrained by structural barriers, including limited capital, human resources, digital skills, and policy or institutional constraints, which hinder the realization of sustainable business value from digital initiatives (Group, 2022; Tiwari et al., 2021). While the Indonesian government has set ambitious targets for MSME digitalization, such as onboarding 30 million MSMEs, quantitative adoption alone is insufficient without considering levels of digital maturity and realistic transformation stages, particularly in the culinary subsector (Kementerian Komunikasi dan Informatika, 2024).

Accordingly, a systematic literature review is required to synthesize key concepts and dimensions of digital maturity in MSMEs; clarify the stages of digital transformation across culinary business processes; identify structural barriers limiting maturity progression; and examine geographic disparities between urban and non-metropolitan areas shaped by differences in connectivity and digital skills. Such synthesis is essential to develop a contextually grounded conceptual framework for the digital maturity stages of Indonesian culinary MSMEs and to inform future empirical research and policy interventions.

Objectives of the Literature Review

This literature review aims to map dominant concepts and dimensions of digital maturity in MSME research, including strategy, processes, technology, data, human resources, and governance, with specific relevance to Indonesian culinary MSMEs (Group, 2022; Verhoef et al., 2021). It further synthesizes the stages of digital transformation—digitisation, digitalisation, and digital transformation—and identifies key activities at each stage along the culinary MSME value chain, such as

digital ordering, POS systems, digital payments, platform integration, customer analytics, and business model innovation (OECD, 2024; Verhoef et al., 2021).

Additionally, this review categorizes structural barriers that constrain digital maturity progression, encompassing capital limitations, digital skills and literacy gaps, regulatory factors, and platform dependency (Group, 2022; Kementerian Komunikasi dan Informatika, 2024; Tiwari et al., 2021). It also examines geographic differences between large cities and non-metropolitan areas by linking digital maturity disparities to variations in internet access and digital skill quality (APJII, 2024b; Tiwari et al., 2021). Ultimately, the review seeks to develop a conceptual framework outlining digital maturity stages, enablers, barriers, and expected outcomes, providing a foundation for future mixed-method empirical research (Group, 2022; Verhoef et al., 2021).

METHODS

Review Approach

This study employs a narrative literature review to synthesize and interpret the literature on digital maturity and the stages of digital transformation in culinary MSMEs. This approach is appropriate for research aimed at conceptual integration, framework development, and identification of theoretical gaps within an emerging and multidisciplinary field (Luft et al., 2022). Narrative reviews enable critical and interpretive synthesis of diverse concepts, models, and empirical findings, particularly when phenomena exhibit high contextual variation and terminological diversity, as is the case with MSME digital transformation (Rajagopal et al., 2024; Sukhera, 2022).

Literature Sources

The literature search utilized multiple reputable scholarly sources to ensure comprehensive and high-quality coverage. Primary sources included Scopus and Web of Science (WoS), selected for their rigorous peer-review standards and multidisciplinary scope. Google Scholar was used as a supplementary source to capture relevant studies not indexed in Scopus or WoS, particularly contextual research on MSMEs in developing countries (Harzing & Alakangas, 2016).

In addition to journal articles, this study consulted reports from trusted institutions to support macro-level data, conceptual clarification, and policy context. These sources included publications from the OECD, World Bank, Google–Temasek–Bain & Company, APJII, and the Ministry of Communication and Information Technology of Indonesia (Group, 2022; OECD, 2019).

The search employed English and Indonesian keywords such as digital maturity, digital transformation, SMEs/UMKM, culinary industry, digitization, and digitalization, focusing primarily on literature from the past decade to reflect recent developments.

Inclusion and Exclusion Criteria

Literature was included in this review if it focused on MSMEs, explicitly addressed digitalization or digital transformation (including digital maturity,

digitisation, and digitalisation), and was relevant or conceptually transferable to the culinary or creative industry context. Eligible sources consisted of peer-reviewed journal articles indexed in Scopus or Web of Science, as well as reports from internationally or nationally recognized institutions in digital economy and policy research. Literature was excluded if it lacked direct relevance to MSMEs or digital transformation, was purely technical without conceptual or managerial implications, originated from non-academic sources with insufficient methodological transparency, or duplicated existing findings without adding analytical value. The application of these criteria ensured the relevance, credibility, and analytical rigor of the synthesized literature.

Literature Synthesis Procedure (Thematic Synthesis)

The synthesis followed a thematic synthesis approach (Thomas & Harden, 2008). Relevant studies were systematically reviewed to identify key concepts and findings, followed by thematic coding into four main themes: (1) digital maturity definitions and dimensions; (2) stages of digitisation–digitalisation–digital transformation; (3) structural barriers and enablers; and (4) geographic contexts. These themes were comparatively analyzed to identify patterns and conceptual gaps, with particular attention to developing country contexts. The synthesis informed the development of a conceptual framework for digital maturity stages in Indonesian culinary MSMEs and a future mixed-method research agenda (Eachempati et al., 2022).

RESULT AND DISSCUSSION

Definitions and Dimensions of Digital Maturity

Digital maturity refers to an organization's capacity to leverage digital technologies consistently, integratively, and strategically across processes, data/technology, and people/culture to generate business value, beyond sporadic tool use. This view aligns with evidence that digitally maturing organizations implement systemic changes, including cross-functional collaboration, innovation culture, and digital talent development (Kane et al., 2017). In SMEs/MSMEs, digital maturity also functions as a baseline assessment and a roadmap for staged improvement given resource constraints and limited process formalization, making maturity models useful for prioritizing feasible progress (Sándor & Gubán, 2022; Williams et al., 2019).

Across SME literature, digital maturity is consistently treated as multidimensional. Common dimensions include strategy/leadership, people/culture, processes/operations, technology/data, and products/services/customers. Williams et al. identify six dimensions (strategy, products/services, technology, people/culture, management, processes), while van Tonder et al. propose nine dimensions (strategy, leadership, culture, organization, people, technology, processes, products, customers), suggesting convergence on core constructs with varying granularity (Van Tonder et al., 2024; Williams et al., 2019). For culinary MSMEs, process (order–production–delivery–payment–feedback) and customer experience (ratings/reviews, responsiveness) are particularly salient because operational rhythms and service quality are immediately reflected in digital channels.

Digital Maturity Models for SMEs

The literature suggests three broad model "families." First, dimension-level models assess multiple dimensions and classify maturity levels (e.g., initial to optimized). A lifecycle view highlights that maturity paths may be non-linear and can "jump" stages depending on internal and external parameters (Sándor & Gubán, 2022). Indonesian evidence also uses level-based logic for mapping readiness and barriers, including the Digital Readiness Index (Fadli & Laksamana, 2025). Second, TOE-based models conceptualize digital maturity as an interaction among technology, organization, and environment, addressing the frequent underrepresentation of environmental factors in earlier models (Senna et al., 2023). This is highly relevant for Indonesian culinary MSMEs where platforms, regulations, logistics, and network quality strongly shape whether adoption advances beyond online selling. Third, capability- and practice-centric models emphasize cultural and managerial practices—innovation culture, collaboration, and talent—as foundations of sustained transformation, but require adaptation to micro- and small-enterprise realities (Kane et al., 2017).

Overall, global models are relevant because core internal dimensions recur across contexts, yet they require contextualization for Indonesia where environmental conditions (platform economy, infrastructure gaps, and policy support) substantially affect digital maturity trajectories (Senna et al., 2023; Van Tonder et al., 2024; Williams et al., 2019). Indonesian studies further reinforce that maturity assessment is necessary because MSMEs face understanding, resource, and capital constraints, with many operating at early maturity levels, especially in rural settings (Cahyadi & Artaningrum, 2024; Wianda et al., 2025).

Table 1. Summary of Key Studies on Digital Maturity Models and Digital Readiness in SMEs/MSMEs (Global and Indonesian Evidence)

Author (Year)	Key Findings
Williams et al. (2019)	Systematic literature review of DMM for SMEs; proposes 6 core dimensions (strategy; products/services; technology; people/culture; management; processes).
van Tonder et al. (2024)	Review of digital maturity measurement dimensions for SMEs; identifies 9 common dimensions (strategy, leadership, culture, organization, people, technology, processes, products, customers).
Sándor et al. (2022)	Digital maturity life-cycle model emphasizing multi-dimensionality and maturity levels for SMEs.
Senna et al. (2023)	DMM based on the TOE (Technology–Organization–Environment) framework; highlights that many models neglect the "environment" dimension.
Kane et al. (2017)	MIT SMR–Deloitte research report on organizational practices that distinguish "digitally maturing" companies (culture, cross-functional teams, talent).

Cahyadi & Artaningrum (2024)	Study "Analysis of Digital Maturity Model for MSMEs"; emphasizes the importance of evaluating digital maturity due to understanding, resource, and capital barriers.
Fadli & Laksamana (2025)	Measuring MSME digital readiness (Digital Readiness Index) and mapping strategies/barriers; identifies barriers in digital literacy, capital, and uneven internet access.
Wianda et al. (2025)	Application of the DCMM framework to MSMEs in rural areas; many are at the Emerging/Established level and have not yet integrated into a comprehensive digital strategy.

This table summarizes the main contributions of previous studies frequently cited in the discussion of digital maturity for SMEs/MSMEs, including conceptual approaches, proposed dimensions, and empirical findings relevant to the MSME context, including Indonesia (Kane et al., 2017; Senna et al., 2023; Williams et al., 2019).

Structural Barriers in Improving the Digital Maturity of Culinary MSMEs

The synthesis indicates that culinary MSME digital maturity is frequently constrained by four interrelated structural barriers. First, human resources and digital literacy are persistent bottlenecks: skill gaps, limited awareness, and a lack of complementary managerial capabilities lead to partial adoption without process integration (OECD, 2021a). Indonesian evidence shows variability in digital branding and channel management, while platform adoption (e.g., OFD) may be limited by perceived risk, habits, value perceptions, and usability—so platform use does not necessarily translate into higher maturity (A'yuni et al., 2025; Rahmanto, 2024). Strengthening maturity therefore requires digital managerial capabilities, new routines, and a data-oriented culture, typically concentrated in owners and core teams (OECD, 2021b).

Second, financial constraints inhibit both initial investments (devices, connectivity, tools, training) and ongoing costs (subscriptions, ads, platform commissions), especially for culinary MSMEs with thin margins and cash-flow sensitivity (OECD, 2021a, 2021b). Third, regulatory and ecosystem barriers (compliance, cybersecurity, infrastructure quality, and uneven mentoring ecosystems) shape the feasibility of deeper digitalization beyond basic communication and platform onboarding (OECD, 2021a).

Fourth, platform dependence creates a dual effect: platforms accelerate market access but may constrain progression to advanced maturity through commission burdens, algorithmic dynamics, paid promotion pressures, and limited customer data access, potentially locking MSMEs into superficial digitalization (Tiwari et al., 2021). Consistent with TOE logic, platform dependence is best positioned as part of the environmental dimension and as a mechanism influencing stage transitions (OECD, 2021b; Tiwari et al., 2021).

Geographic Context Differences: Urban vs Non-Metropolitan

Geographic disparities shape the "opportunity space" for culinary MSME digitalization. Survey evidence indicates differences in internet penetration and user distribution across regional categories, with urban areas showing higher penetration than rural areas (APJII, 2024b, 2024a). Beyond access, connectivity quality and speed remain uneven and may widen regional opportunity gaps (Tiwari et al., 2021). Provincial variations in ICT development indicators also reflect differences in access, usage, and ICT skills (BPS, 2025). These disparities imply that urban culinary MSMEs generally face stronger enabling conditions, while non-metropolitan MSMEs are more likely to remain at basic adoption due to infrastructure, skills, and ecosystem constraints (APJII, 2024b; Tiwari et al., 2021). Consequently, policies and interventions should avoid one-size-fits-all approaches that prioritize onboarding without advancing maturity, and instead adopt region-sensitive designs aligned with local readiness (BPS, 2025; OECD, 2021a).

Synthesis and Development of the Conceptual Framework

The literature converges that digital transformation is a staged process—digitisation → digitalisation → digital transformation—requiring integration of processes, data, and organizational capabilities rather than mere presence on platforms or social media (OECD, 2024; Verhoef et al., 2021). For SMEs, maturity advancement depends on complementary assets (skills, management practices, and financing) and environmental conditions (infrastructure, regulation, ecosystem support), with Indonesian dynamics shaped by platform centrality and regional disparities (APJII, 2024b; Group, 2022; OECD, 2021a, 2021b; Tiwari et al., 2021). Policy targets for MSME digital adoption should therefore be evaluated not only by onboarding volume but also by depth of maturity and productivity-oriented outcomes (Kementerian Komunikasi dan Informatika, 2024).

Based on the synthesis, the proposed framework models maturity progression across stages (T1–T3) shaped by contextual readiness (urban vs non-metropolitan; connectivity quality; ecosystem), enablers (capabilities, financing access, process readiness, policy support), and barriers (skills gaps, financing constraints, regulatory uncertainty, infrastructure limitations, platform dependence), producing outcomes such as operational performance, market performance, resilience, and business model innovation (Group, 2022; OECD, 2021a; Verhoef et al., 2021). Platform dependence and regional disparities are positioned as factors that may accelerate early-stage transitions while inhibiting transformation if internal process integration and customer-data capabilities remain weak (OECD, 2021b; Tiwari et al., 2021).

Table 2. Digital Maturity Stages for Culinary SMEs

Stage (Concept)	Focus of Change	Example Indicators in Culinary SMEs	Key Enablers	Dominant Barriers	Expected Outcomes (Example Metrics)
T1 – Digitization (Analog → Digital)	Basic data and record digitalization	Sales recorded via spreadsheet/simple app; digital menu/catalog; customer communication via chat; basic recipe/SOP documentation	Basic digital literacy; minimal devices & internet; awareness of benefits	Device/internet limitations; low literacy; limited time for learning	Administrative efficiency (recording time), error reduction, transaction visibility
T2 – Digitalization (Using technology to change/enhance activities)	Channel integration and operational process improvement	Digital ordering (WA Business/IG/marketplace/OFD); cashless payments; simple POS; integration of promotions-orders; starting to use basic data (popular products, peak hours)	Basic managerial capabilities; operational training; small financing access; community/mentoring support	Subscription/advertisement/commission costs; unstable SOPs; platform dependence; limited access to customer data	Conversion & repeat order growth; production accuracy; reduced cancellations; increased market reach
T3 – Digital Transformation (Strategic changes & business model shifts, broader economic impact)	Redesign business model & capabilities based on data	Multi-channel strategy (platform + direct channels); simple CRM/loyalty programs; operational standardization for scale; analytics (menu engineering, simple demand forecasting); digital supply chain partnerships	Clear governance & strategy; data/analytics capabilities; financing for scaling; stable logistics/payment ecosystem; innovation culture	Advanced skill gaps; limited access to scaling capital; policy/platform cost uncertainty; regional disparities (logistics & network quality)	Productivity & profitability; resilience (stability during shocks); product/service innovation; sustainable market expansion

The digital maturity stages presented in Table 1 are grounded in the widely adopted distinction between digitisation, digitalisation, and digital transformation as defined by the OECD and elaborated in cross-disciplinary studies (OECD, 2024; Verhoef et al., 2021). Progression across stages reflects increasing integration of processes, data, and organizational capabilities rather than expanded use of digital tools alone. Consistent with SME literature, enablers and barriers incorporated in the framework emphasize the roles of skills, management capabilities, financing access, and ecosystem conditions in determining whether digital adoption leads to productivity-enhancing transformation or remains superficial (Group, 2022; OECD, 2021a).

Conceptually, the framework posits that digital maturity progression is shaped by the interaction between contextual readiness, organizational enablers, and structural barriers. Contextual factors—such as internet quality, infrastructure, and local ecosystem support—affect the likelihood of stage transitions, with urban MSMEs generally advancing faster than those in non-metropolitan areas (APJII, 2024b; Tiwari et al., 2021). Organizational enablers increase the probability of transition across stages, while structural barriers and platform dependence may slow or block transformation, resulting in uneven maturity trajectories. Outcomes evolve with higher maturity stages, shifting from administrative efficiency to operational performance, resilience, and innovation (OECD, 2021b).

Implications for Research and Practice

The review reinforces that "going online" is not equivalent to maturity; rather, maturity reflects staged capability building across strategy, processes, people/culture, and data use (OECD, 2019, 2024; Verhoef et al., 2021). The key conceptual contribution is a developing-country and platform-economy lens that foregrounds environmental constraints and enablers, consistent with TOE-based insights (OECD, 2021a; Senna et al., 2023; Tiwari et al., 2021). The framework also integrates geographic divides as determinants of maturity trajectories, challenging assumptions of homogeneous maturity pathways and underscoring place-based readiness shaped by infrastructure and ICT development (APJII, 2024b; BPS, 2025; Tiwari et al., 2021).

For policy and MSME support, the findings suggest shifting from onboarding-only programs toward stage-based capability building (e.g., SOPs, record-keeping, menu/production management, basic analytics) and region-specific interventions: foundational infrastructure and literacy support in non-metropolitan areas, and process integration/analytics and channel diversification in urban areas (APJII, 2024b; Group, 2022; Kementerian Komunikasi dan Informatika, 2024; OECD, 2021b, 2021a; Tiwari et al., 2021). Platform dependence should be managed through "platform literacy" and asset ownership via direct channels to protect margins and customer relationships (OECD, 2021b; Tiwari et al., 2021).

For culinary SMEs, the proposed framework offers a practical roadmap for staged digital maturity development, starting from basic digitization of records and menus, progressing to integrated ordering–payment–production processes, and ultimately enabling data-driven decision-making and service model innovation. In line with policy recommendations, SMEs are encouraged to build complementary

assets—such as digital skills, managerial capabilities, and standardized processes—so that digital adoption enhances productivity rather than merely adding sales channels (Group, 2022; OECD, 2021b). Consistent with digital maturity literature, culinary SMEs should treat platforms as channels rather than sole market owners by monitoring commission and promotion costs and gradually developing direct channels to protect margins and customer relationships (Kane et al., 2017; Verhoef et al., 2021).

Future Research Agenda

Future studies should test and refine the proposed framework using a sequential mixed-methods approach. Qualitative inquiry can be employed to validate digital maturity stage indicators and underlying mechanisms, including platform dependence, while capturing contextual variations across culinary MSMEs. Subsequently, quantitative analysis may examine the relationships between enablers, structural barriers, digital maturity levels, and performance outcomes, with particular attention to differences between urban and non-metropolitan contexts (APJII, 2024b; Creswell & Clark, 2017; Tiwari et al., 2021).

Methodologically, future research can test and refine the proposed framework using two complementary measurement approaches. First, a digital maturity index based on composite scores across key dimensions may be applied for quantitative analysis and MSME group mapping. Second, stage-based classification (T1–T3) can be employed to examine digital maturity transitions and regional differences. Combining these approaches allows conceptual clarity while maintaining practical relevance for empirical (OECD, 2021b; Williams et al., 2019).

To enhance measurement validity, future studies are encouraged to triangulate data sources, including survey responses, organizational documentation, and digital footprints such as transaction records, platform usage patterns, and customer interaction metrics. This triangulation approach is consistent with best practices in management and information systems research and supports more robust empirical validation of digital maturity frameworks (Creswell & Clark, 2017; Reis et al., 2022).

Table 3. Components, Variables, and Indicators for Measuring Digital Maturity in Culinary SMEs

Component	Potential Variables	Example Measurement Indicators (Likert/Objectives)	Conceptual References
Maturity Stage	T1/T2/T3 Levels	Composite score + stage classification; practice checklist (digital record-keeping, POS, digital payments, simple analytics, CRM/loyalty)	OECD (2019; 2024); Verhoef et al. (2021)
People/Culture	Digital literacy, training, data culture	Frequency of training; digital self-efficacy; data use in menu/price decisions	OECD (2021b); Kane et al. (2017)
Process	Standardization of operations, order-production-delivery integration	Existence of SOPs; lead time; error rate; order cancellations	Verhoef et al. (2021); World Bank (2022)

Technology & Data	Infrastructure, core applications, data integration	Use of POS/inventory; cost tracking; use of simple dashboards	World Bank (2022); Williams et al. (2019)
Customer	Customer experience management	Ratings/reviews; repeat orders; chat response time; complaints	van Tonder et al. (2024)
Environment/ Platform	Platform dependency, ecosystem support	Proportion of orders from platforms; commission fees; customer data access; mentor/community access	World Bank (2021); OECD (2021b); Senna et al. (2023)
Regional Context	Urban vs. non-metropolitan; internet quality	Regional category; internet access indicators; ICT development index (IP-TIK)	APJII (2024); BPS (2025)
Outcome	Productivity, profitability, resilience, innovation	Changes in sales/margin; cash flow stability; adaptability to shocks; service innovation	Verhoef et al. (2021); World Bank (2022); OECD (2021b)

CONCLUSION

This review concludes that improving the digital maturity of culinary SMEs cannot be reduced to technology adoption or mere participation in digital platforms. Instead, digital maturity represents a gradual and staged transformation process involving the integration of strategy, operational processes, human resource capabilities, and data-driven decision-making. The synthesis confirms that the stages of digitisation, digitalisation, and digital transformation constitute a realistic maturity trajectory for SMEs, while also demonstrating that progression across these stages is strongly shaped by structural and contextual conditions.

The findings highlight four interrelated factors that critically influence digital maturity among culinary SMEs in Indonesia. First, limited digital literacy and managerial capabilities often constrain digitalisation to a superficial level, preventing meaningful process integration. Second, financial constraints and cash-flow sensitivity limit investments in digital systems and medium-term capability development. Third, disparities in infrastructure quality and supporting ecosystems contribute to uneven maturity patterns between urban and non-metropolitan areas. Fourth, dependence on digital platforms functions as a double-edged mechanism, accelerating market access while potentially inhibiting deeper transformation if not accompanied by stronger internal processes and ownership of digital assets.

Based on these insights, this article proposes a contextualized conceptual framework that links digital maturity stages with key enablers, barriers, and performance outcomes for culinary SMEs in Indonesia. The framework underscores the need for a phased and place-sensitive approach, offering a foundation for policy design and mentoring programs that move beyond one-size-fits-all digitalization strategies.

Theoretically, this review contributes to the digital maturity literature by integrating geographical context and platform economy dynamics into SME-focused frameworks from a developing country perspective. Practically, it provides guidance for policymakers, support institutions, and culinary SMEs to prioritize capability building and process integration over tool-centric adoption. Finally, the proposed

framework establishes a basis for future mixed-method empirical research to systematically examine the relationship between digital maturity progression and SME performance.

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