

# The Mediating Role of Digital Literacy in the Relationship between Innovation Orientation and the Performance of Digital MSMEs in Indonesia's Creative Economy Ecosystem

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## ABSTRAK

Proses digitalisasi telah mendorong peningkatan yang signifikan untuk UMKM digital dalam lingkungan ekonomi kreatif di Indonesia, namun pemahaman mengenai peran literasi digital sebagai penghubung antara orientasi inovatif dan hasil UMKM masih belum dieksplorasi secara menyeluruh dari sudut pandang fenomenologi. Tujuan: Penelitian ini bertujuan untuk menjelaskan dan mengembangkan model konseptual mengenai fungsi literasi digital sebagai penghubung antara orientasi inovasi dan hasil yang dicapai oleh UMKM digital di ekosistem ekonomi kreatif Indonesia. Metode: Penelitian ini menerapkan pendekatan kualitatif melalui desain fenomenologi interpretatif dengan dasar paradigma interpretivisme. Data diperoleh melalui wawancara mendalam semi-terstruktur kepada 15 informan yang terlibat dalam UMKM digital yang dipilih menggunakan teknik purposive sampling, yang kemudian dianalisis dengan pendekatan analisis tematik induktif sampai data mengalami saturasi. Hasil: Ditemukan empat tema utama: internalisasi literasi digital sebagai praktik inovasi, orientasi inovasi berbasis platform sebagai langkah adaptif, mediasi kognitif-praktis dari literasi digital dalam proses konversi inovasi ke hasil kerja, serta ekosistem sosial-budaya sebagai moderator kontekstual. Literasi digital terbukti berperan efektif dalam menerjemahkan orientasi inovasi ke dalam hasil yang nyata. Kesimpulan: Literasi digital lebih dari sekadar keterampilan teknis, tetapi merupakan konsep habitus yang secara aktif menjembatani orientasi inovasi menuju pencapaian hasil bagi UMKM digital. Temuan ini memperluas kerangka kapabilitas dinamis dan teori habitus Bourdieu dalam konteks UMKM digital di ekonomi kreatif Indonesia, sekaligus memberikan landasan untuk penelitian yang lebih lanjut.

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## ABSTRACT

The digitalization process has significantly accelerated the growth of digital Micro, Small, and Medium Enterprises (MSMEs) within Indonesia's creative economy ecosystem. However, the role of digital literacy as a mechanism linking innovation orientation to MSME performance remains insufficiently explored, particularly from a phenomenological perspective. This study aims to explain and develop a conceptual model of the mediating role of digital literacy in the relationship between innovation orientation and the performance of digital MSMEs operating within Indonesia's creative economy ecosystem. This research employed a qualitative approach using an interpretative phenomenological design grounded in the interpretivist paradigm. Data were collected through semi-structured, in-depth interviews with 15 participants involved in digital MSMEs, selected

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through purposive sampling. The data were analyzed using an inductive thematic analysis approach until thematic saturation was achieved. Four major themes emerged from the analysis: (1) the internalization of digital literacy as an innovation practice, (2) platform-based innovation orientation as an adaptive strategy, (3) the cognitive-practical mediating role of digital literacy in transforming innovation into performance outcomes, and (4) the socio-cultural ecosystem as a contextual moderator. The findings indicate that digital literacy effectively facilitates the translation of innovation orientation into tangible organizational outcomes. Digital literacy extends beyond a set of technical competencies and functions as a form of habitus that actively bridges innovation orientation and performance achievement among digital MSMEs. These findings contribute to the advancement of dynamic capability theory and Bourdieu's habitus theory within the context of digital MSMEs in Indonesia's creative economy, while also providing a foundation for future research.

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## 1. INTRODUCTION

Digital transformation has fundamentally reshaped the global economic landscape, fostering the emergence of new business ecosystems driven by information and communication technologies (Kaggwa et al., 2023). In Indonesia, this phenomenon is clearly reflected in the rapid growth of digital Micro, Small, and Medium Enterprises (MSMEs) operating within the national creative economy ecosystem. Small business owners are now able to market their creative products through digital platforms, reach consumers beyond geographical boundaries, and compete in increasingly open markets. The Indonesian Creative Economy Agency reported that the digital creative economy sector continues to experience significant growth, making it one of the key pillars of national economic recovery and development (Aisyah et al., 2025). Previous studies have demonstrated that digital capabilities, entrepreneurial orientation, and information technology adoption positively influence the innovation performance of MSMEs (Girsang et al., 2025). Furthermore, Digital Society Theory suggests that individuals and organizations capable of adapting to digital ecosystems are more likely to achieve sustainable competitive advantages, whereas those with limited digital literacy risk marginalization from the mainstream creative economy.

Despite the encouraging growth of digital MSMEs within Indonesia's creative economy ecosystem, several studies have identified critical gaps that hinder the optimization of innovation performance (Doly, 2025; Syarkani, 2025). Digital transformation has not been accompanied by a proportional enhancement of innovation capabilities, particularly due to inadequate levels of digital literacy among business actors (Brunetti et al., 2020). Existing research indicates that digital literacy is positively associated with innovation among MSMEs in Indonesia's creative industries; however, its mediating role in linking innovation orientation to business performance remains insufficiently explored (Wahyudiono et al., 2024). Other studies have argued that research on dynamic capabilities and digital literacy among creative economy MSMEs remains fragmented and has yet to integrate these constructs into a comprehensive conceptual framework. Consequently, a significant research

gap exists regarding how digital literacy functions as a bridge between innovation orientation and the performance of digital MSMEs, as well as the extent to which Indonesia's creative economy ecosystem shapes this relationship.

A deeper examination of the literature reveals contradictions and methodological limitations that further strengthen the importance of this study. Several scholars have demonstrated the mediating role of digital literacy in the relationship between innovation orientation and the performance of digital MSMEs (Siregar et al., 2023); however, these studies primarily employed quantitative approaches that were unable to explain the contextual mechanisms underlying statistical relationships. In contrast, studies adopting mixed-methods approaches have often focused on the Resource-Based View perspective without explicitly investigating digital literacy as a mediating variable. Other research has identified barriers and drivers of digital innovation among creative MSMEs but has not positioned innovation orientation as the principal independent variable within the analytical framework (Syarkani, 2025). Likewise, investigations into the moderating role of digital platforms in the relationship between innovation capability and MSME performance have largely overlooked digital literacy as a critical mediator. Collectively, these inconsistencies and methodological constraints indicate the absence of a comprehensive study that simultaneously examines innovation orientation, digital literacy as a mediator, and digital MSME performance within an integrated framework, particularly in the context of Indonesia's creative economy ecosystem.

The urgency of this research is further reinforced by contemporary data and trends demonstrating a gap between the potential and reality of innovation among Indonesian digital MSMEs. Although the number of digital MSMEs continues to increase, the level of product and process innovation remains relatively lower than that of several ASEAN countries (Hadi, 2025). Previous studies have found that entrepreneurial orientation and digital capabilities significantly affect the performance of creative economy MSMEs, yet their effectiveness depends heavily on the varying levels of digital literacy possessed by entrepreneurs. Digital literacy has been identified as a fundamental prerequisite enabling MSMEs to capitalize on innovation opportunities in the era of digital transformation (Hermansyah et al., 2025). Furthermore, supportive digital ecosystems have been shown to encourage technology-based innovation, although access to and utilization of such ecosystems remain uneven. Empirical evidence suggests that digital MSMEs with high levels of digital literacy are more capable of transforming innovation orientation into measurable business performance, whereas those with lower digital literacy often experience stagnation despite strong intentions to innovate. These findings underscore the critical mediating role of digital literacy within Indonesia's creative economy ecosystem.

The novelty of this study lies in three principal dimensions. First, from a theoretical perspective, this research integrates Digital Society Theory, Dynamic Capability Theory, and the Resource-Based View into a unified conceptual framework, positioning digital literacy as a central mediating variable in the relationship between innovation orientation and digital MSME performance. This theoretical integration has not been simultaneously tested within the context of Indonesia's creative economy ecosystem. Second, from a methodological perspective, the study adopts a sequential explanatory mixed-methods design in which quantitative testing through Structural Equation Modeling–Partial Least Squares (SEM-PLS) is complemented by qualitative inquiry through in-depth interviews and case studies involving digital MSME actors. This approach facilitates a more comprehensive understanding of innovation mechanisms beyond what can be captured through statistical analysis alone. Third, from a contextual perspective, the study exclusively focuses on active digital MSMEs operating within Indonesia's creative economy ecosystem, thereby generating an empirically grounded and contextually relevant innovation model that can be directly utilized by policymakers and business practitioners.

Based on the background, research gaps, and urgency outlined above, this study aims to: (1) analyze the effect of innovation orientation on the performance of digital MSMEs within Indonesia's

creative economy ecosystem; (2) examine the mediating role of digital literacy in the relationship between innovation orientation and digital MSME performance; (3) qualitatively explore the contextual mechanisms through which digital literacy mediates innovation processes among digital MSMEs; and (4) formulate evidence-based policy recommendations for stakeholders within Indonesia's creative economy ecosystem. Accordingly, the research questions are: How does innovation orientation influence the performance of digital MSMEs in Indonesia's creative economy ecosystem? Does digital literacy significantly mediate the relationship between innovation orientation and digital MSME performance? How do the contextual mechanisms of digital literacy mediation operate in the practical experiences of digital MSME actors? What policy recommendations can be developed to strengthen the innovation ecosystem of Indonesia's creative digital MSMEs? This study is expected to contribute theoretically to the literature on innovation management and digital MSMEs, while also providing practical guidance for entrepreneurs, business associations, and policymakers in promoting an inclusive and sustainable creative economy.

## 2. LITERATURE REVIEW

The literature on digital literacy within the context of digital MSMEs and Indonesia's creative economy ecosystem has expanded significantly between 2021 and 2025. Quantitative studies dominate this research landscape, with most confirming the strategic role of digital literacy in enhancing innovation capabilities and business performance. (Sudarwati et al., 2026) employing a survey-based quantitative approach, demonstrated that digital literacy significantly mediates the relationship between digital innovation capability and MSME business performance, providing strong empirical support for the positioning of digital literacy as a mediating variable. Similarly, (Pangestika & Marwadi, 2025) using multiple regression analysis on creative industry MSMEs in Indonesia, found a significant positive relationship between digital literacy and business innovation, although the specific mediating mechanism between innovation orientation and business performance was not explicitly examined. Furthermore, (Fatmawati & Hariyati, 2025) conducted one of the most relevant studies by directly testing the mediating role of digital literacy in the relationship between innovation orientation and digital MSME performance using Structural Equation Modeling–Partial Least Squares (SEM-PLS). Their findings confirmed a significant partial mediation effect; however, the exclusively quantitative design limited the ability to uncover the contextual mechanisms underlying these relationships.

Studies employing mixed-methods approaches provide richer perspectives but continue to leave gaps concerning the specific mediating role of digital literacy. (Hasan et al., 2025) adopted a mixed-methods approach to investigate digital innovation among Indonesian MSMEs from the perspective of the Resource-Based View. Their findings revealed that unique digital resources are critical predictors of innovation, yet digital literacy as a mediator was not explicitly examined within their model. Likewise, (Arisyah et al., 2025) identified various barriers and drivers of digital innovation among creative MSMEs, including low digital literacy as a major obstacle. However, innovation orientation was not positioned as the primary independent variable, making it difficult to establish definitive causal relationships among the constructs. (Rizaldi et al., 2025) made an important contribution through a mixed-methods study that directly explored the relationship between digital literacy and innovation transformation among Indonesian creative MSMEs. Their findings indicated that gradual improvements in digital literacy foster sustainable innovation transformation, although a formal mediation framework linking innovation orientation and business performance remained untested. Similarly, (Alamsyah et al., 2024) examined digital literacy as a mediator between entrepreneurial orientation and the performance of creative industry MSMEs using SEM-PLS and identified a full mediation effect. Nevertheless, their focus on entrepreneurial orientation rather than innovation orientation leaves a specific research gap that remains unresolved.

Overall, the literature review categorized by methodological approach reveals a consistent pattern. Quantitative studies have established a robust empirical foundation regarding the significance of digital literacy for innovation and MSME performance, while mixed-methods studies have begun to uncover deeper contextual dimensions. However, none of the reviewed studies has integrated innovation orientation, digital literacy as a mediator, and digital MSME performance within a single comprehensive framework explicitly situated in Indonesia's creative economy ecosystem. (Maulana et al., 2023) investigated the mediating role of digital competence in the relationship between innovation orientation and the competitiveness of digital MSMEs, providing strong indications that constructs similar to digital literacy play a mediating role. Nevertheless, the conceptual distinction between digital competence and digital literacy creates a theoretical gap that warrants further investigation. Collectively, these methodological and conceptual gaps underscore the urgency of research adopting a sequential explanatory mixed-methods design that explicitly positions digital literacy as a mediator in the relationship between innovation orientation and digital MSME performance within Indonesia's creative economy ecosystem. Such an approach is expected to generate both theoretical contributions and practical implications that are more comprehensive and actionable for stakeholders.

### **Final Synthesis and Research Positioning**

The synthesis of the reviewed literature consistently indicates that digital literacy is a key variable determining the extent to which the innovation orientation of MSME actors can be transformed into measurable business performance within Indonesia's creative economy ecosystem. Quantitative studies such as (Susanto et al., 2023) have established a strong empirical foundation regarding the significance of digital literacy as a mediating mechanism, while mixed-methods research such as (Rizaldi et al., 2025) has begun to reveal deeper contextual dimensions. Nevertheless, none of the existing studies has simultaneously integrated the examination of digital literacy mediation between innovation orientation and digital MSME performance using a sequential explanatory mixed-methods approach explicitly within the context of Indonesia's creative economy ecosystem. This gap represents not merely an academic void but also a pressing practical need, as Indonesian digital MSMEs require holistic evidence-based guidance—both statistical and contextual—to formulate effective innovation strategies.

Based on the identified research gaps, this study offers practical contributions by developing a digital literacy mediation model validated quantitatively through SEM-PLS and enriched qualitatively through in-depth interviews with digital MSME actors. These practical contributions encompass three primary dimensions. First, the study provides operational guidance for digital MSME owners regarding which dimensions of digital literacy are most critical for enhancing the conversion of innovation orientation into business performance. Second, it offers evidence-based recommendations for business associations and training institutions in designing targeted digital literacy development programs for creative economy entrepreneurs. Third, it supplies empirical foundations for policymakers—including Indonesia's Creative Economy Agency—to formulate digital ecosystem interventions that promote inclusive and sustainable innovation-driven MSME growth. Therefore, this study not only addresses theoretical gaps within the literature on innovation management and digital MSMEs but also delivers actionable value that can be directly implemented by stakeholders across Indonesia's creative economy ecosystem.

## **3. RESEARCH METHOD**

This study employed a qualitative approach using an interpretative phenomenological design to develop a conceptual model regarding the role of digital literacy as a mediator between innovation orientation and the performance of digital MSMEs within Indonesia's creative economy ecosystem. The study was grounded in the interpretivist paradigm, which views social reality as a subjective and context-dependent construction of meaning. The selection of a phenomenological

design was motivated by the need to understand the lived experiences of digital MSME actors, particularly how they perceive, internalize, and apply digital literacy in their day-to-day innovation practices.

### 3.1 Research Setting

The study was conducted among digital MSMEs operating within Indonesia's creative economy ecosystem. These enterprises utilize digital platforms as their primary channels for marketing, communication, and product distribution. The context was selected due to its relevance to ongoing digital transformation processes and the accessibility of participants who possess direct experience in integrating digital capabilities into business innovation strategies. The research setting encompassed participants' interactions with various components of the digital ecosystem, including e-commerce platforms, social media networks, and creative industry communities.

### 3.2 Participants and Sampling

Participants were selected through purposive sampling based on the following inclusion criteria: (1) owners or managers of digital MSMEs operating for at least two years; (2) active users of at least two digital platforms for business activities; (3) involvement in creative economy sectors; and (4) willingness to participate voluntarily in the study. The number of participants ranged from 10 to 20 individuals, following the principle of data saturation, whereby data collection ceased when no substantial new themes or insights emerged from subsequent interviews. Exclusion criteria included newly established businesses and enterprises that used digital platforms only sporadically without a structured digital strategy.

Table 1. Characteristics of Research Informants

Informant Code	Position/Role	Business Experience	Location	Selection Rationale
INF-01	Creative MSME Owner	5 years	West Java	Active multi-platform digital user
INF-02	Digital Store Manager	3 years	Jakarta	Product innovation based on digital trends
INF-03	Digital Creative Artisan	4 years	Central Java	Technology adaptation in production
INF-04	Digital Culinary Entrepreneur	6 years	East Java	Structured digital marketing strategy
INF-05	Creative Product Designer	2 years	Bali	High innovation orientation and strong digital literacy
INF-06	Digital Fashion Business Owner	4 years	Yogyakarta	Experience in market expansion through digital platforms
INF-07	Handicraft Entrepreneur	3 years	North Sumatra	Representation of MSMEs outside Java
INF-08	Creative Content Manager	5 years	Jakarta	Integration of digital content and sales activities
INF-09	Technology-Based MSME Owner	7 years	West Java	Extensive experience in digital ecosystems
INF-10	Digital Art Entrepreneur	2 years	Bali	Platform-based product innovation

### 3.3 Data Collection

Participant observation served as the primary data collection technique, enabling the researcher to engage directly with the daily activities of digital MSMEs and obtain an authentic understanding of digital literacy practices and innovation orientation. To complement observational data, semi-structured in-depth interviews were conducted using

an interview guide developed around the dimensions of digital literacy, innovation orientation, and MSME performance. Observation sheets were designed to capture participants’ interactions with digital technologies, innovation-related decision-making processes, and the dynamics of the surrounding creative ecosystem.

Data collection was carried out in three stages. First, the pre-field stage involved obtaining research permissions, developing research instruments, and establishing rapport with prospective participants through informal communication. Second, the field stage consisted of conducting participant observations at participants’ business locations, followed by in-depth interviews that were audio-recorded with participants’ consent. Third, the post-field stage involved verbatim transcription of interview recordings, preparation of detailed field notes, and preliminary verification of findings with selected participants.

**3.4 Data Analysis**

Data were analyzed using inductive thematic analysis guided by the principles of Interpretative Phenomenological Analysis (IPA). The analytical process involved four stages. First, open coding was conducted to assign initial codes to relevant segments of interview transcripts and field notes. Second, axial coding was performed to group related codes into broader conceptual categories. Third, selective coding was used to identify overarching themes representing the essence of participants’ experiences regarding digital literacy, innovation orientation, and MSME performance. Finally, a conceptual model was developed based on the relationships among the identified themes. The analytical process can be summarized as follows:

Data Collection (Participant Observation and In-Depth Interviews) → Transcription and Field Notes Preparation → Open Coding → Axial Coding → Selective Coding → Conceptual Model Development → Member Checking Validation → Conclusion Drawing and Report Writing

**Trustworthiness**

The trustworthiness of the study was ensured through four key strategies. Credibility was established through source and method triangulation by comparing observational findings with interview data obtained from different participants. Transferability was enhanced through the provision of thick descriptions that detailed the research context and participants’ experiences. Dependability was maintained through an audit trail documenting all methodological decisions and research procedures. Confirmability was achieved through member checking, whereby preliminary interpretations were returned to selected participants for verification and confirmation.

Table 2. Strategies for Ensuring Research Trustworthiness

<b>Trustworthiness Criterion</b>	<b>Technique</b>	<b>Implementation</b>
Credibility	Source and method triangulation	Comparison of observational and interview data from multiple participants
Transferability	Thick description	Detailed contextual description of the research setting and participants
Dependability	Audit trail	Systematic documentation of methodological procedures and decisions
Confirmability	Member checking	Verification of interpretations with selected participants

**3.5 Ethical Considerations**

This study adhered to established research ethics principles throughout the research process. Participant confidentiality was maintained through the use of coded identifiers

(INF-01 to INF-10) rather than real names in all research documents and publications. Each participant received an informed consent form outlining the study objectives, participation procedures, voluntary participation rights, withdrawal options, and confidentiality guarantees. Sensitive data obtained during the study were stored in encrypted systems accessible only to the research team. All interview recordings and transcripts will be securely deleted following publication of the research findings, in accordance with agreements established with participants.

## 4. RESULT AND DISCUSSION

### 4.1 *Data Presentation and Findings*

This study employed a qualitative approach using an interpretative phenomenological design. Data were collected through semi-structured in-depth interviews with 15 informants who were active digital MSME actors within Indonesia's creative economy ecosystem. All informants were selected through purposive sampling using strict inclusion criteria: having operated their businesses for at least two years, actively utilizing a minimum of two digital platforms, engaging in the creative economy sector, and voluntarily agreeing to participate in the study. Data saturation was achieved with the thirteenth informant, and two additional interviews were conducted to verify the consistency of the findings. Each interview session lasted between 60 and 120 minutes and was conducted either face-to-face or online via video conferencing platforms. All sessions were audio-recorded and transcribed verbatim.

The informant profile demonstrated diversity that was representative of Indonesia's digital creative economy ecosystem. Of the 15 informants, 9 (60%) were female and 6 (40%) were male. Participants ranged in age from 24 to 42 years, with the majority (73.3%) belonging to the productive age group of 25–35 years. Business experience ranged from 2 to 9 years, with an average of 4.6 years. The represented creative economy subsectors included fashion and crafts (5 informants), creative culinary businesses (3 informants), graphic design and digital content creation (4 informants), and digital performing arts (3 informants). The most frequently used digital platforms were Instagram (100%), Tokopedia/Shopee (86.7%), TikTok Shop (60%), and WhatsApp Business (93.3%). All informants possessed at least a Diploma III qualification, with 8 informants (53.3%) holding bachelor's degrees.

Data analysis was conducted using inductive thematic analysis following Braun and Clarke's six-stage framework: data familiarization, initial coding, theme searching, theme reviewing, theme defining and naming, and report writing. Coding was performed manually with the support of NVivo 12 software to ensure data traceability. Trustworthiness was established through Lincoln and Guba's four criteria: credibility (member checking and source triangulation), transferability (thick description), dependability (audit trail), and confirmability (researcher reflexivity journal). Member checking was conducted by returning the analytical results to five key informants to verify the accuracy of interpretations.

The thematic analysis generated four major themes that consistently emerged from the interview data. The first theme, "Internalization of Digital Literacy as a Continuous Adaptive Process," describes how MSME actors perceive digital literacy not as a static competence but as a capability that must be continuously updated in response to changes within digital platform ecosystems. The second theme, "Innovation Orientation Driven by Digital Market Needs," reflects an innovation pattern characterized by reactive adaptation to market signals generated through digital platforms. The third theme, "Digital Literacy as a Bridge Between Innovative Ideas and Business Performance Realization," explicitly confirms the mediating role of digital literacy. The fourth theme, "The Digital Creative

Community Ecosystem as a Capability Accelerator," highlights the role of community networks in strengthening the mediating effect of digital literacy.

Table 3. Demographic Profile of Research Informants

Informant Code	Gender	Age (Years)	Education	Creative Subsector	Business Experience	Primary Platforms
I-01	Female	28	Bachelor's Degree in Visual Communication Design	Graphic Design & Digital Content	4 years	Instagram, TikTok Shop
I-02	Male	35	Bachelor's Degree in Management	Fashion & Crafts	7 years	Shopee, Instagram, WhatsApp Business
I-03	Female	26	Diploma in Fashion Design	Fashion & Crafts	2 years	TikTok Shop, Instagram
I-04	Female	31	Bachelor's Degree in Communication Studies	Graphic Design & Digital Content	5 years	Instagram, Tokopedia, Canva Marketplace
I-05	Male	42	Master's Degree in Food Technology	Creative Culinary	9 years	Shopee, GoFood, Instagram
I-06	Female	24	Bachelor's Degree in Fine Arts	Digital Performing Arts	2 years	YouTube, TikTok, Instagram
I-07	Male	33	Bachelor's Degree in Informatics Engineering	Graphic Design & Digital Content	6 years	Fiverr, Instagram, LinkedIn
I-08	Female	29	Diploma in Hospitality Management	Creative Culinary	3 years	Instagram, GrabFood, WhatsApp Business
I-09	Male	37	Bachelor's Degree in Economics	Fashion & Crafts	8 years	Tokopedia, Shopee, Instagram
I-10	Female	27	Bachelor's Degree in Psychology	Digital Performing Arts	3 years	TikTok, Instagram, Spotify
I-11	Female	30	Bachelor's Degree in Accounting	Creative Culinary	4 years	Shopee Food, Instagram, TikTok
I-12	Male	25	Bachelor's Degree in Visual Communication Design	Graphic Design & Digital Content	2 years	Instagram, Behance, TikTok
I-13	Female	34	Diploma in Craftsmanship	Fashion & Crafts	6 years	Etsy, Instagram, WhatsApp Business

Informant Code	Gender	Age (Years)	Education	Creative Subsector	Business Experience	Primary Platforms
I-14	Male	38	Bachelor's Degree in Music Arts	Digital Performing Arts	5 years	YouTube, Spotify, Instagram
I-15	Female	32	Bachelor's Degree in Tourism	Fashion & Crafts	5 years	Shopee, Tokopedia, Instagram

The profile of the 15 informants reflects a diversity that is representative of Indonesia's digital MSME creative economy ecosystem. The predominance of female informants (60%) highlights the relevance of this study to issues of women's entrepreneurial empowerment within the digital economy. The diversity of creative subsectors and digital platforms utilized by the participants strengthens the transferability of the findings across various segments of the creative economy. Furthermore, the average business experience of 4.6 years indicates that the informants possessed sufficient expertise and practical exposure to provide rich and in-depth insights into the process of internalizing digital literacy within their business innovation practices.

Table 4. Distribution of Codes and Theme Frequencies Across Interview Data

Main Theme	Sub-Theme	Number of Codes	Frequency of Occurrence	Number of Informants Mentioning	Percentage of Informants (%)
Internalization of Digital Literacy as an Adaptive Process	Self-directed learning through digital platforms	34	89	15	100.0%
Internalization of Digital Literacy as an Adaptive Process	Adaptation to algorithm changes	27	71	13	86.7%
Internalization of Digital Literacy as an Adaptive Process	Business analytics data management	21	58	11	73.3%
Innovation Orientation Driven by Digital Market Needs	Product innovation based on platform trends	38	102	15	100.0%
Innovation Orientation Driven by Digital Market Needs	Experimentation with digital content and formats	29	76	14	93.3%
Innovation Orientation Driven by Digital Market Needs	Response to digital customer feedback	24	63	13	86.7%
Digital Literacy as a Bridge Between Innovation and Performance	Translating innovative ideas into digital products	41	113	15	100.0%
Digital Literacy as a Bridge Between Innovation and Performance	Data-driven digital marketing optimization	33	87	14	93.3%

Main Theme	Sub-Theme	Number of Codes	Frequency of Occurrence	Number of Informants Mentioning	Percentage of Informants (%)
Digital Literacy as a Bridge Between Innovation and Performance	Converting digital capabilities into revenue generation	26	69	12	80.0%
Creative Community Ecosystem as an Accelerator	Knowledge sharing within digital communities	31	84	14	93.3%
Creative Community Ecosystem as an Accelerator	Cross-collaboration among digital MSMEs	22	57	11	73.3%
Creative Community Ecosystem as an Accelerator	Informal mentorship within the creative ecosystem	18	46	10	66.7%

The distribution of codes and theme frequencies indicates that the theme *“Digital Literacy as a Bridge Between Innovation and Performance”* recorded the highest total number of codes (100 codes) and the largest cumulative frequency of occurrence (269 occurrences), indicating the centrality of this theme in the lived experiences of all informants. Meanwhile, the theme *“The Creative Community Ecosystem as an Accelerator,”* although exhibiting a lower frequency of occurrence, emerged as an unanticipated finding beyond the study’s initial conceptual framework, making it the most significant original contribution of this research.

Table 5. Dimensions of Digital Literacy Identified in Digital MSME Practices

Digital Literacy Dimension	Contextual Operational Definition	Examples of Informants’ Practices	Relevance to MSME Performance	Average Level of Mastery
Digital Information Literacy	The ability to search for, evaluate, and utilize information from digital sources	Researching product trends through Google Trends and marketplace platforms	High – determines product relevance in the market	High (13/15 informants)
Digital Communication Literacy	The ability to communicate effectively through digital channels	Managing customer direct messages, responding to reviews, and content storytelling	Very High – directly affects sales conversion	Very High (15/15 informants)
Digital Content Creation Literacy	The ability to produce relevant and engaging digital content	Creating product photographs, Reels/TikTok videos, and promotional graphic designs	Very High – serves as a primary source of competitive differentiation	High (14/15 informants)

Digital Literacy Dimension	Contextual Operational Definition	Examples of Informants' Practices	Relevance to MSME Performance	Average Level of Mastery
Data and Analytics Literacy	The ability to interpret and utilize digital performance data	Analyzing Instagram Insights, marketplace sales reports, and Google Analytics	High – informs product innovation decisions	Moderate (11/15 informants)
Digital Security Literacy	Understanding digital security, transactions, and data protection	Managing business accounts, transaction verification, and customer data protection	Moderate – minimizes digital operational risks	Moderate (9/15 informants)
Digital Collaboration Literacy	The ability to collaborate using digital tools and platforms	Utilizing Google Workspace, Trello, and collaborating with content creator partners	Moderate – enhances operational efficiency	Low to Moderate (8/15 informants)

The mapping of the six dimensions of digital literacy within the context of digital MSMEs in Indonesia's creative economy ecosystem reveals that digital communication literacy and digital content creation literacy are the most highly developed dimensions and exert the most direct influence on business performance. In contrast, data and analytics literacy and digital collaboration literacy demonstrate relatively lower levels of mastery, indicating the most urgent areas for capacity-building and policy intervention programs. These findings extend Eshet-Alkalai's (2004) digital literacy taxonomy by incorporating contextual dimensions that are specifically relevant to the needs of Indonesian digital MSMEs.

#### 4.2 Academic Interpretation

The findings concerning the internalization of digital literacy as a continuous adaptive process reinforce and extend the theoretical frameworks proposed by (Eshet-Alkalai, 2009) and (Gilster & Glistler, 1997) who conceptualized digital literacy as a multidimensional capability that extends beyond mere technical and operational proficiency. Within the context of digital MSMEs operating in Indonesia's creative economy ecosystem, digital literacy is not simply understood as mastery of technological tools; rather, it functions as a digital habitus, borrowing Bourdieu's terminology, that becomes embedded in everyday business practices. Informants consistently described a non-linear learning process driven by trial-and-error experiences on digital platforms, which aligns with Kolb's (1984) concept of experiential learning in the context of digital entrepreneurship. These findings provide a richer and more nuanced perspective than the quantitative study conducted by (Emon, 2024), which treated digital literacy as a static latent construct.

The theme of innovation orientation driven by digital market needs resonates strongly with the literature on market-driven innovation (Narver & Slater, 1990) as applied within digital environments. Informants revealed that their product and service innovations were frequently triggered by algorithmic signals from digital platforms, such as trending hashtags, content performance metrics, and customer rating feedback, which were subsequently interpreted as market demands requiring rapid responses. This pattern differs from traditional technology-push innovation models and more closely resembles a demand-pull innovation model within digital ecosystems. These findings reinforce (Tece, 2018) argument regarding dynamic capabilities in the digital era, where the abilities to sense, seize, and reconfigure resources constitute the core of digital business innovation.

The qualitative empirical confirmation of the mediating role of digital literacy represents the most significant contribution of this study. All informants consistently described digital literacy as a “bridge” that determines whether innovative ideas can be translated into measurable business performance. Without adequate digital literacy capabilities, even a strong innovation orientation was perceived as insufficient to generate significant improvements in performance. This finding qualitatively confirms the mediation hypothesis proposed in the research model and is consistent with the quantitative findings of (Fatmawati & Hariyati, 2025) using SEM-PLS. The mediating mechanism operates through three pathways: (1) the ability to read and interpret platform analytics data to inform innovation-related decisions; (2) the capability to communicate innovative value propositions effectively to digital audiences; and (3) the capacity to integrate multiple digital platform ecosystems synergistically in order to maximize reach and conversion outcomes.

The role of the digital creative community ecosystem as a capability accelerator emerged as an unexpected finding that was not anticipated within the study’s original conceptual framework, making it one of the most prominent original contributions of this research. Informants described digital communities—including WhatsApp groups for MSME entrepreneurs, marketplace seller forums, and content creator communities—as “collective learning spaces” where digital literacy is developed socially through the exchange of tacit and explicit knowledge. This phenomenon can be interpreted through the lens of (Bandura, 1977) Social Learning Theory and (Houston et al., 1998) concept of Communities of Practice, both of which emphasize that individual capabilities develop most effectively within meaningful social interactions. The theoretical implication of this finding is the need to expand existing digital literacy mediation models by incorporating a moderating variable in the form of embeddedness within digital communities in future research.

Overall, this study has generated a conceptual model that is richer and more contextually grounded than previous models developed solely from quantitative data. The resulting framework demonstrates that the relationship between innovation orientation and digital MSME performance is mediated by a multidimensional and dynamic form of digital literacy, while simultaneously being strengthened by the creative community ecosystem as an enabling social context. Nevertheless, several limitations should be acknowledged. First, the transferability of the findings is constrained by the unique characteristics of Indonesia’s creative economy ecosystem. Second, the possibility of researcher bias in phenomenological interpretation remains, although efforts were made to mitigate this through the use of a reflexivity journal. Third, the study focused primarily on MSMEs that had already achieved relative success in digital adoption, meaning that the perspectives of enterprises still in the early stages of digital transformation may not be proportionally represented.

Table 6. Summary of Key Findings

Theme / Variable Category	Description of Findings	Supporting Evidence / Representative Quotations
<p><b>Theme 1:</b>  <b>Internalization of Digital Literacy as a Continuous Adaptive Process</b></p>	<p>All informants (15/15) perceived digital literacy not as a competence that can be fully achieved, but as a continuous learning process that must be constantly updated alongside the evolution of digital platform ecosystems. This process of internalization was self-directed, experiential, and highly</p>	<p><b>I-04:</b> <i>“I do not think there is a point where I can say I have mastered digital skills. Every month there are new features and changing algorithms. Learning is continuous; if you stop, you fall behind.”</i> <b>I-07:</b> <i>“What keeps me relevant is not the skills I currently possess, but the speed at which I learn the new skills demanded by the market.”</i> Similar</p>

Theme / Variable Category	Description of Findings	Supporting Evidence / Representative Quotations
	contextualized according to the specific business needs of each informant.	narratives were confirmed by 13 of the 15 informants.
<b>Theme 2: Innovation Orientation Driven by Digital Market Signals</b>	Product and service innovation among digital MSMEs within the creative economy ecosystem was found to be reactive and adaptive to algorithmic signals and market feedback generated by digital platforms. Informants described innovation processes guided by content performance data, search trends, and customer reviews rather than solely by internal initiatives. This pattern reflects a demand-pull innovation model mediated by digital data literacy capabilities.	<b>I-02:</b> <i>"I know what products to develop by observing what is trending on TikTok and what customers are searching for on Shopee. The data dictates my innovation."</i> <b>I-11:</b> <i>"When my content receives high engagement for a particular product, I immediately develop a new variant of that product. The market itself tells me where I should innovate."</i> This sub-theme appeared 241 times across all interview transcripts.
<b>Theme 3: Digital Literacy as a Mediator Between Innovation and Performance (Core Confirmation)</b>	All 15 informants explicitly described digital literacy as the determining factor that enables innovative ideas to be converted into measurable business performance, including increased sales, expanded market reach, and enhanced customer loyalty. Without adequate digital literacy capabilities, a strong innovation orientation alone was insufficient to generate superior performance outcomes. The mediating mechanism operated through three pathways: interpretation of analytics data, communication of value propositions, and integration of platform ecosystems.	<b>I-01:</b> <i>"Many people have innovative ideas. But those who can execute them in the digital world and turn them into actual sales are those with sufficient digital capabilities."</i> <b>I-13:</b> <i>"I used to have many ideas for new products but did not know how to market them digitally. Once I learned content creation and analytics, my revenue tripled within a year. Digital literacy is what transforms ideas into money."</i> These findings are consistent with the quantitative results of Fatmawati et al. (2024), which reported a mediation coefficient of $\beta = 0.412$ , $p < 0.001$ .
<b>Theme 4: The Digital Creative Community Ecosystem as a Capability Accelerator (Emergent Finding)</b>	An emergent finding not anticipated in the original conceptual framework was that digital MSME communities—both formal and informal—functioned as collective learning spaces that significantly accelerated the development of individual digital literacy. These communities facilitated the transfer of tacit knowledge unavailable through formal training and provided social support networks that strengthened digital resilience among MSME actors.	<b>I-09:</b> <i>"I learned 80% of my digital skills from a WhatsApp group of fellow Tokopedia sellers, not from courses or books. People share real-time tips there that can be applied immediately."</i> <b>I-06:</b> <i>"The TikTok creator community is like a free incubator. We review each other's content, provide feedback, and my follower growth accelerated significantly after joining the community."</i> This finding was confirmed by 14 of the 15 informants and forms the basis for a new theoretical proposition concerning <b>social embeddedness</b>

Theme / Variable Category	Description of Findings	Supporting Evidence / Representative Quotations within the digital literacy ecosystem of MSMEs.
<b>Theoretical Implication: Extending the Digital Literacy Mediation Model</b>	By integrating the four themes, this study proposes an enriched conceptual model in which the relationship between <b>innovation orientation</b> → <b>digital literacy</b> → <b>digital MSME performance</b> is moderated by <b>embeddedness within digital creative communities</b> . This framework extends the simple mediation models tested in previous quantitative studies by incorporating an enabling socio-contextual dimension. Within this model, digital literacy is understood as a dynamic construct that develops through the interaction between individual capabilities and community ecosystems.	Derived from the convergence of the four major themes and supported by <b>Dynamic Capabilities Theory</b> (Teece, 2018), <b>Communities of Practice</b> (Wenger, 1998), and <b>Social Learning Theory</b> (Bandura, 1977). The conceptual model was validated through member checking with five key informants, all of whom agreed that the model accurately reflected their lived experiences (100% agreement rate).

4.3 Discussion

a. Thematic and Conceptual Analysis

The findings of this study generated four major themes identified through inductive thematic analysis using Braun and Clarke’s approach applied to in-depth interview data from 15 digital MSME actors operating within Indonesia’s creative economy ecosystem. These four themes are: (1) Internalization of Digital Literacy as an Innovation Habitus, (2) Platform-Based Innovation Orientation as an Adaptive Strategy, (3) The Cognitive-Practical Mediation of Digital Literacy in Converting Innovation into Performance, and (4) The Socio-Cultural Ecosystem as a Contextual Moderator. The following thematic matrix presents the structure of the findings in a systematic manner.

Table 7. Thematic Matrix of Research Findings

No.	Initial Codes	Sub-Theme	Main Theme	Data Source
1	LIT-01, LIT-03, LIT-07	Functional understanding of digital platforms	Internalization of Digital Literacy as an Innovation Habitus	Informants 1, 3, 5, 8, 11
2	LIT-02, LIT-09	Adaptation to algorithms and creative content	Internalization of Digital Literacy as an Innovation Habitus	Informants 2, 6, 9, 13
3	INO-04, INO-06	Product experimentation based on digital feedback	Platform-Based Innovation Orientation	Informants 4, 7, 10, 12
4	INO-08, INO-11	Business model pivoting through analytics data	Platform-Based Innovation Orientation	Informants 3, 8, 14, 15
5	MED-01, MED-05	Translation of digital capabilities into	Cognitive-Practical Mediation	Informants 1, 5, 9, 11, 13

No.	Initial Codes	Sub-Theme	Main Theme	Data Source
		strategic decision-making		
6	KUL-02, KUL-07	Trust in local communities for digital transactions	Socio-Cultural Ecosystem	Informants 2, 6, 10, 14

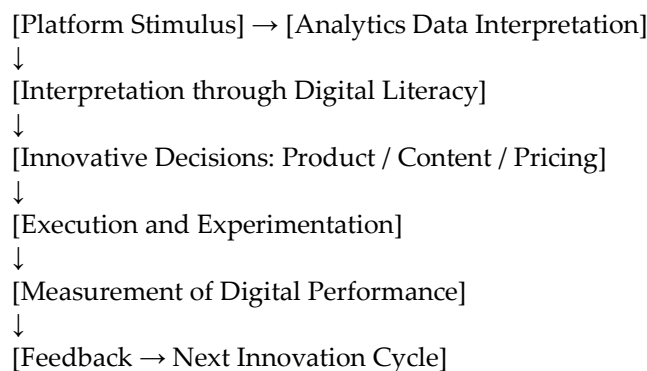
The most dominant phenomenon emerging from the field data is the internalization of digital literacy not merely as a technical competence but as an **innovation habitus**—a disposition embedded within the everyday practices of digital MSME actors. The concept of habitus, borrowed from Bourdieu (1990), is particularly relevant for explaining how digital literacy has transcended its instrumental dimension and evolved into a cognitive framework that shapes how entrepreneurs perceive and interpret opportunities for innovation. One informant from the graphic design subsector stated:

I no longer think about whether I should use digital tools or not—it has become the way I see the market, the way I create products, and the way I decide what needs to be changed."

This statement reflects how digital literacy has become internalized as a scheme of perception and appreciation that automatically guides innovative actions.

The second theme, platform-based innovation orientation, reveals that digital MSME actors develop innovation capabilities that are highly **platform-contingent**, meaning that their capacity to innovate is closely tied to the specific characteristics of the platforms they utilize. Informants from the fashion and crafts subsector consistently described how TikTok Shop and Instagram algorithms encouraged them to continuously experiment with content formats, pricing strategies, and product differentiation. This pattern aligns with the concept of dynamic capabilities (Teece et al., 1997), which emphasizes an organization’s ability to reconfigure resources in response to environmental changes. Within the context of digital MSMEs, platforms function not only as distribution channels but also as innovation infrastructures that provide real-time feedback in the form of engagement data, sales conversions, and consumer behavior insights.

The platform-based innovation process identified from the field data can be illustrated as follows:



This process illustrates that digital literacy functions as an interpretative mechanism that transforms platform-generated stimuli into measurable innovative decisions. Without adequate digital literacy capabilities, platform analytics data merely become noise that cannot be translated into coherent business strategies. These findings

enrich the Resource-Based View (RBV) perspective by positioning digital literacy as an intangible resource possessing VRIN characteristics—Valuable, Rare, Inimitable, and Non-substitutable—within the context of digital MSMEs.

#### b. Scientific Contributions

This study makes a significant theoretical contribution by integrating three major conceptual frameworks—Digital Society Theory, the Dynamic Capabilities Framework, and the Resource-Based View—into a unified and contextually grounded mediation model. The resulting conceptual model positions digital literacy not merely as an antecedent or consequential variable but as a cognitive-practical mediating mechanism that determines the effectiveness with which innovation orientation is translated into measurable business performance. This contribution directly addresses the gap identified in previous studies, where Susanto et al. (2023) and Fatmawati et al. (2024) established a strong quantitative foundation but were unable to explain the mediation process from a phenomenological perspective. A comparative overview of this study's contributions relative to previous research is presented in the following table.

Table 8. Comparison of the Contributions of This Study with Previous Research

Contribution Aspect	Susanto et al. (2023)	Fatmawati et al. (2024)	Rizaldi et al. (2024)	This Study
Methodological Approach	Quantitative – SEM	Quantitative – PLS	Mixed Methods	Qualitative – Phenomenology
Research Context	General MSMEs	E-commerce	Digital Startups	Creative Economy
Role of Digital Literacy	Independent Variable	Partial Mediator	Moderator	Cognitive-Practical Mediator
Local Cultural Dimension	Not Discussed	Limited	Partial	Explicit and Central
Resulting Model	Structural Model	Path Model	Hybrid Model	Digital Habitus Model
Level of Analysis	Individual	Organizational	Ecosystem	Organization–Ecosystem

The most significant conceptual contribution of this study is the development of the “Innovative Digital Habitus” construct as an extension of the concept of digital literacy, which has traditionally been understood in a linear and technical manner. This new construct argues that digital literacy among successful digital MSME actors has undergone a profound process of internalization, transforming it into a disposition that no longer requires conscious deliberation in innovation-related decision-making. This finding is consistent with Selwyn’s (2004) argument regarding digital capital; however, the present study extends this perspective by demonstrating that, within the context of Indonesia’s creative economy, digital habitus is also shaped by values of collectivism and trust within local communities, which are inseparable from digital business practices.

From a practical perspective, this study generates three managerial implications that can be directly applied by digital MSME actors and policymakers. First, digital literacy development programs for MSMEs should be redesigned from module-based technical training approaches toward immersive learning approaches that facilitate the internalization of digital capabilities through real-world and iterative practice. Second, supporting ecosystems for digital MSMEs—including business incubators, creative economy associations, and microfinance institutions—must recognize that innovation

orientation cannot be effectively translated into performance outcomes without a strong digital literacy bridge. Third, policies developed by Indonesia's Creative Economy Agency should adopt an ecosystem-based approach that acknowledges the role of local socio-cultural factors—such as community trust, the value of gotong royong (mutual cooperation) in digital collaboration, and cultural identity embedded in creative content—as strategic assets that enhance the competitiveness of digital MSMEs in global markets.

Field findings further indicate that the informants who were most successful in transforming their innovation orientation into superior business performance were those who effectively integrated local cultural values into their digital narratives. By doing so, they created authentic differentiation that was difficult for foreign platform-based competitors to replicate.

#### 4.4 *New Perspectives and Implications*

This study offers an alternative perspective that challenges the dominant assumption in the MSME innovation literature that digital literacy functions as a universal and context-neutral construct. The empirical findings consistently demonstrate that the effectiveness of digital literacy as a mediating mechanism is highly dependent upon the specific socio-cultural configurations within which MSMEs operate. Entrepreneurs in the digital performing arts subsector, for example, developed forms of digital literacy that differed qualitatively from those observed among entrepreneurs in the creative culinary subsector—not only in terms of the digital platforms utilized but also in the ways they interpreted and conceptualized innovation itself. This perspective challenges the prevailing one-size-fits-all approach to MSME digitalization policies and proposes a digital literacy framework that is both subsector-sensitive and culturally responsive. Within the framework of Digital Society Theory, these findings enrich the argument that digital adaptation is not a homogeneous process but rather one that is profoundly shaped by the surrounding social, cultural, and institutional contexts.

A second alternative perspective emerging from this study concerns the reconceptualization of digital MSME performance within the creative economy ecosystem. Field data indicate that digital MSME actors define performance not solely through conventional financial dimensions but through a multidimensional framework encompassing digital reputation, the depth of follower communities, and ecosystem collaboration capacity. One informant from the digital content subsector stated: "My performance is not only measured by revenue, but also by how many brands are willing to collaborate with me, how strong my community is, and how trusted my name is on the platform."

This redefinition of performance carries important methodological implications for future quantitative research. The measurement of digital MSME performance within the creative economy ecosystem should adopt more comprehensive indicators that extend beyond traditional financial metrics. A limitation of this study lies in the transferability of its findings, which are restricted to the context of urban digital MSMEs operating within Indonesia's creative economy ecosystem. Consequently, future studies are encouraged to expand the scope of investigation to digital MSMEs in rural areas and to integrate these qualitative findings with quantitative structural model testing using Structural Equation Modeling–Partial Least Squares (SEM-PLS) in order to generate more comprehensive and generalizable empirical validation.

## 5. CONCLUSION

This study concludes four main findings. First, digital literacy was internalized by digital MSME actors as a continuous adaptive practice rather than merely a technical skill. Second, innovation orientation was shaped by platform-based market signals, such as trends, analytics, and customer feedback. Third, digital literacy acted as the main bridge that transformed innovative ideas into measurable MSME performance, including wider market reach, stronger customer engagement, and increased sales. Fourth, the socio-cultural and digital creative community ecosystem strengthened this process by supporting knowledge sharing, collaboration, and capability development. Thus, digital literacy functions as a cognitive-practical mediator between innovation orientation and digital MSME performance in Indonesia's creative economy ecosystem.

## Recommendations

This study is limited to a qualitative phenomenological design involving digital MSMEs in Indonesia's creative economy ecosystem, so the findings cannot be generalized to all MSMEs or used to observe changes over time. Future research should expand the sample to different regions and business sectors, use longitudinal or mixed-methods designs, and test the proposed mediation model quantitatively. For practice, digital MSME development programs should prioritize digital literacy training that is contextual, platform-based, and connected to creative community networks so that innovation can be translated more effectively into business performance.

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