

From Tradition to Transformation: The Mediating Role of Entrepreneurial Learning and Digital Readiness in Leveraging Socio-Cultural Capital for Innovation

Muliyadi Hamid ^(1*) Ilham Safar ⁽²⁾ Wahyu ⁽³⁾ Ramlawati ⁽⁴⁾ Nasyirah Nurdin ⁽⁵⁾

⁽¹⁾ Master of Management, Postgraduate Faculty, Universitas Fajar. Indonesia

^(2,3,5) Departement of Management, Faculty Busines and Social Sciences, Universitas Fajar. Indonesia

⁽³⁾ Universitas Muslim Indonesia

Received: 2025, 22,05 Accepted: 2025, 25,08

Available online: 2025, 12,28

* Corresponding author.

E-mail addresses: muliyadi@unifa.ac.id (Muliyadi Hamid), ilhamsafar@unifa.ac.id (Ilham Safar), wahyu@unifa.ac.id (Wahyu), ramlawati.ramlawati@umi.ac.id (Ramlawati), nasyirahnurdin@gmail.com (Nasyirah Nurdin),

KEYWORDS	ABSTRACT
<p>Keywords: Socio-cultural capital; Entrepreneurial learning; Digital readiness; Innovation; MSMEs</p> <p>Conflict of Interest Statement: The author(s) declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.</p> <p>Copyright © 2025 AMAR. All rights reserved.</p>	<p>Purpose: This study aims to examine how socio-cultural capital influences innovation among micro, small, and medium enterprises (MSMEs) in South Sulawesi through the mediating roles of entrepreneurial learning and digital readiness. The research seeks to clarify how cultural values and learning dynamics interact to shape digital and innovative capabilities within emerging market contexts.</p> <p>Research Design and Methodology: A quantitative approach was employed using Structural Equation Modeling Partial Least Squares (SEM-PLS) to test a double-mediation model. Data were collected from 300 MSME owners across five regencies in South Sulawesi Makassar, Gowa, Maros, Bone, and Wajo representing diverse socio-cultural and economic landscapes. The constructs were measured using validated indicators adapted from prior studies, and data were analyzed using SmartPLS 4 to assess both measurement and structural models.</p> <p>Findings and Discussion: The results reveal that socio-cultural capital indirectly enhances innovation through entrepreneurial learning and digital readiness. Entrepreneurial learning serves as a bridge between traditional values and digital transformation, while digital readiness translates learning outcomes into innovative practices. This indicates that innovation in culturally embedded settings arises not merely from technology adoption but from the dynamic interplay of culture, learning, and digital adaptation.</p> <p>Implications: The study emphasizes the need for policy and managerial interventions that integrate cultural values into innovation strategies. Strengthening culturally rooted learning ecosystems and promoting digital literacy can enhance MSME competitiveness and sustainability in emerging regions.</p>

Introduction

In Indonesia's rapidly evolving entrepreneurial landscape, the conversation about innovation has shifted from capital and infrastructure toward the human and cultural dimensions of entrepreneurship. While financial capital and technology remain critical, the foundation of entrepreneurial sustainability in developing regions often lies in social and cultural capital values such as *gotong royong*, *siri' na pacce*, mutual trust, and community solidarity (Dana & Ramadani, 2015; Ramadani et al., 2023). These social values form a unique reservoir of collective intelligence that supports collaboration and resilience among entrepreneurs, particularly in the eastern part of Indonesia, where small enterprises remain the dominant economic force.

South Sulawesi represents a region with deeply rooted social networks and cultural traditions, where entrepreneurship is not only an economic activity but also a reflection of communal values. However, despite this strong socio-cultural capital, most micro and small enterprises in the region remain stagnant in their growth trajectory. Many businesses that began as microenterprises continue to operate within the same scale for years, failing to transition into more competitive and innovative stages. This stagnation reflects a paradox high social cohesion and cultural embeddedness do not necessarily translate into innovative capability or digital adaptability (Rahman & Alamsyah, 2019).

The ongoing digital transformation of the economy further widens this gap. The adoption of digital technologies has become a decisive factor in determining entrepreneurial competitiveness and market reach (Kraus et al., 2022). Yet, entrepreneurs in regions with strong traditional foundations often face challenges in adapting to technological change due to limited exposure, lack of digital literacy, and low institutional support (Li et al., 2023). As a result, socio-cultural capital, while deeply embedded, remains underutilized in driving innovation. This condition reveals a need to understand the *transformational mechanism* that converts traditional social strengths into modern entrepreneurial capabilities. Entrepreneurial learning (EL) emerges as a key enabler in this transformation process. It serves as a bridge between cultural embeddedness and digital capability allowing entrepreneurs to reinterpret traditional values and experiences into adaptive learning and innovation-oriented behavior (Cope, 2005; Khalid et al., 2023). Through continuous reflection, experimentation, and knowledge exchange, entrepreneurs learn how to integrate cultural wisdom into new forms of digital engagement. This learning, when reinforced by digital readiness (DR), enables businesses to apply technology strategically, resulting in increased innovation and competitiveness (Santoro et al., 2023; Yu et al., 2023).

The case of South Sulawesi is especially relevant. Across districts such as Makassar, Gowa, Wajo, Bone, and Tana Toraja, local entrepreneurs demonstrate rich cultural traditions and strong social cohesion yet, their innovation outcomes vary significantly. Some MSMEs have successfully used digital tools to modernize traditional crafts or culinary ventures, while others remain rooted in manual production and conventional marketing practices. This disparity illustrates that innovation does not automatically emerge from socio-cultural capital; it requires transformation through learning and digital capability building. Existing studies have primarily explored social capital as a static determinant of entrepreneurial success, focusing on its direct influence on performance (Urbano et al., 2020; Bresciani et al., 2022). However, little attention has been given to how socio-cultural capital interacts dynamically with learning processes and digital readiness to generate innovation particularly in culturally embedded contexts like eastern Indonesia. This conceptual and empirical gap highlights the need for a new perspective that emphasizes *process-based transformation* rather than direct causation.

Accordingly, the purpose of this study is to investigate how socio-cultural capital influences innovation through the sequential mediating roles of entrepreneurial learning and digital readiness. This study does not examine direct relationships; rather, it focuses on uncovering the underlying mechanisms that explain how cultural values evolve into digital and innovative capabilities among entrepreneurs in South Sulawesi. Theoretically, this research contributes to extending the discourse on entrepreneurial transformation by integrating *social capital theory*, *entrepreneurial learning theory*, and the *dynamic capabilities framework* within a culturally embedded context. Practically, it provides insights for policymakers, business incubators, and local entrepreneurs on how to leverage cultural strengths and social cohesion as strategic assets in the digital transformation journey of MSMEs.

Literature Review

1. Socio-Cultural Capital and Entrepreneurial Learning

Socio-cultural capital (SCC) reflects the embedded values, trust, and social networks that shape collective behavior and economic participation within a community (Putnam, 2000; Nahapiet & Ghoshal, 1998). In the context of developing regions such as South Sulawesi, these social and cultural ties often serve as informal institutions that facilitate cooperation, knowledge sharing, and learning among entrepreneurs. Recent studies highlight that socio-cultural capital encourages knowledge exchange and opportunity recognition, leading to stronger entrepreneurial learning outcomes (Ramadani et al., 2023; Akbari et al., 2022). Entrepreneurial learning (EL) refers to the process through which entrepreneurs acquire, interpret, and apply knowledge to improve decision-making and innovation (Cope, 2005; Wang & Chugh, 2014). Within a socio-cultural context, EL does not occur in isolation but is socially embedded influenced by collective norms, cultural identity, and relational trust (Khalid et al., 2023). Thus, socio-cultural capital provides both the motivation and the social infrastructure for entrepreneurs to engage in learning behavior.

H1: Socio-cultural capital positively influences entrepreneurial learning.

2. Socio-Cultural Capital, Entrepreneurial Learning, and Digital Readiness

The transition from traditional to digital entrepreneurship requires not only technological adoption but also the transformation of social and cognitive resources (Li et al., 2023). Socio-cultural capital, when filtered through entrepreneurial learning, enables entrepreneurs to reinterpret cultural norms into innovative, digital-oriented practices (Santoro et al., 2023). Entrepreneurial learning acts as a bridge that connects cultural embeddedness with technological readiness. It enhances digital competencies, fosters adaptive thinking, and prepares entrepreneurs to leverage technology for business efficiency (Kraus et al., 2022; Yu et al., 2023). In regions like South Sulawesi, where collectivist culture dominates, the process of learning from peers and local role models becomes a major driver of digital readiness among MSMEs.

H2: Entrepreneurial learning mediates the relationship between socio-cultural capital and digital readiness.

3. Entrepreneurial Learning, Digital Readiness, and Innovation

Entrepreneurial learning is a critical antecedent of innovation, particularly when mediated by digital readiness. Learning processes enable entrepreneurs to identify opportunities and experiment with new ideas, while digital readiness provides the infrastructure and mindset necessary for execution (Del Giudice et al., 2021). Studies show that digital capabilities transform learning into innovative outcomes by facilitating faster adaptation, improved information flow, and integration of technology in operations (Zahoor et al., 2022;). Moreover, the dynamic capabilities framework (Teece, 2018) suggests that firms with higher learning and digital adaptability can more effectively reconfigure their resources to generate innovation. Hence, innovation emerges as a consequence of a dual process: knowledge internalization (learning) and technological empowerment (digital readiness).

H3: Digital readiness mediates the relationship between entrepreneurial learning and innovation.

4. The Chain Mediation of Entrepreneurial Learning and Digital Readiness

The transformation from socio-cultural capital to innovation often involves a multi-stage process of capability building. In emerging markets, entrepreneurs rely heavily on social and cultural embeddedness as initial capital, yet achieving innovation requires translating this social capital into learning and digital competence (Dabić et al., 2021; Kraus et al., 2022). The dual mediation of entrepreneurial learning and digital readiness illustrates how traditional values and relationships can evolve into innovative outcomes through continuous adaptation. As Mezirow's (1997) transformative learning theory posits, individuals reinterpret their existing cultural frames of reference through learning, leading to new cognitive schemas and behavioral change. Digital readiness, in turn, operationalizes these changes, allowing cultural and social capital to be transformed into tangible innovation (Santoro et al., 2023).

H4: Socio-cultural capital influences innovation through the sequential mediation of entrepreneurial learning and digital readiness.

This model reflects the From Tradition to Transformation pathway highlighting that innovation in local enterprises is not merely a technological or financial process but a socio-cultural evolution driven by learning and digital capability.

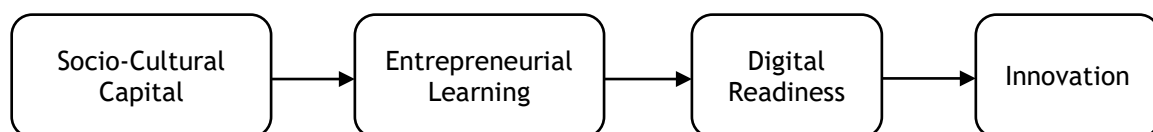


Figure 1. Conceptual Framework

Research Design and Methodology

This study employs a quantitative approach using the Structural Equation Modeling-Partial Least Squares (SEM-PLS) technique to examine the indirect influence of socio-cultural capital on innovation through entrepreneurial learning and digital readiness. The PLS approach was chosen due to its robustness in handling complex mediation models with relatively small sample sizes and non-normal data distribution (Hair et al., 2021). The population of this study consists of MSME actors operating across five regencies in South Sulawesi, namely Makassar, Gowa, Maros, Bone, and Wajo—representing diverse economic and cultural environments. Stratified random sampling was applied to ensure proportional representation of each area based on the number of active MSMEs registered in regional cooperative offices. A total of 300 respondents were selected, fulfilling the minimum sample adequacy for SEM-PLS analysis as suggested by Kline (2023) and Hair et al. (2021).

Data were collected through structured questionnaires using five-point Likert scales to measure all variables. Each construct was operationalized using validated indicators from prior literature, adjusted to the MSME context. *Socio-cultural capital* was measured through dimensions of trust, shared norms, and community participation (Urbano et al., 2023); *entrepreneurial learning* through reflective and experiential learning indicators (Cope, 2005; Rae, 2006); *digital readiness* via technological literacy and adaptation ability (Del Giudice et al., 2021); and *innovation* through product, process, and market-based indicators (Rialti et al., 2020). Data were analyzed using SmartPLS 4 to evaluate both measurement and structural models, with reliability, validity, and mediation effects assessed according to Hair et al. (2021).

Four latent constructs were measured using indicators adapted from prior validated scales, with adjustments for the Indonesian MSME context. All items were rated on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). A pilot test (n = 30) confirmed clarity and contextual validity of the items.

Table 1. Measurement of Constructs

Construct	Indicators	Source
Socio-Cultural Capital (SCC)	<ol style="list-style-type: none"> 1. Trust among community members 2. Shared norms and collective values 3. Cooperation and mutual reciprocity 4. Sense of belonging and social cohesion 	Nahapiet & Ghoshal (1998); Ramadani et al. (2023); Putnam (2000)
Entrepreneurial Learning (EL)	<ol style="list-style-type: none"> 1. Reflection on business experience 2. Learning from mistakes and experimentation 3. Observing and imitating successful peers 4. Applying new knowledge in practice 	Cope (2005); Khalid et al. (2023)
Digital Readiness (DR)	<ol style="list-style-type: none"> 1. Awareness of digital technologies 2. Willingness to adopt new digital tools 3. Integration of digital platforms in business 4. Confidence in using digital applications 	Kraus et al. (2022); Li et al. (2023); Khan et al. (2022)
Innovation (INN)	<ol style="list-style-type: none"> 1. Generating new ideas or solutions 2. Improving business processes 3. Developing new products or services 4. Adapting creatively to market changes 	Santoro et al. (2023); Alegre & Chiva (2013); Hurley & Hult (1998)

Source: reviewed from various literature and appropriate references

Findings and Discussion

A total of 300 valid responses were collected from MSME owners and managers across five major areas of South Sulawesi Province, namely Makassar, Gowa, Wajo, Bone, and Tana Toraja. The sample distribution was designed proportionally using a stratified approach to ensure regional representation and diversity of business sectors.

Table 2. Demographic Characteristics of Respondents

Demographic Variable	Category	Frequency (n)	(%)
Regional Distribution	Makassar City	70	23.3
	Gowa Regency	60	20.0
	Wajo Regency	55	18.3
	Bone Regency	65	21.7
	Tana Toraja Regency	50	16.7
Gender	Male	162	54.0
	Female	138	46.0
Age Group	20-29 years	48	16.0
	30-39 years	102	34.0
	40-49 years	94	31.3
	≥ 50 years	56	18.7
Educational Background	Elementary-Junior High	42	14.0
	Senior High	128	42.7
	Diploma/Bachelor	110	36.7
	Postgraduate	20	6.6
Business Type	Culinary	82	27.3
	Fashion and Craft	76	25.3
	Trade and Retail	70	23.3
	Services	72	24.0
Business Duration	< 3 years	54	18.0
	3-5 years	86	28.7
	6-10 years	92	30.7
	> 10 years	68	22.6
Annual Revenue	< IDR 100 million	68	22.7
	IDR 100-250 million	110	36.6
	IDR 251-500 million	82	27.3
	> IDR 500 million	40	13.4
Number of Employees	1-3 persons	98	32.7
	4-10 persons	122	40.7
	11-20 persons	56	18.6
	> 20 persons	24	8.0

Source: researcher processed data

The demographic profile of 300 respondents reveals a balanced regional distribution across Makassar, Gowa, Wajo, Bone, and Tana Toraja, reflecting the diverse entrepreneurial ecosystem of South Sulawesi. The majority of MSME owners are male (54%) and within the productive age range of 30-49 years (65.3%), indicating an active working-age group with strong motivation for business continuity and adaptation. Most respondents have a relatively high educational background, nearly 80% holding at least a senior high school or higher degree showing sufficient cognitive capacity to engage in entrepreneurial learning and digital adaptation. In terms of experience, almost 60% of MSMEs have operated for more than five years, suggesting business resilience and the presence of accumulated experiential knowledge that supports organizational learning.

From a business and economic perspective, MSMEs are concentrated in four dominant sectors; culinary, crafts, trade, and services, representing the cultural and commercial diversity of the region. Most enterprises remain small-scale, with 73.4% employing fewer than ten workers and generating annual revenues between IDR 100-250 million, consistent with Indonesia's small enterprise classification. These characteristics illustrate an MSME environment that is socially cohesive yet increasingly open to technological change. Consequently, this demographic structure provides strong

contextual support for examining how socio-cultural capital fosters entrepreneurial learning and digital readiness, ultimately leading to innovation within local enterprises.

Following the description of respondent profiles, data screening was conducted to ensure accuracy and suitability for further analysis. Outlier detection and preliminary checks were performed to confirm that the dataset met the assumptions required for PLS-SEM testing.

Tabel 3. Outer Loading Testing

Indicators	Digital Readiness	Entrepreneurial Learning	Innovation	Socio-Cultural Capital
DR1	0.893			
DR2	0.819			
DR3	0.911			
DR4	0.921			
EL1		0.607		
EL2		0.927		
EL3		0.939		
EL4		0.934		
INN1			0.849	
INN2			0.780	
INN3			0.736	
INN4			0.719	
SCC2				0.840
SCC3				0.826
SCC4				0.736
SCC1				0.861

Source: researcher processed data

The results of the outer loading assessment in Table 3 indicate that most indicators meet the minimum threshold of 0.70, confirming a satisfactory level of convergent validity across constructs (Hair et al., 2021). The variables of *Digital Readiness*, *Innovation*, and *Socio-Cultural Capital* demonstrate consistently high loadings, reflecting that respondents clearly understood and responded consistently to these dimensions. Interestingly, one indicator within *Entrepreneurial Learning* (EL1 = 0.607) showed a value slightly below the recommended level. Rather than removing it mechanically, this item was retained to preserve the conceptual richness of the construct. The indicator captures a critical dimension of reflective and experiential learning – an aspect often emphasized in entrepreneurial contexts where learning emerges through lived experience and social interaction (Cope, 2005; Politis, 2005). In line with Hair et al. (2021) and Henseler et al. (2016), retaining such an item is appropriate when the construct maintains composite reliability and theoretical consistency. This decision aligns with the study’s aim to balance statistical rigor and conceptual depth, ensuring that *Entrepreneurial Learning* reflects the nuanced learning behaviors of entrepreneurs in the socio-cultural settings of Eastern Indonesia.

Following the confirmation of indicator reliability through the outer loading analysis, the study proceeded to evaluate the internal consistency and convergent validity of the latent constructs. This stage aims to ensure that all items within each construct collectively measure the same underlying concept with sufficient coherence and stability. Construct reliability and validity were assessed using Cronbach’s alpha, composite reliability (CR), and average variance extracted (AVE), which together provide a robust indication of the model’s measurement quality (Hair et al., 2021; Henseler et al., 2016).

Table 4. Construct Reliability and Validity

Variable	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
Digital Readiness	0.909	0.936	0.787
Entrepreneurial Learning	0.874	0.919	0.746

Innovation	0.778	0.855	0.597
Socio-Cultural Capital	0.832	0.889	0.667

Source: researcher processed data

Table 4 presents the results of the construct reliability and convergent validity analysis for all latent variables. The results demonstrate that all constructs meet the recommended thresholds, indicating satisfactory measurement consistency and validity. The values of Cronbach’s alpha range from 0.778 to 0.909, exceeding the minimum acceptable level of 0.70 (Hair et al., 2021), suggesting that the items within each construct are internally consistent. Moreover, the composite reliability (CR) values fall between 0.855 and 0.936, further confirming strong construct reliability. The average variance extracted (AVE) values, ranging from 0.597 to 0.787, also surpass the benchmark of 0.50 (Fornell & Larcker, 1981), signifying adequate convergent validity and indicating that each construct explains more than half of the variance of its indicators. Among the constructs, *Digital Readiness* and *Entrepreneurial Learning* demonstrate the highest levels of internal reliability and variance extraction, reflecting their central role in the model. These results confirm that all constructs are statistically reliable and conceptually sound, providing a robust foundation for subsequent structural model testing.

To further confirm the distinctiveness of the constructs, discriminant validity was assessed using the Heterotrait-Monotrait Ratio (HTMT) approach proposed by Henseler et al. (2016). This criterion examines the extent to which a construct is truly unique and empirically distinct from other constructs in the model.

Table 5. Discriminant Validity Test

Construct Correlations	Heterotrait-monotrait ratio (HTMT)
Entrepreneurial Learning <-> Digital Readiness	0.736
Innovation <-> Digital Readiness	0.351
Innovation <-> Entrepreneurial Learning	0.449
Socio-Cultural Capital <-> Digital Readiness	0.491
Socio-Cultural Capital <-> Entrepreneurial Learning	0.636
Socio-Cultural Capital <-> Innovation	0.641

Source: researcher processed data

Table 5 presents the results of the discriminant validity test using the Heterotrait-Monotrait Ratio (HTMT), as recommended by Henseler et al (2016). The HTMT values range from 0.351 to 0.736, all of which fall well below the conservative threshold of 0.85 (Hair et al., 2021), confirming that each construct in the model is empirically distinct. These results demonstrate that the four latent variables, Socio-Cultural Capital, Entrepreneurial Learning, Digital Readiness, and Innovation, measure different conceptual domains without significant overlap. The relatively low inter-construct correlations, particularly between Innovation and Digital Readiness (0.351) and between Innovation and Entrepreneurial Learning (0.449), further indicate that respondents were able to distinguish between technological preparedness and the learning processes underpinning entrepreneurial behavior. Similarly, the moderate correlations between Socio-Cultural Capital and other constructs suggest a contextual influence of social norms and community-based values that complements, rather than conflates with, digital and learning dimensions. Overall, these findings provide strong empirical support for the discriminant validity of the measurement model, reinforcing its structural soundness for subsequent hypothesis testing.

After confirming the adequacy of the measurement model through the assessment of reliability and validity, the analysis proceeded to evaluate the structural model to test the proposed hypotheses. This stage examines the strength and significance of the relationships among the latent constructs using the bootstrapping procedure in SmartPLS. The results provide empirical evidence on how socio-cultural capital, entrepreneurial learning, and digital readiness interact to influence innovation among MSMEs in South Sulawesi.

Table 6. Bootstrapping Results

Variable Correlations	Original sample (O)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Socio-Cultural Capital -> Entrepreneurial Learning	0.549	0.042	13.105	0.000
Socio-Cultural Capital -> Entrepreneurial Learning -> Digital Readiness	0.360	0.035	10.309	0.000
Entrepreneurial Learning -> Digital Readiness -> Innovation	0.203	0.038	5.328	0.000
Socio-Cultural Capital -> Entrepreneurial Learning -> Digital Readiness -> Innovation	0.111	0.025	4.418	0.000

Source: researcher processed data

The results of the bootstrapping analysis presented in Table 6 indicate that all hypothesized indirect relationships are statistically significant at the 0.001 level, confirming the mediating role of entrepreneurial learning and digital readiness in the proposed model. Specifically, socio-cultural capital has a strong positive effect on entrepreneurial learning ($\beta = 0.549$, $t = 13.105$, $p < 0.001$), suggesting that cultural values embedded in local communities such as trust, cooperation, and social bonding enhance the learning orientation of entrepreneurs. This finding aligns with the argument of Zahra & Wright (2016), who emphasized that entrepreneurial learning is socially constructed through shared experiences and collective identity.

Furthermore, the indirect relationship between socio-cultural capital and digital readiness through entrepreneurial learning ($\beta = 0.360$, $t = 10.309$, $p < 0.001$) highlights how learning processes facilitate the translation of traditional socio-cultural assets into digital competence. This supports previous research indicating that the integration of cultural and learning capabilities fosters digital adaptability in small businesses (Del Giudice et al., 2021). The path from entrepreneurial learning to innovation mediated by digital readiness ($\beta = 0.203$, $t = 5.328$, $p < 0.001$) provides strong evidence that innovation emerges not only from technical readiness but also from the ability of entrepreneurs to continuously learn and apply digital knowledge. This finding is consistent with studies by Rialti et al. (2020) and Teece (2018), which argue that dynamic learning capability is a key antecedent of innovation in turbulent environments. Finally, the three-tier mediation socio-cultural capital, entrepreneurial learning, digital readiness, innovation ($\beta = 0.111$, $t = 4.418$, $p < 0.001$) confirms the integrative nature of the model, suggesting that innovation in the context of MSMEs in South Sulawesi is not a direct output of resource possession but rather a cumulative process that transforms social and cultural assets through learning and digital adaptation. These results provide a holistic explanation of how local wisdom and learning agility together shape the innovation capacity of entrepreneurs, especially in culturally rich and developing regions such as Eastern Indonesia.

The findings of this research emphasize that socio-cultural capital (SCC), when transmitted through entrepreneurial learning (EL) and digital readiness (DR), exerts a substantial indirect effect on innovation (INN) among MSMEs in South Sulawesi. This result illustrates that innovation in developing economies is not a linear outcome of material or technological resources but a complex socio-cognitive process shaped by cultural embeddedness, experiential learning, and digital adaptation. As such, the study positions culture as a productive asset rather than a constraint, reinforcing the argument that cultural context significantly influences entrepreneurial orientation and innovative outcomes (Dana et al., 2023; Liñán et al., 2022). The strong indirect effect between socio-cultural capital and entrepreneurial learning validates the premise that local social norms, trust, and shared community values foster collaborative learning behavior among entrepreneurs. This resonates with Bourdieu's (1986) concept of cultural capital, which views cultural and social resources as symbolic power that facilitates the acquisition and conversion of knowledge into economic advantage. Empirical evidence suggests that in collectivist societies, such as South Sulawesi, the relational bonds and kinship-based trust systems form a fertile ground for entrepreneurial learning through observation, imitation, and dialogue (Putnam, 2000; Thurik & Gartner, 2022). These findings align with recent research by Urbano et al. (2023), who demonstrated

that socio-cultural embeddedness stimulates informal knowledge transfer and strengthens innovation-driven entrepreneurial ecosystems.

Moreover, the mediating role of entrepreneurial learning between socio-cultural capital and digital readiness reinforces the argument that learning serves as a critical bridge between traditional knowledge and technological adaptation. Entrepreneurs who engage in continuous learning are better equipped to reinterpret cultural practices into digital competencies, creating what Teece (2018) describes as dynamic capabilities the ability to integrate, build, and reconfigure resources to adapt to rapid environmental changes. This finding is consistent with Del Giudice et al. (2021), who found that learning agility and digital literacy are central determinants of successful technological transformation in small firms. Similarly, Sotarauta et al. (2022) highlight that entrepreneurial learning acts as a cognitive infrastructure that enables entrepreneurs to absorb and operationalize technological knowledge, particularly in culturally dense regions. The significant path from entrepreneurial learning to digital readiness and subsequently to innovation underscores the interactive nature of innovation as a socially mediated process. Innovation in MSMEs often emerges through the co-evolution of knowledge and culture, where digital tools are not merely adopted but culturally assimilated (Rialti et al., 2020; Audretsch et al., 2022). In the context of South Sulawesi, innovation manifests through glocalization the fusion of traditional values and digital efficiency producing hybrid business models that sustain cultural identity while enhancing competitiveness (Baskaran & Muchie, 2018; García-Muiña et al., 2021). These findings confirm that innovation is not a mere technological output but a socially embedded construct that reflects the transformation of cultural capital into creative economic action.

Theoretically, this study contributes to integrating entrepreneurial ecosystem and cultural embeddedness theories by positioning socio-cultural capital as a dynamic antecedent of innovation rather than a static contextual variable. Prior studies have often treated culture as an external moderator (Liñán & Fayolle, 2015), whereas this research demonstrates its endogenous role within the innovation process through the mediation of learning and digital adaptation. This conceptual advancement enriches the understanding of how intangible resources operate within emerging economies, supporting the call by Ferreira et al. (2023) and Guerrero et al. (2021) for culturally grounded models of entrepreneurial innovation. From a practical perspective, the results suggest that fostering innovation in MSMEs requires more than digital infrastructure or financial incentives. Policymakers should instead emphasize cultural learning ecosystems that combine digital literacy training with local wisdom. The Ministry of Cooperatives and SMEs and regional governments could facilitate collaborative learning hubs that integrate community leaders, digital mentors, and educational institutions to promote context-specific innovation. Such an approach resonates with the inclusive innovation paradigm (George et al., 2022), which argues that sustainable innovation in developing economies emerges when cultural participation and digital empowerment converge. In conclusion, this study reinforces the idea that innovation in culturally rich regions such as South Sulawesi is not achieved by abandoning traditions but by transforming them through learning and digital recontextualization. Socio-cultural capital, when mobilized through entrepreneurial learning, acts as a cognitive and relational bridge connecting the past to the digital future. This transformation not only enhances firm-level innovation but also contributes to the broader discourse on culturally inclusive and sustainable entrepreneurship.

Conclusion

This study highlights that an effective innovation model for MSMEs in South Sulawesi is built through the synergy of *socio-cultural capital*, *entrepreneurial learning*, and *digital readiness*.

The findings reveal that innovation does not emerge solely from technological investment but from the ability to transform social and cultural values into entrepreneurial learning that adapts to digital transformation. Thus, innovation in this context is *cultural-driven* and *learning-oriented*, where socio-cultural capital serves as the foundation for developing digital readiness and creative capabilities among entrepreneurs. Theoretically, this research enriches the *contextual innovation model* by positioning culture and learning as the primary engines of transformation.

Practically, the findings suggest that building innovation should not only emphasize technological efficiency but also the preservation and transformation of local values as sustainable sources of competitive advantage. By integrating culture, learning, and digitalization, MSMEs in regions like South Sulawesi can create inclusive and contextually relevant innovations deeply rooted in their social identity and cultural heritage.

Acknowledgment

This manuscript was compiled by the researcher and team as a form of research development and learning reference material in the field of management, specifically human resource and business management. All processes, implementation, and financing were carried out independently.

References :

- Alegre, J., & Chiva, R. (2013). Linking entrepreneurial orientation and firm performance: The role of organizational learning capability and innovation performance. *Journal of Small Business Management*, 51(4), 491-507. <https://doi.org/10.1111/jsbm.12005>
- Akbari, M., Chitsazan, H., & Reza, A. (2022). Socio-cultural factors affecting entrepreneurial intention in emerging economies. *Entrepreneurship Research Journal*, 12(2), 225-243. <https://doi.org/10.1515/erj-2020-0059>
- Audretsch, D. B., Belitski, M., & Caiazza, R. (2022). Knowledge management and entrepreneurship: From local clusters to global innovation networks. *Journal of Knowledge Management*, 26(1), 1-12. <https://doi.org/10.1108/JKM-06-2021-0451>
- Baskaran, A., & Muchie, M. (2018). Open innovation and inclusive development: Toward a new paradigm of innovation systems in developing countries. *African Journal of Science, Technology, Innovation and Development*, 10(5), 557-569. <https://doi.org/10.1080/20421338.2018.1495992>
- Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of Theory and Research for the Sociology of Education* (pp. 241-258). Greenwood.
- Bresciani, S., Ferraris, A., & Del Giudice, M. (2022). The management of organizational ambidexterity: From social capital to innovation. *Journal of Business Research*, 145, 155-166. <https://doi.org/10.1016/j.jbusres.2022.02.038>
- Cope, J. (2005). Toward a dynamic learning perspective of entrepreneurship. *Entrepreneurship Theory and Practice*, 29(4), 373-397. <https://doi.org/10.1111/j.1540-6520.2005.00090.x>
- Dabić, M., Vlačić, B., Paul, J., & Dana, L.-P. (2021). Immigrant entrepreneurship: A review and research agenda. *Technological Forecasting and Social Change*, 166, 120653. <https://doi.org/10.1016/j.techfore.2021.120653>
- Dana, L.-P., & Ramadani, V. (2015). *Family Businesses in Transition Economies: Management, Succession and Internationalization*. Springer. <https://doi.org/10.1007/978-3-662-44546-6>
- Dana, L.-P., Salamzadeh, A., & Ramadani, V. (2023). Cultural entrepreneurship in developing economies: Toward a conceptual framework. *International Journal of Entrepreneurial Behavior & Research*, 29(6), 1400-1419. <https://doi.org/10.1108/IJEBR-09-2022-0867>
- Del Giudice, M., Scutto, V., Papa, A., Tarba, S. Y., & Bresciani, S. (2021). Digital transformation and innovation in SMEs: A resource-based view. *Journal of Business Research*, 123, 1-14. <https://doi.org/10.1016/j.jbusres.2020.09.037>
- Ferreira, J. J., Fernandes, C. I., & Kraus, S. (2023). The future of entrepreneurship research: Challenges and opportunities. *Journal of Business Research*, 153, 1-9. <https://doi.org/10.1016/j.jbusres.2022.11.019>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>
- García-Muiña, F. E., Medina-Salgado, S., Ferrari, A. M., & Cucchi, M. (2021). Sustainability transition in industry 4.0 and smart manufacturing with the triple bottom line. *Journal of Cleaner Production*, 297, 126526. <https://doi.org/10.1016/j.jclepro.2021.126526>
- George, G., McGahan, A. M., & Prabhu, J. (2022). Inclusive innovation for sustainable development: Theory and practice. *Nature Sustainability*, 5, 995-1002. <https://doi.org/10.1038/s41893-022-00964-6>
- Guerrero, M., Liñán, F., & Dabic, M. (2021). Entrepreneurship ecosystems in developing regions: Contextualizing new venture creation. *Entrepreneurship & Regional Development*, 33(1-2), 1-15. <https://doi.org/10.1080/08985626.2020.1820277>

- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (3rd ed.). Sage Publications.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2016). Testing measurement invariance of composites using partial least squares. *International marketing review*, 33(3), 405-431.
- Hurley, R., & Hult, G. (1998). Innovation, Market Orientation, and Organizational Learning: An Integration and Empirical Examination. *Journal of Marketing*, 62, 42-54. <https://doi.org/10.1177/002224299806200303>
- Khalid, S., Mehmood, B., & Khan, M. M. (2023). Entrepreneurial learning as a driver of innovation capability: Evidence from developing economies. *Management Decision*, 61(4), 957-975. <https://doi.org/10.1108/MD-07-2021-0904>
- Khan, T., Khan, K. D., Azhar, M. S., Shah, S. N. A., Uddin, M. M., & Khan, T. H. (2022). Mobile health services and the elderly: Assessing the determinants of technology adoption readiness in Pakistan. *Journal of Public Affairs*, 22(4), e2685.
- Kline, R. B. (2023). *Principles and practice of structural equation modeling*. Guilford publications.
- Kraus, S., Durst, S., Ferreira, J. J., Veiga, P. M., & Kailer, N. (2022). Digital transformation and dynamic capabilities in small firms: A research agenda. *Journal of Small Business Management*, 60(5), 1055-1078. <https://doi.org/10.1080/00472778.2021.1877723>
- Li, Y., Mirzayeva, G., & Ferreira, J. J. (2023). Digitalization and entrepreneurship in emerging economies: A review and research agenda. *Technological Forecasting and Social Change*, 192, 122565. <https://doi.org/10.1016/j.techfore.2023.122565>
- Liñán, F., & Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: Citation, thematic analyses, and research agenda. *International Entrepreneurship and Management Journal*, 11(4), 907-933. <https://doi.org/10.1007/s11365-015-0356-5>
- Liñán, F., Urbano, D., & Guerrero, M. (2022). Entrepreneurial ecosystem evolution: Drivers and outcomes in emerging economies. *Small Business Economics*, 59(1), 103-120. <https://doi.org/10.1007/s11187-021-00573-y>
- Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education*, 74, 5-12. <https://doi.org/10.1002/ace.7401>
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242-266. <https://doi.org/10.2307/259373>
- Politis, D. (2005). The process of entrepreneurial learning: A conceptual framework. *Entrepreneurship theory and practice*, 29(4), 399-424.
- Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. Simon & Schuster.
- Rae, D. (2006). Entrepreneurial learning: Conceptual frameworks and applications. *Entrepreneurship & Innovation*, 7(4), 229-236. <https://doi.org/10.5367/000000006778702082>
- Ramadani, V., Dabić, M., & Dana, L.-P. (2023). Contextualizing entrepreneurship in developing economies: Cultural, institutional, and digital perspectives. *Entrepreneurship Research Journal*, 13(3), 547-564. <https://doi.org/10.1515/erj-2021-0374>
- Rialti, R., Marzi, G., Ciappei, C., & Busso, D. (2020). Digital learning in organizations and innovation outcomes: A systematic review. *Journal of Business Research*, 123, 1-13. <https://doi.org/10.1016/j.jbusres.2020.09.031>
- Santoro, G., Mazzoleni, A., Quaglia, R., & Solima, L. (2023). Digital transformation, innovation, and knowledge management: Evidence from SMEs. *Technovation*, 118, 102631. <https://doi.org/10.1016/j.technovation.2022.102631>
- Sotarauta, M., Beer, A., & Gibney, J. (2022). Place leadership and innovation in peripheral regions: Rethinking governance, policy, and learning. *Regional Studies*, 56(2), 189-201. <https://doi.org/10.1080/00343404.2021.1894904>
- Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, 51(1), 40-49. <https://doi.org/10.1016/j.lrp.2017.06.007>
- Thurik, R., & Gartner, W. (2022). Beyond the individual: The role of social capital in entrepreneurship. *Small Business Economics*, 58(3), 1217-1225. <https://doi.org/10.1007/s11187-021-00544-3>
- Urbano, D., Aparicio, S., & Audretsch, D. B. (2020). Twenty-five years of research on institutions, entrepreneurship, and economic growth: What has been learned? *Small Business Economics*, 53(1), 21-49. <https://doi.org/10.1007/s11187-018-0038-0>
- Urbano, D., Guerrero, M., & Ferreira, J. J. (2023). How social capital fosters innovation in entrepreneurial ecosystems: Evidence from emerging economies. *Journal of Technology Transfer*, 48(3), 987-1008. <https://doi.org/10.1007/s10961-022-09945-y>

- Wang, C. L., & Chugh, H. (2014). Entrepreneurial learning: Past research and future challenges. *International Journal of Management Reviews*, 16(1), 24-61. <https://doi.org/10.1111/ijmr.12007>
- Yu, X., Li, Y., & Kraus, S. (2023). Digital transformation, entrepreneurial learning, and firm innovation: Evidence from SMEs in developing countries. *Technological Forecasting and Social Change*, 191, 122519. <https://doi.org/10.1016/j.techfore.2023.122519>
- Zahoor, N., Al-Tabbaa, O., & Anchah, L. (2022). Dynamic capabilities and digital transformation: A systematic review. *Technovation*, 114, 102674. <https://doi.org/10.1016/j.technovation.2022.102674>
- Zahra, S. A., & Wright, M. (2016). Understanding the social role of entrepreneurship. *Journal of Management Studies*, 53(4), 610-629. <https://doi.org/10.1111/joms.12149>