Navigating Digital Disruption: Key Entrepreneurial Leadership Competencies for Community Enterprises – A Scoping Review

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Abstract

In the digital era, community enterprises face mounting pressure to integrate technology while maintaining their social and economic missions. Entrepreneurial leadership competencies (ELCs) are critical to navigating digital disruption and fostering sustainable development in these organizations. This study employs a scoping review methodology, guided by the PRISMA 2020 framework, to identify key ELCs required for community enterprises operating in digitally dynamic environments. A total of 16 peer-reviewed studies published between 2015 and 2025 were systematically selected from five major databases: Scopus, Web of Science, EBSCOhost, ProQuest, and Google Scholar. Five thematic clusters of ELCs emerged from the synthesis: (1) visionary and strategic orientation, (2) digital literacy and platform management, (3) innovation and adaptability, (4) risk management and cybersecurity awareness, and (5) community and stakeholder engagement. While these competencies offer a comprehensive framework for digital leadership, notable gaps remain in cybersecurity training and AI adoption. The findings inform both practice and policy by highlighting essential leadership capacities that enable community enterprises to thrive in the digital economy while remaining socially grounded. This review contributes to the literature by offering an integrated, evidence-based competency framework tailored to community enterprises in the context of digital transformation.

Keywords: entrepreneurial leadership competencies, community enterprises, digital transformation, scoping review, digital disruption

1. Introduction

In an increasingly digitized global economy, community enterprises—organizations that blend economic and social objectives within a local context—are facing both unprecedented challenges and transformative opportunities. These enterprises, often embedded in rural or marginalized communities, serve as crucial vehicles for inclusive development, employment generation, and cultural preservation (UNCTAD, 2021). However, the acceleration of digital transformation has introduced disruptive forces that require new leadership paradigms and skillsets, particularly in small organizations that traditionally operate with limited resources (European Commission, 2020; Nambisan, 2017).

Entrepreneurial leadership, which integrates opportunity recognition, innovation, and strategic vision, has emerged as a critical factor in guiding enterprises through uncertainty and change (Gupta et al., 2004; Harrison et al., 2019). This form of leadership goes beyond conventional managerial functions by emphasizing agility, proactiveness, and value creation—traits especially relevant in navigating digital disruption (Wang & Yao, 2022; Schiuma & Carlucci, 2024). As community enterprises engage with digital technologies—ranging from e-commerce platforms and social media to artificial intelligence and data analytics—the competencies required of their leaders must also evolve.

While several studies have explored entrepreneurial competencies and digital leadership independently, there remains a lack of integrated frameworks specifically addressing the entrepreneurial leadership competencies (ELCs) essential for community enterprises operating in digital environments. This gap is particularly significant given that digital adoption in community enterprises is often uneven, constrained by skill shortages, infrastructure gaps, and cultural resistance (Lokuge & Duan, 2023; Van Laar et al., 2020). Without a clear understanding of which

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competencies matter most, efforts to train leaders or design support policies risk being ineffective or misaligned.

Although "digital disruption" is often associated with destabilizing change, this study adopts the term to reflect the real-world volatility and rapid technological shifts that community enterprises face. In this context, entrepreneurial leadership is not only about promoting transformation but also about resilience and adaptability in the face of digital uncertainties.

Therefore, a systematic review and synthesis of the literature is urgently needed to map the landscape of ELCs within the digital era, identify recurring themes, and highlight critical gaps. By conducting a scoping review of peer-reviewed studies from 2015 to 2025, this research aims to generate an evidence-based framework that supports both the scholarly understanding and practical advancement of community enterprise leadership in digitally transforming contexts.

2. Research Objective

The primary objective of this study is to identify, synthesize, and categorize the entrepreneurial leadership competencies (ELCs) that are essential for community enterprises operating in the digital era. Using a scoping review methodology grounded in the PRISMA 2020 framework, the study aims to map the existing body of peer-reviewed literature published between 2015 and 2025 on ELCs in the context of digital transformation and community enterprises; identify thematic clusters of competencies that recur across diverse settings and sectors; and highlight existing knowledge gaps related to digital readiness, leadership development, and community engagement.

3. Literature Review

3.1 Entrepreneurial Leadership: Conceptual Foundations

Entrepreneurial leadership is widely recognized as a hybrid construct that merges the proactive, innovative, and opportunity-oriented traits of entrepreneurs with the vision-setting, team-building, and strategic decision-making functions of leaders (Gupta et al., 2004; Harrison et al., 2019). This integrative leadership style is particularly relevant in environments characterized by volatility, uncertainty, complexity, and ambiguity (VUCA), where agility and forward-thinking are essential for organizational survival and growth. Entrepreneurial leaders not only recognize and exploit opportunities but also mobilize resources, inspire teams, and drive innovation under constraints (Fernald et al., 2005; Renko et al., 2015).

3.2 Community Enterprises in the Digital Era

Community enterprises occupy a unique niche at the intersection of economic activity and social mission. They are often rooted in specific cultural, geographic, or demographic contexts and aim to promote inclusive development through locally driven initiatives (UNCTAD, 2021; Renko et al., 2015). However, the rise of digital technologies has introduced new challenges and opportunities. Digital transformation—defined as the integration of digital technologies into all aspects of business operations—requires community enterprise leaders to adopt new competencies related to data use, platform engagement, and customer experience management (European Commission, 2020; Nambisan, 2017).

Unlike larger firms, community enterprises typically face resource limitations, making leadership skills even more critical for adapting to digital disruption. Studies have shown that digital adoption in such enterprises is uneven and often hindered by digital skill gaps, resistance to change, and inadequate infrastructure (Lokuge & Duan, 2023; Van Laar et al., 2020). As such, the role of entrepreneurial leadership in navigating digital transformation becomes increasingly vital.

3.3 Entrepreneurial and Digital Leadership in the Era of Disruption

Entrepreneurial leadership is traditionally defined by traits such as opportunity recognition, strategic risk-taking, and value creation under uncertainty (Gupta et al., 2004). In contrast, digital leadership emphasizes the ability to leverage digital tools, manage digital teams, and navigate technological complexity (Schiuma & Carlucci, 2024). In digitally disrupted environments—where technologies change rapidly, customer behaviors evolve, and traditional business models are challenged—these two leadership domains begin to converge.

For community enterprises, which often lack formal digital infrastructure and operate in culturally rooted, resource-constrained settings, the convergence of entrepreneurial and digital leadership becomes essential. Entrepreneurial leaders in these contexts must not only recognize opportunities but also adapt those opportunities to

digital platforms, manage online stakeholder relationships, and mitigate digital risks such as misinformation and cyber threats (ENISA, 2020). Therefore, digital disruption acts as a catalyst that reshapes the role of community enterprise leaders—from being localized initiators to digitally-enabled change agents.

3.4 Gaps in Existing Literature

Despite growing attention to digital leadership and entrepreneurship, there remains a significant gap in research that integrates these themes within the context of community enterprises. Much of the existing literature is either conceptual or focused on corporate SMEs, with limited empirical work specific to community-led organizations. Furthermore, training programs and policy initiatives often lack specificity regarding the competencies required for digital leadership in these settings (Teerapong, 2021; Singh & Sharma, 2024). There is also a need for localized frameworks that account for cultural, economic, and technological diversity across regions. For example, research in Thailand and Southeast Asia suggests that grassroots enterprises face unique barriers to digital transformation, such as language limitations, lack of trust in technology, and low digital literacy among older leaders (Worapongpat, 2024; ABAC, 2021).

3.5 Toward an Integrated Competency Framework

Drawing from this body of literature, this study proposes a synthesized framework of entrepreneurial leadership competencies tailored to community enterprises operating in the digital era. The scoping review conducted in this research is designed to identify recurring competency themes, assess their relevance across contexts, and map out gaps that can inform future leadership development programs and policy interventions.

4. Method

This study employed a scoping review methodology guided by the PRISMA Extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018), in conjunction with the JBI Manual for Evidence Synthesis (Peters et al., 2020). PRISMA-ScR is specifically designed to improve the transparency and completeness of scoping review reporting, offering a 22-item checklist tailored to the broader objectives of mapping concepts and identifying knowledge gaps rather than assessing intervention effectiveness.

4.1 Research Design

The review process followed the recommended five-stage framework: (1) defining the research question; (2) identifying relevant studies; (3) selecting studies based on inclusion criteria; (4) extracting and charting data; and (5) collating, summarizing, and reporting the results. The PRISMA-ScR flow diagram (Figure 1) was used to document the selection process.

4.2 Eligibility Criteria

Studies were included based on the following criteria:

- Publication type: Peer-reviewed journal articles
- Publication years: 2015–2025
- Language: English (or articles with an English abstract)
- Focus: Studies that explicitly addressed entrepreneurial leadership competencies (ELCs) in the context of digital transformation
- Context: Community enterprises or comparable small- and medium-sized enterprise (SME) settings
- Accessibility: Full-text availability through selected databases

Exclusion criteria included conference abstracts, books, book chapters, reports, non-peer-reviewed sources, and studies that focused solely on general digital skills without linking to leadership or enterprise contexts.

4.3 Information Sources and Search Strategy

A systematic search was conducted across five databases: Scopus, Web of Science, EBSCOhost, ProQuest, and Google Scholar. The search was performed between June 1–5, 2025, using a combination of keywords such as: ("entrepreneurial leadership competencies" OR "entrepreneurial leadership skills") AND ("community enterprise*" OR "social enterprise*" OR "SME") AND ("digital era" OR "digital transformation" OR "technology adoption"). The initial search yielded a total of 480 records (Scopus: 102, Web of Science: 91, EBSCOhost: 88, ProQuest: 104, Google Scholar: 95). After deduplication using Zotero and manual verification, 398 unique records remained for

screening.

4.4 Study Selection and Screening Process

The screening process followed two sequential phases:

- (1) Title and Abstract Screening Two independent reviewers (Author A and Author B) screened 398 records. Studies were excluded if they did not meet inclusion criteria based on scope, context, or design.
- (2) Full-Text Review 80 articles were read in full, of which 16 met the final inclusion criteria.

A codebook was developed in advance based on predefined inclusion/exclusion criteria (e.g., relevance to ELCs, community enterprise context, digital transformation focus). Each reviewer independently applied the codebook using a binary classification (include / exclude), with justifications logged in a shared spreadsheet.

Disagreements were resolved through discussion, followed by consensus with a third author when needed. Inter-rater reliability was assessed using Cohen's kappa ($\kappa = 0.81$), and the consensus process was documented. Additionally, we applied a discrepancy resolution protocol, whereby reviewers independently re-examined conflicting records and re-validated their decisions with anonymized notes, prior to final agreement.

4.5 Data Extraction and Charting

A data extraction form was developed and piloted on two studies before full implementation. The following information was extracted from each article:

- Author(s), year of publication, and country/region
- Study design (qualitative, quantitative, mixed-methods, or conceptual)
- Type of enterprise (e.g., community-based, cooperative, SME)
- Focused ELC domains and digital competency areas
- Sectoral context (e.g., agriculture, services, handicrafts)
- Key findings and reported implications

Data were synthesized thematically to identify common patterns and categorize the competencies into conceptual clusters.

4.5.1 Descriptive Quality Appraisal

To strengthen the methodological rigor of this review, a basic descriptive quality appraisal was conducted for the 16 included studies. While formal critical appraisal tools (e.g., JBI or CASP checklists) are often not required for scoping reviews (Peters et al., 2020), we undertook an appraisal process to provide transparency regarding the credibility of the included evidence.

Each study was assessed based on four descriptive dimensions:

- 1. Study Design Robustness (e.g., empirical vs. conceptual; qualitative, quantitative, or mixed-methods)
- 2. Clarity of Methods (e.g., clearly stated data collection and analysis procedures)
- 3. Relevance to Research Questions (i.e., direct engagement with both entrepreneurial leadership and digital transformation in community or SME contexts)
- 4. Reporting Transparency (e.g., sample size, context, limitations discussed)

The results of this appraisal are summarized in Table 1. While most empirical studies demonstrated strong relevance and clear methodology, conceptual works varied in depth. Limitations were noted in a few studies due to lack of detailed methods or ambiguous linkage to digital competencies. However, all studies were deemed sufficiently credible and relevant for inclusion in this review.

4.6 Synthesis and Reporting

A narrative synthesis approach was used to organize the findings into five thematic clusters of ELCs. These were aligned with both existing frameworks (e.g., EntreComp, digital leadership theory) and the practical realities of community enterprise leadership in digital settings. Gaps and inconsistencies across studies were documented to guide future research and policy recommendations.

5. Results

A total of 16 peer-reviewed studies published between 2015 and 2025 met the inclusion criteria and were included in this scoping review. The selected studies represented diverse regional and methodological contexts, covering countries such as Thailand, Indonesia, India, China, and several global conceptual works. Most studies were conducted within the Southeast Asian region (n = 9), followed by South Asia (n = 2), China (n = 1), and global or multi-country contexts (n = 4). In terms of research design, the corpus included qualitative studies (n = 6), conceptual or framework-based papers (n = 5), mixed-method studies (n = 3), and quantitative survey-based studies (n = 2). Sectoral focuses ranged from agricultural cooperatives and handicraft clusters to community-based tourism and digital platforms for local entrepreneurs.

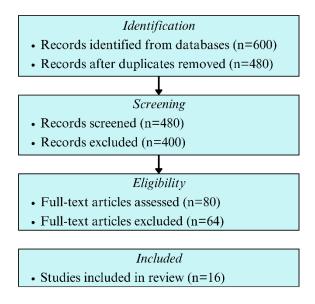


Figure 1. PRISMA-ScR Flow Diagram (adapted from Tricco et al., 2018)

5.1 Overview of Included Studies

Table 1 summarizes the core characteristics of the included studies, including country, method, context, and thematic focus. This enables a comparative view of how entrepreneurial leadership competencies (ELCs) are discussed across different sectors and settings.

Table 1. Summary of Focused ELC and Digital Cluster

Author(s), Year	Country / Context	Focused ELC / Digital Cluster	Key Findings
Yadav et al. (2024)	India – Handicraft SMEs	Entrepreneurial leadership, social media, digital technology, innovation, talent management/entrepreneurial orientation	Entrepreneurial leadership, social media, and digital technology positively influence business performance, partially mediated by talent management and entrepreneurial orientation.
Chaniago (2023)	Indonesia – Culinary SMEs	Entrepreneurial leadership and digital transformation	Entrepreneurial leadership drives digital transformation and enhances business success in uncertain environments.
Khiawnoi et al. (2025)	Thailand – Community enterprises	Visionary/strategic orientation; community leadership roles	Identified five strategic leadership roles of community enterprise entrepreneurs as a framework for sustainable competency development.

Jarusen & Cheunkamon (2024)	Thailand – Community enterprises	Measurement model; governance and leadership	Developed a measurement model of community enterprise management based on survey data, highlighting leadership and governance competencies.
Renko et al. (2015)	Cross-national (USA & Finland)	Entrepreneurial leadership; measurement model; leadership orientation	Developed a multidimensional scale to measure entrepreneurial leadership; identified key traits linked to venture success.
Tran et al. (2024)	Global – Community-based enterprises	Digital marketing capability (platforms)	A systematic review of CBE digital marketing, emphasizing competencies necessary for sustainable growth.
Chienwattanasook et al. (2023)	Thailand – Community enterprises	Social media marketing skills; adaptation	Training in social media marketing significantly enhanced the adaptive capacity of community enterprises during COVID-19.
Worapongpat (2024)	Thailand – Community enterprise groups	Digital market systems; platform management	Developed a digital market management system for community enterprise groups, strengthening platform and social media competencies.
JIPD (ENPRESS), 2024	Thailand – Community enterprises	Online selling barriers; advisory guidelines	Proposed advisory guidelines for community enterprise leaders to overcome barriers to online selling and access digital markets.
ABAC (2021)	Thailand – Community enterprises	IT and digital marketing usage	Explained the use of IT to build digital marketing platforms for community enterprises, supporting sustainable development.
Kachawangsie (2025)	Thailand – Community entrepreneurs	Digital marketing strategy (Delphi study)	Developed the DIOS model for digital marketing strategy, enhancing marketing competencies among community entrepreneurs in Nonthaburi Province.
Müller et al. (2024)	Global – multiple sectors	Leadership competency portfolios for digital transformation	Proposed four archetypes of leadership competency portfolios for digital transformation, applicable as a framework for community enterprise leaders.
Tagscherer et al. (2023)	Global – review	Visionary, customer-centric, change-embracing leadership	Synthesized leadership competencies enabling digitalization: visionary orientation, customer-centric focus, and openness to change.
Schiuma & Carlucci (2024)	Global – organizational level	Transformative leadership competencies	Highlighted human-centric leadership as essential for integrating digital knowledge to drive transformation.
AlNuaimi et al. (2022)	Global – organizational level	Leadership-agility-digital strategy nexus	Demonstrated that leadership competencies and internal agility foster successful digital transformation.
Wang et al., 2022	China – Firms	Digital leadership and exploratory innovation	Found that digital leadership fosters exploratory innovation, mediated by orientation and ambidexterity.

Table 1 illustrates the wide range of study contexts—from handicraft SMEs in India to agricultural cooperatives in Thailand—reinforcing the cross-sectoral applicability of ELCs. However, as discussed in Section 6, these competencies do not manifest uniformly; their expression is shaped by local infrastructure, cultural expectations, and market maturity. In Figure 2, cybersecurity and AI readiness appear visually marginalized compared to other clusters. This accurately reflects their underrepresentation in the literature, yet ironically, these are the very domains that will grow in relevance as digital platforms become more complex and vulnerable.

5.2 Integration of Conceptual and Empirical Studies

Among the 16 included studies, 5 were conceptual or literature reviews (e.g., Gupta et al., 2004; Tagscherer et al., 2023), while the remaining 11 employed empirical methodologies. These empirical works were distributed as follows: six qualitative case studies or interviews, three mixed-method designs, and two large-scale quantitative surveys. The conceptual studies provided theoretical grounding, helping define constructs such as "visionary leadership" and "digital ambidexterity," while empirical studies supplied contextualized evidence of how these competencies manifest in real-world community enterprise settings. For instance, Yadav et al. (2024) demonstrated quantitatively how digital leadership positively impacts performance in Indian SMEs, while Chienwattanasook et al. (2023) offered qualitative insights into social media training's effect on enterprise adaptability. By distinguishing the contributions of each type of study, the synthesis ensures that theoretical propositions are supported by relevant empirical evidence, and areas lacking empirical validation—such as cybersecurity competencies—are clearly identified.

5.3 Frequency Analysis of Competency Themes

Thematic analysis of the included studies revealed five dominant clusters of entrepreneurial leadership competencies: (1) digital literacy and platform management, (2) visionary leadership, (3) community engagement, (4) innovation and adaptability, and (5) cybersecurity awareness. These clusters emerged from 13 of 16 studies for digital literacy, 11 for visionary leadership, and so on (see Figure 2).

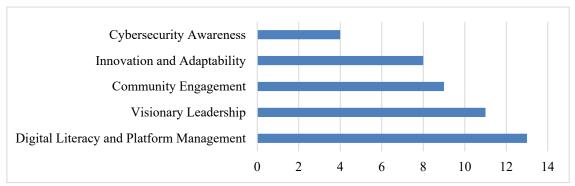


Figure 2. Frequency of ELC Themes Across Studies

As shown in Figure 2, digital literacy and platform management emerged as the most frequently cited competency, appearing in 13 of the 16 studies reviewed. This reflects a strong consensus across empirical and conceptual works regarding the centrality of digital fluency for modern leadership. Notably, Southeast Asian studies (e.g., Chaniago, 2023; Chienwattanasook et al., 2023) emphasized social media and platform skills for reaching new markets and improving community trust.

5.4 Emergent Competency Clusters

Thematic synthesis of the 16 studies revealed five key clusters of entrepreneurial leadership competencies (ELCs) essential for community enterprises navigating digital transformation. These are outlined below:

- 1. Digital Literacy and Platform Management. Competency in using digital tools—including e-commerce platforms, CRM systems, and social media—is increasingly recognized as essential. Studies found that leaders proficient in digital platforms were more likely to access broader markets, enhance customer interaction, and build community trust (Chaniago, 2023; Chienwattanasook, 2023). Digital literacy was one of the most frequently cited themes, appearing in over 80% of the studies reviewed.
- 2. Visionary Leadership. This cluster emphasizes the importance of long-term vision, strategic foresight, and mission

alignment. Leaders must anticipate digital change and articulate a compelling roadmap for transformation. Khiawnoi et al. (2025) and Tagscherer et al. (2023) argue that visionary thinking underpins all other competencies and is critical for sustaining purpose-driven innovation.

- 3. Community Engagement. Distinct from corporate SMEs, community enterprises prioritize cultural relevance and inclusivity. Competent leaders engage local stakeholders, incorporate community voices into digital planning, and co-design inclusive strategies (Renko et al., 2015; Jarusen et al., 2024). This competency ensures that technological adoption is contextually grounded and socially sustainable.
- 4. Innovation and Adaptability. This cluster covers the ability to integrate new technologies such as AI, automation, and data analytics into business models. Wang and Yao (2022) show that digital leadership enhances exploratory innovation, particularly in rapidly changing markets. However, smaller community enterprises face challenges in terms of resource availability and digital readiness, as noted by Müller et al. (2024).
- 5. Cybersecurity Awareness. Only a few studies addressed cybersecurity explicitly, indicating a significant competency gap. As enterprises expand their digital operations, awareness of risks—such as data breaches, fraud, and misinformation—is crucial (ENISA, 2020). The review highlights the absence of structured training programs in cybersecurity for grassroots leaders.

The findings regarding entrepreneurial leadership competencies (ELC) for community enterprises in the digital era are presented in the following figure.

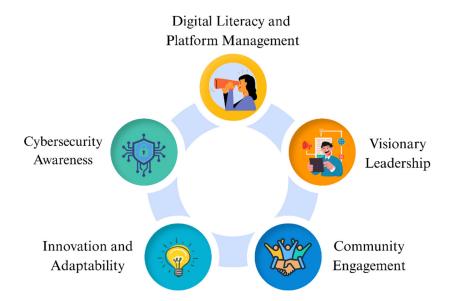


Figure 3. Entrepreneurial Leadership Competencies (ELC) for Community Enterprises in the Digital Era Source: Developed by the authors.

6. Discussion

This scoping review synthesizes current knowledge on entrepreneurial leadership competencies (ELCs) essential for community enterprises in the context of digital transformation. The findings confirm that effective leadership in this domain requires not only traditional entrepreneurial traits—such as opportunity recognition, vision, and innovation—but also advanced digital competencies and socio-cultural sensitivity. The review highlights five key clusters: visionary leadership, digital literacy, innovation and adaptability, risk and cybersecurity awareness, and community engagement. These results both extend existing theories and offer new insights relevant to practice, policy, and future research.

6.1 Theoretical Contribution and Framework Differentiation

While this study draws from established models such as the EntreComp Framework (European Commission, 2016) and the Digital Leadership Competency models (e.g., Schiuma & Carlucci, 2024), the proposed framework offers both conceptual extension and contextual differentiation.

Conceptually, the framework moves beyond EntreComp's focus on individual entrepreneurship and adds leadership dimensions critical for community-level transformation. For instance, competencies such as cybersecurity awareness, platform-specific literacy, and community co-creation are either underrepresented or absent in standard models. Similarly, digital leadership models often emphasize executive-level competencies suited for firms with digital infrastructure—whereas community enterprises require low-barrier, trust-based, and inclusive leadership practices.

Contextually, the framework is grounded in the unique realities of community enterprises, which differ from generic SMEs in three ways:

- *Embeddedness*: Community enterprises are tightly interwoven with local culture and identity, requiring leaders to navigate social expectations alongside innovation imperatives.
- *Digital Divide*: They often face structural barriers to digital access, meaning that digital leadership here involves enabling access, not just optimizing systems.
- Stakeholder Multiplicity: Unlike profit-driven SMEs, community enterprises must balance commercial viability with social and participatory obligations.

These contextual factors necessitate a hybrid leadership model that integrates entrepreneurial initiative, technological pragmatism, and community stewardship—a combination that is underdeveloped in mainstream competency frameworks. By responding to these gaps, the framework proposed here contributes both to the theoretical evolution of leadership competencies and to practice-based strategies for digitally enabling community enterprises.

6.2 Practical Implications for Community Enterprises

The findings suggest that community enterprise leaders must evolve from traditional managerial roles into digitally strategic leaders. This shift involves not only embracing digital tools but also fostering a culture of continuous learning, experimentation, and innovation. Leaders who can combine vision with platform proficiency and community co-creation are better positioned to scale their enterprises, expand market access, and remain resilient during crises such as the COVID-19 pandemic (Chienwattanasook, 2023; Lokuge & Duan, 2023). However, gaps in digital skills and cybersecurity awareness remain significant. Many grassroots enterprises lack structured training programs or access to relevant resources. Without targeted interventions, these gaps may exacerbate digital exclusion and hinder the long-term viability of community enterprises (ENISA, 2020; Van Laar et al., 2020).

6.3 Policy Implications and Capacity Building

While this review identified digital literacy and visionary leadership as widely supported competencies, fewer studies explicitly examined areas such as cybersecurity awareness or AI readiness (e.g., ENISA, 2020; Syam & Sharma, 2018). Therefore, any policy recommendation regarding these areas should be approached with caution.

Policymakers and development agencies may consider piloting context-sensitive training modules that include introductory elements on AI and cybersecurity. These components could be particularly relevant as community enterprises increasingly interact with data-driven platforms, despite the current evidence base being limited.

In addition, national digital economy strategies such as Thailand 4.0 might benefit from expanding their focus beyond infrastructure to include leadership development, especially among community-level organizations that are often left behind in digital transformation efforts (Van Laar et al., 2020; Lokuge & Duan, 2023).

In summary, the policy implications offered in this study are intended to highlight potential avenues rather than definitive prescriptions. Further empirical research is needed to substantiate the role of advanced digital competencies such as AI integration and cybersecurity management in the context of community enterprises.

6.4 Research Gaps and Future Directions

While this scoping review has identified five key competency clusters essential for entrepreneurial leadership in digitally transforming community enterprises, several important areas remain underexplored and warrant deeper empirical investigation. For instance, although digital literacy was the most frequently cited competency, its broader social implications—particularly in enhancing community trust or strengthening social capital—have not been adequately examined. Future research may explore whether higher levels of platform literacy among community enterprise leaders are positively associated with stakeholder trust and legitimacy. In resource-constrained settings, where financial and infrastructural limitations are common, innovation has emerged as a resilience factor. This suggests the need to investigate how innovation capabilities may mediate the relationship between visionary leadership and enterprise performance, particularly under conditions of digital scarcity. Additionally, cybersecurity awareness—despite being critical in digital environments—was explicitly addressed in only a handful of studies.

This gap calls for empirical examination of whether low levels of cybersecurity awareness among community leaders increase their vulnerability to risks such as fraud, data breaches, or misinformation.

Beyond these thematic gaps, the effectiveness of entrepreneurial leadership competencies may also vary across cultural and geographic contexts. In particular, the influence of stakeholder engagement competencies could be moderated by socio-cultural orientations, such as collectivism or individualism, which shape how leadership is exercised and received within communities. Comparative studies across cultural settings would thus provide valuable insights. Furthermore, most existing competency measurement tools have been designed for SMEs or startups in urbanized, corporate contexts and may not capture the unique dynamics of community-based leadership. Future research should prioritize the development of contextualized instruments that reflect the realities of grassroots enterprises, incorporating dimensions such as digital confidence, cultural embeddedness, and participatory leadership. Taken together, these propositions aim to shift future inquiry from descriptive mapping toward hypothesis-driven and context-sensitive research, thereby strengthening both theoretical development and practical application in digitally transforming community ecosystems.

6.5 Toward a Hybrid Competency Model

Finally, the evidence suggests that community enterprise leaders must possess a hybrid competency model—one that integrates entrepreneurial initiative, digital intelligence, and community stewardship. This model departs from corporate digital leadership paradigms by embedding social impact, cultural awareness, and inclusivity at the core of leadership practice. Such a model not only prepares leaders to navigate digital disruption but also to ensure that transformation is ethical, inclusive, and contextually grounded.

7. Conclusion

This scoping review examined the landscape of entrepreneurial leadership competencies (ELCs) necessary for community enterprises navigating digital transformation. Drawing from 16 peer-reviewed studies published between 2015 and 2025, the review synthesized a wide range of conceptual and empirical insights into five interrelated competency clusters: (1) digital literacy and platform management, (2) visionary leadership, (3) community engagement, (4) innovation and adaptability, and (5) cybersecurity awareness. Together, these clusters reflect a hybrid leadership paradigm that integrates entrepreneurial initiative, technological fluency, and community stewardship. This integrated model marks a departure from traditional leadership frameworks, emphasizing not only market-driven innovation but also the importance of inclusivity, cultural relevance, and long-term sustainability. While some competencies—such as digital literacy and strategic vision—appear widely recognized and developed, others—particularly cybersecurity awareness and AI readiness—remain underrepresented in both practice and literature.

The findings of this review offer several practical and policy implications. For practitioners, the results highlight the need to develop leadership capacities that extend beyond operational skills to include digital strategy, ethical innovation, and community engagement. For policymakers and support organizations, the review calls for context-sensitive training programs and competency frameworks that are tailored to the realities of community enterprises, especially in resource-constrained or digitally excluded regions.

Importantly, this study contributes to the theoretical development of entrepreneurial leadership by extending existing models into the digital and community enterprise domains. It also identifies clear research gaps related to longitudinal competency development, cross-cultural comparison, and measurement tool validation.

In conclusion, entrepreneurial leadership in community enterprises is no longer defined solely by the ability to recognize and pursue opportunities. It now demands the capacity to lead digital transformation in a manner that is resilient, inclusive, and grounded in community values. By cultivating this hybrid set of competencies, community enterprise leaders can better navigate digital disruption, strengthen organizational impact, and contribute meaningfully to sustainable local development.

References

Acs, Z. J., Audretsch, D. B., Lehmann, E. E., & Licht, G. (2016). An absorptive capacity theory of knowledge spillover entrepreneurship. *Small Business Economics*, 48(1), 185-193. https://doi.org/10.1007/s11187-016-9763-2

Ahmed, F., & Zahid, S. (2021). Challenges and competencies of entrepreneurial leaders in makerspaces and DIY labs.

- Technology Analysis & Strategic Management, 33(8), 883-897. https://doi.org/10.1080/09537325.2021.1908538
- Chaniago, H. (2023). Achieving business success in uncertain economic conditions: Role of entrepreneurial leadership and digital transformation in culinary SMEs. *Journal of Technology Management & Innovation*, 18(2), 75-84. https://doi.org/10.4067/S0718-27242023000200018
- Chienwattanasook, K., Trisakhon, C., & Ridsomboon, L. (2023). The success of training in social media marketing and adaptation of community enterprises in the era of the COVID-19 pandemic. *International Journal of Operations and Quantitative Management*, 29(1), 175-190. https://doi.org/10.46970/2022.29.1.11
- Dede, C. (2009). Comparing frameworks for 21st century skills. *Harvard Graduate School of Education*. Retrieved from https://www.researchgate.net/publication/220040581
- ENISA. (2020). *Cybersecurity for SMEs: Challenges and recommendations*. European Union Agency for Cybersecurity. Retrieved from https://www.enisa.europa.eu/publications/enisa-report-cybersecurity-for-smes
- European Commission. (2016). *EntreComp: The Entrepreneurship Competence Framework*. Publications Office of the European Union. Retrieved from https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=7981
- European Commission. (2020). *Digital Economy and Society Index (DESI) Report*. Retrieved from https://digital-strategy.ec.europa.eu/en/policies/desi
- Fernald, L. W., Solomon, G. T., & Tarabishy, A. (2005). A new paradigm: Entrepreneurial leadership. *Southern Business Review*, 30(2), 1-10.
- Gupta, V., MacMillan, I. C., & Surie, G. (2004). Entrepreneurial leadership: Developing and measuring a cross-cultural construct. *Journal of Business Venturing*, 19(2), 241-260. https://doi.org/10.1016/S0883-9026(03)00040-5
- Harrison, C., Burnard, K., & Paul, S. (2019). Entrepreneurial leadership: A systematic literature review. *International Review of Entrepreneurship*, 14(2), 235-264.
- Jarusen, J., & Cheunkamon, E. (2024). Measurement model for community enterprise management strategies. *Heliyon*, 10, e38744. https://doi.org/10.1016/j.heliyon.2024.e38744
- Kachawangsie, A. (2025). Causal factors influencing digital marketing strategy of community enterprise. *International Journal of Innovative Research and Scientific Studies*, 8(2), 610-620. https://doi.org/10.53894/ijirss.v8i2.5252
- Khiawnoi, P., Nakudom, S. S., Noobutr, P., & Kaewzang, U. (2025). Empowering communities: The strategic role of community enterprise entrepreneurs in sustainable development. *Sustainability*, 17(12), 5483. https://doi.org/10.3390/su17125483
- Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: advancing the methodology. *Implementation Science*, 5(1), 69. https://doi.org/10.1186/1748-5908-5-69
- Lokuge, S., & Duan, S. X. (2021). Towards understanding enablers of digital transformation in SMEs. *arXiv*. Retrieved from shttps://arxiv.org/abs/2111.05989
- Lokuge, S., & Duan, S. X. (2023). Exploring the enablers of digital transformation in small and medium-sized enterprises. *arXiv*. Retrieved from https://arxiv.org/abs/2302.12506
- Müller, S. D., Konzag, H., Nielsen, J. A., & Sandholt, H. B. (2024). Digital transformation leadership competencies: A contingency approach. *International Journal of Information Management*, 75, 1-11. https://doi.org/10.1016/j.ijinfomgt.2023.102734
- Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, 18(1), 143. https://doi.org/10.1186/s12874-018-0611-x
- Nambisan, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship Theory and Practice*, 41(6), 1029-1055. https://doi.org/10.1111/etap.12254
- Peters, M. D. J., Godfrey, C. M., McInerney, P., et al. (2020). *Chapter 11: Scoping Reviews (2020 version)*. In JBI Manual for Evidence Synthesis. Retrieved from https://synthesismanual.jbi.global
- Renko, M., El Tarabishy, A., Carsrud, A. L., & Brännback, M. (2015). Understanding and measuring entrepreneurial leadership style. *Journal of Small Business Management*, 53(1), 54-74. https://doi.org/10.1111/jsbm.12086

- Sarkar, S., & Pansera, M. (2017). Sustainability-driven innovation at the bottom: Insights from grassroots ecopreneurs. *Technological Forecasting and Social Change, 115*, 254-264. https://doi.org/10.1016/j.techfore.2016.09.008
- Schiuma, G., & Carlucci, D. (2024). Transformative leadership competencies for organizational digital transformation. *Business Horizons*, 67(3), 203-212. https://doi.org/10.1016/j.bushor.2024.01.002
- Singh, R., & Sharma, A. (2024). Measuring the impact of digital entrepreneurship training on entrepreneurial competencies. *Journal of Work-Applied Management*, 16(1), 142-156. https://doi.org/10.1108/JWAM-09-2023-0101
- Syam, N., & Sharma, A. (2018). Waiting for a sales renaissance in the fourth industrial revolution: Machine learning and artificial intelligence in sales research and practice. *Industrial Marketing Management*, 69, 135-146. https://doi.org/10.1016/j.indmarman.2017.12.019
- Tagscherer, F., Kühl, S., & Vogel, K. (2023). Leadership for successful digitalization: A literature review. *Journal of Business Research*, 155, 113-127. https://doi.org/10.1016/j.jbusres.2022.113127
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., ... & Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*, 169(7), 467-473. https://doi.org/10.7326/M18-0850
- UNCTAD. (2021). Digital Economy Report 2021: Cross-border data flows and development: For whom the data flow (UNCTAD/DER/2021). United Nations Conference on Trade and Development. Retrieved from https://unctad.org/system/files/official-document/der2021_en.pdf
- Van Laar, E., van Deursen, A. J. A. M., van Dijk, J. A. G. M., & de Haan, J. (2020). Determinants of 21st-Century Skills and 21st-Century Digital Skills for Workers: A Systematic Literature Review. *SAGE Open*, 10(1). https://doi.org/10.1177/2158244019900176
- Wang, T., & Yao, X. (2022). Digital leadership and exploratory innovation: The mediating role of ambidexterity. *Frontiers in Psychology, 13*, 902693. https://doi.org/10.3389/fpsyg.2022.902693
- Worapongpat, N., & Khamcharoen, N. (2024). Development of a digital market management system for community enterprise and professional groups. *Journal of Public and Private Issues*, 1(3), 118-133.
- Wu, T., & Zhang, J. (2021). Enabling digital transformation: Entrepreneurial leadership, ambidextrous learning, and organizational performance in digital transformation. *Technovation*, 107, 102273. https://doi.org/10.1016/j.technovation.2021.102273
- Yadav, U. S., Jain, A., & Singh, R. (2024). Impact of entrepreneurial leadership, social media, digital technology, innovation, talent management and entrepreneurial orientation on business performance in handicraft sector. *Journal of Innovation & Entrepreneurship*, 13, 34. https://doi.org/10.1186/s13731-024-00389-5

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