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EMPOWERING COMMUNITY-BASED ENTREPRENEURSHIP IN INDONESIA THROUGH INCLUSIVE AND INNOVATIVE DIGITAL BUSINESS ECOSYSTEMS

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ABSTRACT
As digital transformation accelerates globally, ensuring its inclusivity for rural and semi-urban communities becomes increasingly urgent. This study explores how inclusive and innovative digital business ecosystems (DBEs) empower community-based entrepreneurship (CBE) in Indonesia. Employing a qualitative case study design, this research focused on three entrepreneurial clusters in semi-urban areas of West Java, selected for their proactive digital engagement and policy support. A total of 12 community entrepreneurs, 3 local policymakers, and 4 platform enablers were recruited through purposive sampling. Data collection involved semi-structured interviews and two focus group discussions (FGDs), with thematic analysis conducted using inductive coding. Results reveal that DBEs improve market access, strengthen digital literacy, and foster socio-economic resilience, but their effectiveness depends heavily on trust, local leadership, and institutional mediation. Trust emerged as a key enabler, with adoption being higher in communities where digital platforms were endorsed by trusted local actors. Institutional intermediaries such as digital literacy centers and municipal incubators also played a critical role in facilitating technology diffusion. However, readiness for digital transformation varied across clusters, depending on infrastructure, human capital, and socio-cultural cohesion. To assess this readiness, the study introduces the Community Digital Ecosystem Readiness (Co-DER) framework, which evaluates four key dimensions: human, institutional, technological, and socio-cultural. Findings suggest that empowering CBE through DBEs requires not just access to platforms but systemic, context-sensitive, and socially embedded interventions. The study contributes to inclusive digital transformation policies and proposes targeted capacity-building strategies to reduce digital inequality and promote grassroots innovation.

Key words: community-based entrepreneurship; Co-DER framework; social trust; digital readiness; institutional intermediaries

INTRODUCTION

The rapid advancement of digital technologies has opened transformative pathways for entrepreneurship, particularly in developing countries like Indonesia. Community-based entrepreneurship (CBE) is increasingly recognized as a viable model for inclusive, bottom-up economic empowerment. (Irawan et al., 2024). In Indonesia, this model is particularly relevant in the context of rural and semi-urban areas where traditional micro-enterprises dominate the local economy. Digital business ecosystems (DBEs), defined as networks integrating platforms, institutions, social actors, and technologies, offer promising avenues to expand market access, improve organizational learning, and foster resilience among grassroots enterprises (Miah et al., 2025; Sussan & Acs, 2017). National initiatives such as *Gerakan Nasional Literasi Digital* and *QRIS integration* by Bank Indonesia (2022) have sought to bridge digital divides. However, there is growing concern that digital transformation efforts remain concentrated in urban centers, leaving marginalized communities underserved (Lubis et al., 2023; Rauf et al., 2024).

Empirical studies reinforce the importance of interrelated variables—such as leadership quality, trust-based networks, and knowledge flows—in determining the success of DBEs in supporting CBE. (Ogbari et al., 2022). For instance, the presence of social capital and enabling institutions can significantly influence the adoption and sustained use of digital platforms by community actors, especially when embedded within a supportive entrepreneurial ecosystem (Alzamel, 2024; Stephens et al., 2022). Furthermore, ecosystem inclusiveness—indicated by collaborative governance, public-private partnerships, and cultural sensitivity—enhances innovation diffusion and sustainable value creation in community enterprises (Pujiastuti et al., 2025). These dynamics suggest that DBEs are not just infrastructure-based systems, but socio-technical environments shaped by behavioral, institutional, and cultural factors.

This study focuses on three entrepreneurial clusters in West Java, Indonesia—a province with a strong tradition of community entrepreneurship and proactive digital policy frameworks. West Java's regional government has launched various initiatives to support digital transformation in semi-urban communities, including training hubs, digital literacy campaigns, and incubation centers (Kemenkominfo, 2023). Unlike Jakarta or Bandung's metropolitan cores, the selected regions represent "middle-ground ecosystems" where policies are tested and

adapted amidst diverse socio-cultural realities. Their hybrid nature makes them ideal for exploring the intersection of digital inclusion and community-based enterprise development.

Despite increasing interest in digital entrepreneurship, three critical research gaps remain evident. First, scholarly attention has predominantly concentrated on urban startup ecosystems and the performance of tech-driven SMEs, often overlooking rural and community-rooted enterprises that depend on socio-cultural cohesion and local governance structures (Uduji et al., 2020). Second, analytical models assessing the multidimensional readiness of community-based enterprises to integrate with digital business ecosystems are still underdeveloped—especially in aspects of digital literacy, leadership adaptability, and social capital utilization (Ridho Rojabi, 2021). Third, informal institutions such as cooperatives, religious associations, and customary community networks continue to be underrepresented in ecosystem frameworks, despite their proven role in facilitating trust-based collaboration and participatory governance in Indonesia's peripheral regions (Mahmud, 2020). Addressing these omissions is essential to inform inclusive digital innovation policies and avoid exacerbating digital inequalities.

This study addresses the above challenges by proposing a novel analytical framework: the *Community Digital Ecosystem Readiness* (Co-DER) model. Co-DER integrates four dimensions—human capital, social trust, technological infrastructure, and institutional support—to assess the digital transformation capacity of community-based enterprises. The novelty lies in contextualizing DBEs through a community lens, moving beyond techno-centric or urban-biased paradigms. Practically, the study contributes to digital policy design and offers targeted recommendations for grassroots innovation and inclusion. Specifically, it explores: (1) how inclusive and innovative DBEs empower CBE in Indonesia; (2) what factors enable or hinder this empowerment; and (3) how readiness can be systematically assessed across community layers.

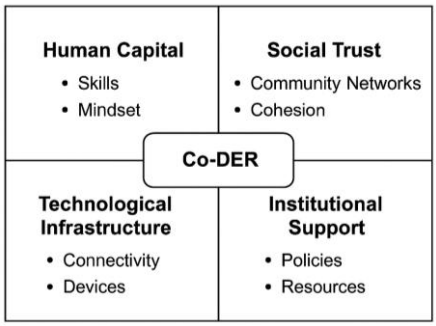

Figure 1. The Community Digital Ecosystem Readiness (Co-DER) Framework

METHOD

This study employed a qualitative case study approach to examine how inclusive and innovative digital business ecosystems (DBEs) empower community-based entrepreneurship (CBE) in Indonesia. The research focused on three semi-urban entrepreneurial clusters in West Java, selected based on their active digital engagement and institutional support. Using purposive sampling, 12 community entrepreneurs, 3 local policy actors, and 4 platform enablers were recruited to represent key stakeholder groups within the ecosystem. Participant profiles are summarized in Table 1.

Table 1. Profile of Research Participants

Participant Type	Number	Description
Community Entrepreneurs	12	Engaged in agriculture, crafts, etc.
Local Policy Actors	3	Village-level and municipal leaders
Platform Enablers	4	Digital literacy trainers, mentors

Primary data were collected through semi-structured interviews and two focus group discussions (FGDs), facilitating rich, interactive insights. Following data collection, thematic analysis was conducted using inductive coding to identify recurring patterns related to access, trust, intermediary roles, and digital readiness. To ensure methodological rigor, the study applied triangulation, member checking, and peer debriefing, in line with established standards of trustworthiness in qualitative inquiry (Aguilar-Solano, 2020). This approach is especially appropriate for capturing context-bound social processes in digital transformation, consistent with research traditions in public service and community innovation studies (Grunert, 2023; Surayya & Asrobi, 2020).

RESULTS AND DISCUSSION

This study identified three interrelated themes illustrating how inclusive and innovative digital business ecosystems (DBEs) influence community-based entrepreneurship (CBE): (1) Access and Digital Literacy, (2) Trust-Based and Institutional Collaboration, and (3) Contextual Digital Readiness. **First,** access to digital platforms has expanded market opportunities and visibility for community entrepreneurs. Participants reported utilizing e-commerce platforms, digital payments, and social media marketing to reach broader audiences.

However, digital literacy remains uneven—particularly among older or less tech-savvy individuals—posing a significant barrier. This aligns with studies indicating that MSMEs often struggle with infrastructure limitations, skill gaps, and constrained resources (Purnomo et al., 2024; Willem et al., 2024).

Second, trust and institutional collaboration emerged as key enablers. Informal networks—such as cooperatives, religious groups, and neighborhood associations—played a crucial role in disseminating digital knowledge. Trust in local platform providers and community leadership enhanced platform adoption, in line with research on governance and trust dynamics within digital ecosystems (Coskun-Setirek et al., 2024; Reiners, 2022).

Third, digital readiness varied notably across clusters. Some communities benefited from strong local leadership and robust infrastructure, while others experienced weak institutional support and unclear policy direction. These differences reflect broader SME challenges around strategy and capacity (Pingali et al., 2023) and resonate with findings that technology adoption is shaped by education, infrastructure access, and tool familiarity (Singharat & Kraiwanit, 2023). To address this variation, the study introduces the Community Digital Ecosystem Readiness (Co-DER) framework, which evaluates readiness across four dimensions: human capital, technological infrastructure, institutional capacity, and socio-cultural cohesion. This model reflects broader digital transformation literature advocating integrated development across social, technical, and institutional domains (Díaz-Arancibia et al., 2024; Michelotto & Joia, 2024). The application of the Co-DER framework across the three clusters is summarized in Table 2 below.

Table 2. Dimensions of Community Readiness Across Entrepreneurial Clusters

Cluster Name	Human Capital	Tech Infrastructure	Institutional Capacity	Socio-Cultural Cohesion
Cluster A	High	Moderate	Strong	High
Cluster B	Low	Low	Weak	Moderate
Cluster C	Moderate	High	Moderate	Strong

These findings emphasize that empowering CBE through DBEs requires alignment of systemic, social, and infrastructural factors. While digital platforms reduce market frictions—such as transaction costs and geographic constraints—these benefits are often unrealized without trust, digital literacy, and robust governance. The World Bank's narrative on digital transformation underscores that access and infrastructure are necessary but not sufficient—safeguards like institutional capacity, data governance, and trust mechanisms must accompany them for meaningful participation in the digital economy (World Bank, 2021). In our study, **Trust** emerged as a key enabler in community digital adoption. Entrepreneurs reported that engagement with platforms was most likely when endorsed by trusted actors such as village leaders or cooperative heads. This aligns with studies emphasizing the role of relational governance and institutional trust in platform adoption (Cantù et al., 2021). Further, recent research highlights how trust mediates the impact of perceived risks on digital service use, especially in vulnerable settings (Loke et al., 2025). Even where infrastructure was present, low trust led to stagnation—underscoring that digital readiness depends not only on access, but on social legitimacy.

Institutional intermediaries—such as training centers, municipal digital incubators, and community facilitators—emerged as vital enablers for integrating community-based entrepreneurship (CBE) into digital business ecosystems (DBEs). These intermediaries function as boundary-spanning organizations, bridging the gap between platform providers and grassroots users by delivering training, technical assistance, and mediation services, consistent with recent studies on ecosystem intermediation (Hernández-Chea et al., 2021). Their strategic role aligns with evidence that innovation intermediaries accelerate digital adoption by coordinating resources and fostering trust among ecosystem actors (Holland et al., 2024). In similar contexts of digital entrepreneurship, intermediaries—often operating as entrepreneurial support organizations—play a vital role in connecting small enterprises to funding, networks, and capacity-building services. Such functions have been documented in studies of organizational support networks (van Rijnsoever, 2022) and in digital transformation processes that leverage external intermediaries like technology centers and universities (Romero & Mammadov, 2024).

The proposed Co-DER framework offers a meaningful conceptual advance by situating readiness not as solely technological but as a composite of human capital, institutional capacity, infrastructural access, and socio-cultural cohesion. By embedding informal institutions (e.g. cooperatives, religious bodies, traditional networks) and social capital, Co-DER addresses critiques of techno-centric models that overlook community fabric (Zhou & Cen, 2024). In our empirical setting, communities with strong social cohesion and cooperative structures displayed more resilience in digital transitions—even with limited infrastructure—echoing patterns of social capital facilitating digital adaptation (Prayitno et al., 2022).

In summary, the empowerment of CBE through DBEs demands not just digital access, but context-sensitive, socially embedded, and institutionally anchored ecosystems

CONCLUSION

This study shows that empowering community-based entrepreneurship (CBE) through inclusive digital business ecosystems (DBEs) requires convergence across four readiness dimensions: human capital, institutional support, technological infrastructure, and socio-cultural cohesion. The proposed Co-DER framework offers a structured lens to assess this readiness beyond access, embedding trust, intermediaries, and informal institutions into the model. Findings confirm that even well-designed platforms fall short where trust is low, literacy limited, or institutional facilitation absent. Accordingly, policy should move beyond infrastructure to support local enablers, governance mechanisms, and participatory design. Future research may validate Co-DER quantitatively, explore its relevance in varied cultural settings, or refine it with feedback loops to track ecosystem evolution over time. Ultimately, the future of digital inclusion lies in empowering not just individuals, but the communities they belong to.

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