



# Developing a digital marketing–driven hybrid entrepreneurship model for wood waste craft MSMEs

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## ABSTRACT

This study aims to design a hybrid entrepreneurship model based on digital marketing tailored to the needs of small-scale woodcraft MSMEs in rural areas. A mixed-methods approach was employed through a survey of 75 respondents and Focus Group Discussions (FGDs). The findings indicate that while entrepreneurs exhibit strong motivation and basic managerial capabilities, their digital literacy and use of online marketing channels remain limited. This reveals a readiness gap between intention and digital competence. In response, a conceptual model was formulated at Technology Readiness Level (TRL) 2, comprising four components: internal entrepreneurial readiness, integration of hybrid marketing channels (offline and online), mechanisms for training and mentoring, and strategic outcomes in the form of increased literacy and competitiveness. The model was developed modularly and grounded in field data, offering a framework for targeted interventions in training programs and policy design for digitally empowered MSME development.

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## 1. INTRODUCTION

The development of digital technology has transformed patterns of interaction between producers and consumers in economic activities, including within the micro, small, and medium enterprise (MSME) sector (Mulyani F., 2022). One sector that has been significantly affected is MSMEs engaged in wood waste–based handicrafts, which possess high economic and social value potential yet continue to face substantial constraints in marketing and digital transformation (Huda A.; Setyaningsih D., 2023). The primary challenge lies in low levels of digital literacy and the limited capacity of MSME actors to access and effectively utilize information technology–based marketing channels. These limitations contribute to restricted market reach, stagnation in business growth, and weakened competitiveness.

Research conducted by Anwar D. (2022) found that most handicraft entrepreneurs in Central Java demonstrate strong motivation to innovate; however, insufficient digital literacy compels them to rely heavily on traditional marketing methods. These constraints are not solely attributable to a lack of training, but also to the absence of structured mentoring systems and limited access to digital platforms. Meanwhile, a study by Putri R.; Dewi F. (2023) indicates that digital marketing training can enhance understanding of social media and e-commerce usage, yet its impact tends to be short-term and does not sufficiently integrate sustainable strategies aligned with the local context of MSME actors.

Based on this review, it is evident that conventional technical approaches are insufficient to address the complexity of digital adaptation challenges faced by MSMEs (Rasjid H.; Arifin Z., 2022). Most existing interventions remain partial in nature and fail to encompass strategic dimensions, such as the design of business models that systematically integrate offline and online channels. In this context, the concept of hybrid entrepreneurship becomes increasingly relevant, referring to an entrepreneurial strategy that combines conventional (offline) activities with digital-based marketing innovations (online), as articulated by Aini I.; Nurmala N. (2021) and Utami S.; Setiawan H. (2022).

This study seeks to address this gap by developing a conceptual hybrid entrepreneurship model tailored to MSME actors engaged in wood waste handicrafts. The model is constructed based on primary data obtained through surveys and focus group discussions (FGDs), reflecting actual needs, capacities, and constraints encountered in the field. Adopting a technology readiness level (TRL 2)–based approach, the model is expected to serve as a foundational framework for the development of more strategic and sustainable training programs and empowerment policies. The objective of this research is to formulate an initial model capable of bridging the digital literacy gap and expanding marketing channels for craft-based MSMEs.

Unlike prior studies that primarily emphasize digital marketing adoption as a technical intervention, this study introduces a readiness-based hybrid entrepreneurship model that explicitly accounts for asymmetric readiness among MSME actors. The novelty of this research lies in its integration of behavioral readiness, managerial capacity, and ecosystem support into a staged digital transformation framework. By positioning digital marketing as a targeted intervention rather than an initial prerequisite, the proposed model offers a contextualized and scalable approach for craft-based MSMEs operating in rural settings.

## 2. RESEARCH METHOD

This study employed a sequential exploratory mixed-methods design. Quantitative survey data were first collected to map the readiness levels of MSME actors toward hybrid entrepreneurship adoption. Subsequently, qualitative Focus Group Discussions (FGDs) were conducted to deepen the interpretation of survey findings and to contextualize the formulation of the conceptual model.

### Literature Review

The literature review was conducted around three primary focal areas: (1) the concept of hybrid entrepreneurship as an integrative strategy combining offline and digital entrepreneurial activities (Demir et al., 2020); (2) the implementation of digital marketing in MSME empowerment, particularly within the handicraft sector (Nurhasanah et al., 2023); and (3) the use of survey methods and Focus Group Discussions (FGDs) within participatory research approaches. The reviewed literature served as the foundation for developing the questionnaire indicators, defining the analytical dimensions, and designing the conceptual model framework (O. Nyumba et al., 2018).

### Research Location and Period

This study was conducted in Karang Anyar Village, Jati Agung Subdistrict, South Lampung Regency, Indonesia. The research was carried out from June to November 2025. The site was selected due to the presence of an active artisan community and the early formation of wood waste–based craft business groups.

### Research Targets and Subjects

The primary target population comprised female MSME actors engaged in wood waste handicrafts with a minimum of one year of active business experience. A total of 75 respondents were selected for the quantitative survey using purposive sampling. The qualitative participants included village facilitators, group leaders, and senior artisans who participated in the FGDs.

### Instruments and Data Collection Procedures

The survey instrument consisted of a 20-item questionnaire using a five-point Likert scale (1–5) designed to measure five dimensions: a) Perceptions of hybrid entrepreneurship; b) Utilization of digital marketing; c) Business management; d) Social support; e) product value chain.

Content validity was assessed through expert judgment, and reliability testing using Cronbach's Alpha (Jarupunphol et al., 2024). Qualitative data were collected through FGDs guided by a thematic protocol aimed at exploring MSME actors' perceptions, constraints, and expectations regarding digital transformation.

### Data Analysis Techniques

Quantitative data were analyzed descriptively using mean scores and standard deviations. The distribution of scores across dimensions and individual items was used to map the digital readiness profile of MSME actors (Mishra et al., 2019). FGD data were analyzed using a thematic analysis approach to extract key issues relevant to the research objectives (Shahhosseini & Hamzehgardeshi, 2014). Survey and FGD findings were triangulated to enhance the internal validity of the proposed model.

### Conceptual Model Development

The conceptual model was developed within the limited scope of micro-scale entrepreneurial activities based on wood waste handicrafts in a local community context. The primary focus was on integrating digital marketing into existing business practices through a hybrid approach. Model development followed four stages: a) Identification of needs and constraints through surveys and FGDs; b) Mapping of internal and external factors; c) Formulation of model component blocks; d) Assembly of a TRL 2 system model based on five key dimensions.

To ensure flexibility and adaptability, the main model was decomposed into three conceptual submodels: a) Actor Submodel, encompassing internal capacities of MSME actors (motivation, digital literacy, and business experience); b) Hybrid Channel Submodel, integrating offline marketing strategies (local sales, exhibitions) and online channels (social media and marketplaces); c) Support Submodel, comprising digital marketing training, business mentoring, and the formation of communities and digital partners.

The final design is visualized in the form of a systemic flowchart (see Figure 1) and serves as the basis for the development of subsequent intervention stages.

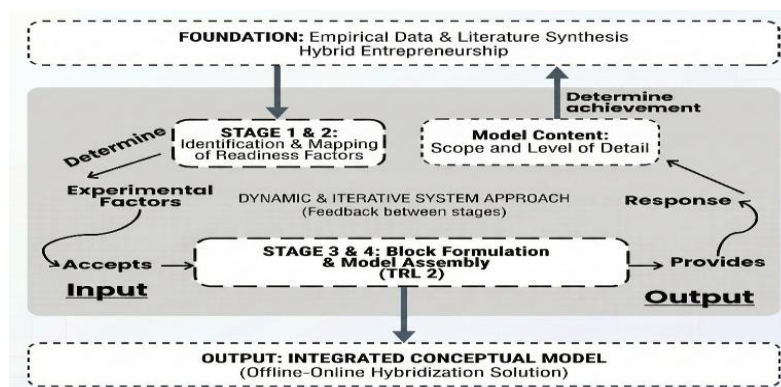


Figure 1. Model development framework

The proposed hybrid entrepreneurship model is positioned at Technology Readiness Level (TRL) 2, as it represents a conceptual formulation grounded in empirical field data without undergoing pilot implementation or operational validation. At this stage, the model has been theoretically validated through triangulated survey and FGD findings, while practical testing and performance evaluation are intentionally reserved for subsequent research phases (TRL 3–4).

## 3. RESULTS AND DISCUSSIONS

### MSME Actors' Readiness for Hybrid Entrepreneurship

The survey results involving 75 MSME actors engaged in wood waste handicrafts in Karang Anyar, South Lampung, indicate that the level of readiness to adopt a hybrid entrepreneurship approach varies considerably across the five measured dimensions. The dimension with the highest mean score is Perception of Hybrid Entrepreneurship ( $M = 3.39$ ),

reflecting respondents' awareness of the importance of combining offline and online marketing strategies to sustain business operations in the digital era.

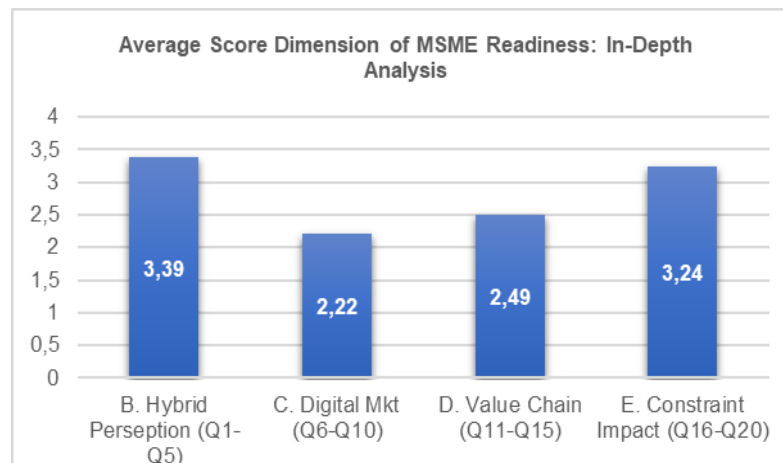


Figure 2. Mean scores by dimension

Furthermore, the Business Management dimension ( $M = 3.27$ ) suggests that most respondents possess prior experience and a basic understanding of conventional business management practices, including simple financial record-keeping, inventory management, and interactions with local customers. The Social Support dimension also demonstrates a relatively strong score ( $M = 3.14$ ), indicating that community networks and family support play a crucial role in maintaining business continuity.

In contrast, a markedly different result is observed in the Digital Marketing dimension, which records the lowest mean score ( $M = 2.22$ ). This finding highlights the limited capacity of MSME actors to utilize digital technologies for promotion, distribution, and online customer engagement. The disparity is further evident in the distribution of item-level scores related to basic digital literacy, such as the use of social media platforms and online marketplaces.

These findings indicate the presence of asymmetric readiness, characterized by an imbalance between behavioral readiness and technical readiness. While MSME actors exhibit positive perceptions and strong motivation toward innovation, these attributes are not yet supported by sufficient digital competencies to effectively implement hybrid strategies. This phenomenon is not merely a reflection of inadequate training, but is also associated with limited digital infrastructure, restricted access to business mentoring, and the absence of a local ecosystem that supports small business digitalization.

This condition is consistent with the findings of Sari S. (2020), who report that MSME actors in the informal sector tend to demonstrate high adaptive motivation but remain constrained by technological and social barriers. It is further reinforced by Yuliani I.; Nugraha T. (2022) innovation adoption theory, which posits that adoption processes are influenced not only by perceived innovation benefits, but also by individual readiness and systemic support. In this context, the adoption process remains largely at the *persuasion* stage, as MSME actors have not yet developed sufficient self-efficacy to integrate digital technologies into their business systems.

Therefore, it can be concluded that MSME actors' readiness for hybrid entrepreneurship is not yet holistic. While motivational and managerial aspects are relatively well established, there remains a critical need for systemic intervention strategies aimed at strengthening digital literacy and the practical utilization of online channels. Such interventions are likely to be effective only if they are designed in accordance with local contexts, supported by community-based mechanisms, and implemented in a sustainable manner (Wahyuni S.; Ramadhan H., 2023).

### Barriers to Digital Marketing Implementation in Craft-Based MSMEs

The analysis of survey items related to digital marketing reveals that MSME actors face a range of structural and cognitive barriers in implementing digital marketing strategies. The six

indicators with the lowest scores are concentrated in technical aspects, such as the ability to create promotional content, the use of social media for business purposes, and the management of marketplace accounts. Scores for these items range from 1.93 to 2.18, indicating that respondents have not yet mastered the basic digital skills required for the effective practice of hybrid entrepreneurship.

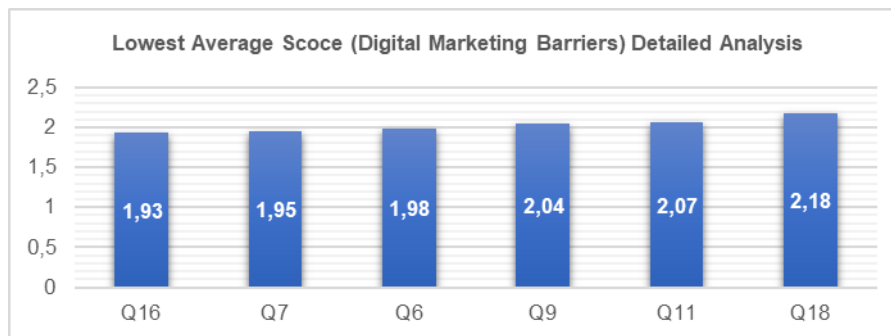


Figure 3. Lowest avg score

The main barriers identified can be classified into three categories: (1) limited digital literacy, (2) technological infrastructure and access constraints, and (3) the absence of sustained mentoring. Limited digital literacy is evident in respondents' minimal understanding of the functions of digital applications and platforms. Most participants continue to use social media primarily for personal communication rather than as a strategic marketing channel. This condition reflects a low level of digital mindset, which is a critical component in the entrepreneurial transformation process (Wibowo S.; Nugroho F., 2022).

From an infrastructure perspective, respondents reported limited access to stable internet connections and the unavailability of supporting devices, such as laptops or smartphones with adequate capacity. These constraints are systemic in nature and cannot be effectively addressed through one-off training initiatives alone. During the FGDs, most participants indicated that although they were motivated to learn, the lack of follow-up training and access to mentors made it difficult to implement newly acquired knowledge in practice.

This phenomenon corroborates the findings of Andayani D.; Setiawan R. (2023), who observed that short-term, non-contextual digital marketing training programs tend to fail in fostering sustained adoption among MSME actors. Their study emphasizes the importance of practice-based training accompanied by mentoring schemes and community support. In the context of the present study, the absence of local institutional structures or mentoring systems further contributes to the slow pace of digital transition. From a psychosocial perspective, some MSME actors expressed a lack of confidence in showcasing their products in digital public spaces, driven by concerns that product quality may not meet online market standards. This indicates that digital barriers extend beyond technical skills and also encompass self-perception, psychological readiness, and expectations regarding market responses (Ardiani B.; Lestari K., 2023).

Theoretically, these findings illustrate a condition of *digital inertia*, defined as stagnation in technology adoption not due to resistance to innovation, but rather to the absence of adequate capacity and systemic support (Haskamp et al., 2021). Within the context of craft-based MSMEs, digital inertia constitutes a major obstacle to the transition toward effective hybrid entrepreneurship practices. Considering the overall findings, it can be concluded that barriers to digital marketing implementation are multidimensional in nature. Addressing these challenges requires interventions that extend beyond technical training to include social and structural dimensions. Training programs should therefore be practice-oriented, staged, and complemented by mentoring systems that are integrated with community networks and supporting digital platforms.

### Integration of Findings and Implications for Model Design

The synthesis of quantitative and qualitative data indicates that hybrid entrepreneurship perception, social support, and business management constitute three key dimensions that can

serve as entry points for the development of hybrid entrepreneurship strategies. These dimensions make a significant contribution to shaping MSME actors' readiness to adopt changes in entrepreneurial practices.

Conversely, digital marketing, identified as the dimension with the lowest mean score, is not marginalized but rather positioned as a primary target for capacity-building interventions. Community support and the availability of continuous training function as reinforcing mechanisms that bridge motivational readiness and technical readiness.

Each component of the proposed hybrid entrepreneurship model was directly derived from empirical readiness dimensions. High mean scores in hybrid entrepreneurship perception and business management informed the foundational readiness block, while low digital marketing scores justified the prioritization of training and mentoring interventions. Social support findings shaped the community-based support mechanism embedded within the model.

The model developed in this study is structured according to the relative contribution weights of each dimension, as illustrated in Figure 4.

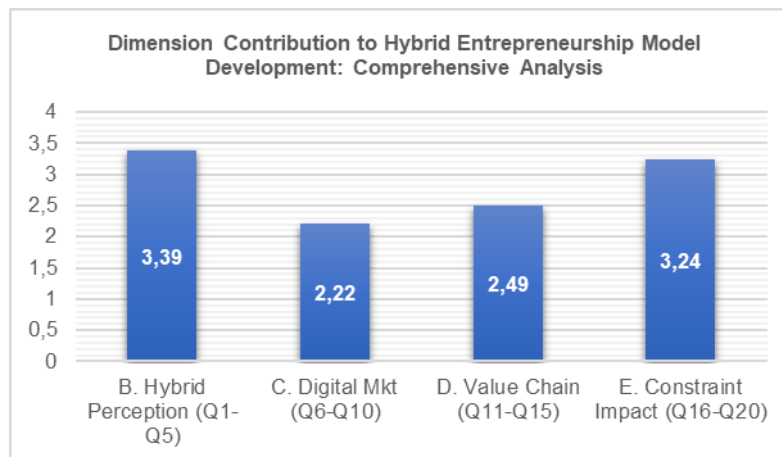


Figure 4. Dimension contribution to hybrid entrepreneurship model development

Interpretation: The Hybrid Perception and Constraint Impact dimensions provide the highest score contributions, indicating their crucial role in the model, while Digital Mkt and Value Chain require more attention. The mean scores across dimensions demonstrate a direct influence on the readiness-based model development framework. The hybrid entrepreneurship perception dimension serves as the backbone of the model's foundational structure, while digital marketing is designated as the focal point for subsequent, targeted interventions.

#### Formulation of a Digital Marketing-Based Hybrid Entrepreneurship Model

Based on the triangulation of survey and FGD data, a digital marketing-based hybrid entrepreneurship conceptual model was formulated to represent the integration of MSME actors' readiness, hybrid marketing channels (offline and online), and intervention mechanisms grounded in training and mentoring. The model was developed at Technology Readiness Level (TRL) 2, corresponding to the stage of conceptual formulation and initial validation.

The model comprises four main components: (1) the foundation of MSME actors' readiness, (2) hybrid channels (online and offline), (3) intervention mechanisms (training and mentoring), and (4) outcomes in the form of enhanced MSME capacity and competitiveness (see Figure 5). Each component was designed based on an analysis of readiness dimensions and implementation barriers, and was contextualized within the social and digital environments of the business actors.

At the first stage, the foundation of MSME actors' readiness encompasses business management capabilities, product quality, conventional marketing strategies, and technological readiness. Within this component, digital literacy and digital marketing competencies are identified as critical weaknesses that require assessment in order to determine appropriate interventions.

The second stage involves the activation of hybrid channels, which are divided into online channels (social media, marketplaces, and digital content) and offline channels (exhibitions, local partnerships, and community-based marketing). The model emphasizes flexibility in integrating these channels in accordance with the capacities and readiness levels of MSME actors.

The third stage consists of intervention mechanisms, including practice-based training modules (hands-on learning), digital clinics (mentoring sessions), monitoring and evaluation systems, and the strengthening of community-based peer learning. These interventions are designed to be progressive and adaptive, responding to the outcomes of ongoing digital readiness assessments.

The outcomes of the model encompass four key aspects: enhanced digital literacy, gradual adoption of hybrid marketing channels, improved product competitiveness (in terms of market reach and branding), and the establishment of sustainable MSME institutional structures. The model is modular in nature and remains open to further empirical testing during the implementation phase (TRL 3).

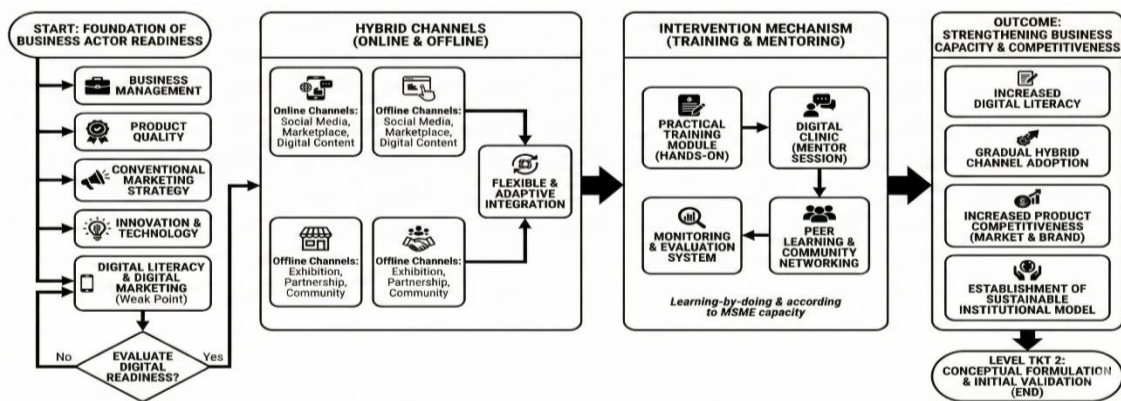


Figure 5. Conceptual hybrid entrepreneurship model

This model was developed through the integration of quantitative and qualitative findings. Each component is grounded in relevant readiness dimensions and arranged in a logical flow from internal foundations to external outcomes. Practically, the model contributes a blueprint for designing ecosystem-based training and mentoring programs for MSMEs within a hybrid digital environment. Theoretically, it extends the understanding of hybrid entrepreneurship within the context of the regional handicraft sector.

## Discussions

Overall, the findings of this study demonstrate that MSME actors engaged in wood waste handicraft production in Karang Anyar exhibit a condition of asymmetric readiness in adopting hybrid entrepreneurship practices. While perceptual and motivational dimensions display relatively high levels of readiness, technical readiness particularly in relation to digital marketing remains substantially underdeveloped. This pattern suggests that the primary constraint in hybrid entrepreneurship adoption is not resistance to innovation, but rather a structural mismatch between cognitive readiness and operational capability (Ferreira, 2020).

Theoretically, this study extends hybrid entrepreneurship literature by introducing readiness asymmetry as a central explanatory mechanism for partial digital adoption among MSMEs. Rather than conceptualizing hybrid entrepreneurship as a binary outcome, the proposed model frames it as a staged and ecosystem-dependent process, emphasizing the interaction between perception, operational capability, and institutional support.

In this regard, the strong performance of the hybrid entrepreneurship perception dimension reflects an increasing awareness among MSME actors of the strategic importance of integrating online and offline marketing channels to enhance business sustainability in the digital era. This observation is consistent with prior studies indicating that MSMEs increasingly regard digital

technologies as complementary mechanisms that reinforce, rather than replace, conventional business practices (Fauzi & Sheng, 2022). Nevertheless, such favorable perceptions have not yet been translated into effective operational practices, resulting in hybrid entrepreneurship remaining largely conceptual and insufficiently embedded in routine business activities.

At the same time, the relatively high scores observed in the business management and social support dimensions suggest that MSME actors possess practical experience in conventional business operations and benefit from strong family and community networks. This form of social capital plays a pivotal role in sustaining micro-enterprises, particularly within craft-based and community-oriented sectors (Wijayanti M.; Gunawan D., 2023). However, despite contributing to organizational stability, these strengths tend to reinforce established business routines and do not, in isolation, facilitate meaningful digital transformation in the absence of structured capacity-building initiatives.

By contrast, the digital marketing dimension records the lowest mean score, clearly indicating that limited digital capability constitutes the most critical barrier to the transition toward hybrid entrepreneurship. Low proficiency in the strategic use of social media, digital content development, and marketplace management suggests that digital technologies are still perceived as peripheral tools rather than as integral components of value creation strategies. This finding corroborates earlier research showing that digital adoption among MSMEs is frequently partial, episodic, and unsustainable when not supported by continuous learning and mentoring mechanisms (Indrawati N.; Mulyani S., 2022)

Further analysis at the indicator level reveals that digital constraints are inherently multidimensional, encompassing limited digital literacy, infrastructural limitations, the absence of sustained mentoring, and psychological barriers such as low self-confidence in presenting products within digital marketplaces. These conditions exemplify the phenomenon of digital inertia, wherein stagnation in technology adoption arises not from deliberate resistance but from inadequate ecosystem support that constrains learning and adaptive capacity (Haskamp et al., 2021). Consequently, short-term and fragmented digital training initiatives are unlikely to generate durable behavioral change.

The integration of quantitative survey findings with qualitative insights from FGDs provides a robust empirical foundation for the proposed hybrid entrepreneurship model. The dimension contribution analysis indicates that hybrid entrepreneurship perception and constraint impact exert a dominant influence on overall readiness, whereas digital marketing and value chain integration represent strategic leverage points requiring prioritized intervention. This configuration reinforces the argument that MSME digital transformation should be implemented in a staged and readiness-driven manner, rather than through uniform, top-down approaches (Alam et al., 2022).

From a model design perspective, positioning digital marketing as a primary intervention focus, rather than as an initial prerequisite, enables MSME actors to capitalize on existing managerial and social strengths while gradually developing the technical competencies required for effective hybridization. The emphasis on practice-based training, digital mentoring clinics, and community-based peer learning aligns with experiential learning principles, which emphasize learning-by-doing as a key mechanism for sustainable capability development (Ziółkowska, 2021).

At the theoretical level, this study contributes to the hybrid entrepreneurship literature by highlighting the importance of readiness asymmetry and ecosystem dependency within the context of craft-based MSMEs. Unlike technology-centric frameworks, the proposed model foregrounds the dynamic interaction between perception, capacity, and institutional support as the core mechanism driving entrepreneurial transformation. Positioned at Technology Readiness Level (TRL) 2, the model constitutes a conceptually validated framework that is ready to be advanced through empirical implementation and iterative testing in subsequent research phases (Lafortune & Ubaldi, 2018).

This discussion underscores that the principal constraint in hybrid entrepreneurship adoption among craft-based MSMEs lies not in the willingness to change, but in limited digital capacity reinforced by structural and psychosocial barriers. Addressing this challenge requires ecosystem-oriented, progressive, and context-sensitive interventions that integrate training, mentoring, and community support in a sustained and coherent manner. The hybrid

entrepreneurship model developed in this study offers a theoretically grounded and practically relevant pathway for facilitating MSME transformation in comparable socio-economic contexts.

#### 4. CONCLUSION

This study produces a digital marketing-based hybrid entrepreneurship conceptual model developed through an analysis of MSME actors' readiness, actual field-level challenges, and opportunities for integrating online and offline marketing channels. Quantitative findings indicate that MSME actors exhibit relatively high levels of readiness in terms of entrepreneurial perception and business management. However, the low scores observed in the digital marketing dimension reveal a significant competency gap that requires systematic intervention.

These findings are reinforced by FGD results, which highlight limitations in digital infrastructure and the limited application of online marketing practices. Based on the synthesis of these findings, a TRL 2 conceptual model was formulated that integrates internal readiness foundations, practice-based training interventions, hybrid marketing channels, and community-based mentoring systems as key drivers of digital adoption.

The proposed model functions not only as a conceptual framework but also as a rational basis for subsequent implementation-level testing. The staged application of strategies through training modules, digital clinics, and peer mentoring is expected to bridge the readiness gap between motivation and technical skills. Theoretically, this model extends the discourse on hybrid entrepreneurship within the informal sector and contributes to the development of contextualized, digital transformation-oriented MSME empowerment system models.

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