A Narrative Review on the Impacts of Digital Literacy and Social Capital on the Innovation Performance of Cultural Enterprises

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Abstract

Amid the rapid global growth of the cultural and creative economy, China's cultural industry has emerged as a key driver of regional economic transformation, fueled by policy support, digital technology, and consumption upgrades. Small and micro cultural enterprises, now accounting for over 84% of the sector, play a critical role in cultural innovation but face persistent structural challenges that hinder their innovation performance. This narrative review, based on Web of Science and Scopus literature, integrates Resource-Based Theory and Social Network Theory to propose a "Resource-Network-Platform" framework, revealing how digital literacy and social capital dynamically interact to enhance innovation performance within cultural industry clusters. Based on the dual logics of resources and networks, this study proposed an integrative theoretical model of innovation in SMEs of cultural enterprises so as to build foundation for future empirical studies. Findings highlight a dynamic coupling mechanism between internal capabilities and external networks, offering theoretical insights and practical guidance for cluster governance, platform development, and enterprise digital capacity building, while paving the way for cross-theoretical research in cultural industries. Unlike previous studies solely stand from a single perspective, this study emphasizes the dynamic, systemic value of theoretical intersections in explaining innovation mechanisms in SMEs.

Keywords: Social capital, Digital literacy, Innovation performance, Cultural industry clusters, Collaborative innovation platforms

Introduction

Against the backdrop of the accelerated development of the global cultural and creative economy, the cultural industry is increasingly becoming an important engine for driving the transformation of regional economic structures. In China, driven by multiple factors including policy support, deep penetration of digital technologies, and consumption upgrades, the cultural industry continues to release new economic and social values. Its added value as a proportion of GDP shows a year-on-year increase, gradually evolving into a new industrial system that integrates creative content, digital technologies, and cultural services (Ministry of Commerce General Office, 2024). In this process, small and micro cultural enterprises, with their flexibility and innovative vitality, have become key components of cultural industry clusters. People's Daily Overseas Edition (2023) reported that the number of small and micro cultural enterprises in China now accounts for over 84% of the total number of cultural enterprises, actively participating in core business areas such as content creation, design development, and digital communication, and playing an indispensable role in promoting cultural and creative innovation. However, these enterprises generally face structural challenges such as limited access to resources, weak financing capabilities, and a lack of collaborative networks, leading to significant instability in their innovation performance. As an important spatial organizational form, cultural industry clusters provide a platform environment for knowledge transfer, resource collaboration, and joint innovation by promoting geographical proximity and relational embedding among internal enterprises. Theoretically, clusters offer small and micro cultural enterprises potential resource channels and cooperation networks, serving as a key intermediary mechanism for enhancing their innovation capabilities. Nevertheless, existing research is often confined to a single theoretical perspective—either focusing on internal resource endowments of enterprises or emphasizing external network structures—while discussions on the integrative mechanisms for systematically achieving innovation performance within cluster environments for small and micro cultural enterprises are still insufficient. Therefore, this study aims to integrate Resource-Based Theory and Social Network Theory, and, based on a systematic review of the latest research literature indexed in authoritative databases such as Web of Science and Scopus, constructs an analytical framework of "resources—networks—platforms" in a collaborative triadic model.

Research objective

To integrate Resource-Based Theory and Social Network Theory to construct an integrative and analytical framework.

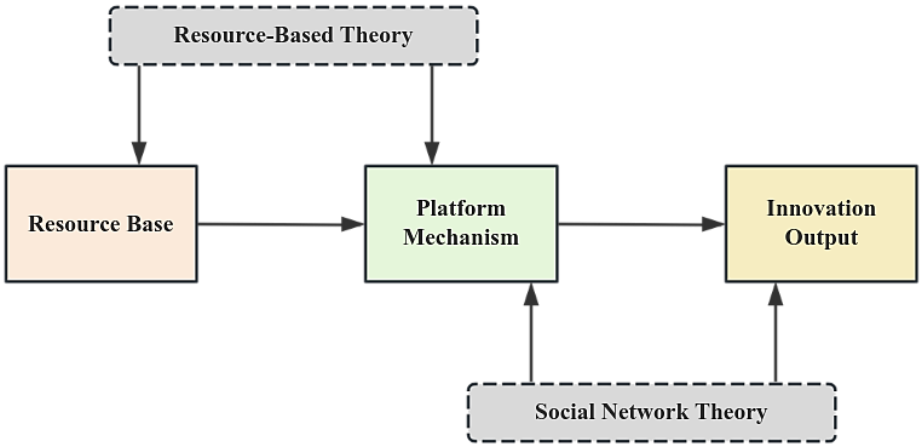

Figure 1 Conceptual Framework (Source : Researcher, 2025)

Methodology

This study utilizes a narrative review approach, which is a qualitative and non-systematic method. The review is based on literature indexed in authoritative databases, specifically Web of Science and Scopus.

Search Strategy

The search strategy involved identifying key terms such as "social capital," "digital literacy," "innovation performance," "cultural industry clusters," and "collaborative innovation platforms." These terms were combined with theoretical frameworks like Resource-Based Theory and Social Network Theory. Inclusion criteria prioritized peer-reviewed articles and books that explored the intersection of resources, networks, and platforms within management, sociology, and cultural studies. The focus was on recent publications (post-2010) to reflect evolving digital and cluster dynamics.

Literature Screening Procedure

The screening process was conducted in three stages. The initial screening is to filter out irrelevant based on their titles and abstracts. Followed by full-text review, so the full text of the remaining articles was read to ensure they had a clear research objective, theoretical support, and defined variable relationships. Final exclusion is to exclude conference abstracts, book reviews, non-academic papers, and duplicate studies. Ultimately, a total of 59 English-language papers were included, comprising theoretical studies, empirical research, and comprehensive review articles. This study did not use a strict, predefined protocol. Instead, the research questions were refined to ensure a comprehensive understanding of the mechanisms influencing innovation. The selection process emphasized studies from diverse fields to capture multidimensional perspectives. This approach prioritize critical interpretation over exhaustive reproducibility, which aligns with nature of narrative reviews.

Results

Literature Review and Results:

This section presents the study's theoretical findings, which integrate the comprehensive literature review to contextualize the 'Resource-Network-Platform' framework.

Theoretical Foundation and Core Concepts

When exploring the innovation behavior mechanisms of small and micro cultural enterprises within cultural industry clusters, Resource-Based Theory (RBT) and Social Network Theory (SNT) are two widely used core theoretical perspectives. The former emphasizes how enterprises build sustained competitive advantage through internal resources characterized by scarcity and heterogeneity, while the latter focuses on how organizations access external resources and achieve knowledge collaboration after being embedded in social relational networks.

Resource-Based Theory (RBT)

The Resource-Based Theory (RBT), formally proposed by Barney in 1991, suggests that a firm's sustained competitive advantage arises from its rare and inimitable key resources. In strategic management, RBT emphasizes four main characteristics of internal resources:

value (Valuable), rarity (Rare), inimitability (Inimitable), and non-substitutability (Non-substitutable), which together form the VRIN framework. This theory reveals the underlying reasons for performance differences between organizations. Over time, RBT has evolved from a static resource view to a dynamic perspective. Scholars like Teece et al. (1997) further developed the dynamic capabilities framework, which posits that firms need to integrate, reconfigure, and allocate resources in complex environments to achieve sustainable competitive advantage. This has expanded RBT's capacity to explain evolutionary strategic behavior.

In cultural industry clusters, small and micro-sized cultural enterprises, as key players in the cluster, typically have high creative potential and organizational flexibility. However, they face challenges like resource scarcity and financing difficulties. RBT provides theoretical support for understanding how these firms build innovation capabilities through internal resources. For example, digital literacy, as a key technological resource, not only reflects a firm's ability to use information tools but also influences its efficiency in information processing, content creation, and collaboration in a platform environment. Furthermore, as the innovation paradigm shifts toward collaborative platforms and cross- organizational collaboration, traditional RBT must also account for how firms enhance their capabilities by acquiring external resources. Recent studies have gradually recognized that firm resources are not entirely internally generated but are embedded in broader social networks, including access to knowledge, trust, and cooperation through social capital (Willie, 2024). In a cluster environment, the pathways for resource acquisition, integration capabilities, and platform participation mechanisms form the key mechanisms for the innovative performance of small and micro cultural enterprises. RBT can serve as the foundational theory to explain this mechanism, but it needs to incorporate an external dimension, focusing on how resources flow and are collaboratively utilized within the cluster ecosystem.

Social Network Theory (SNT)

Social Network Theory, originally proposed by Granovetter (1973), emphasizes the embeddedness of organizations within social relationship networks and the mechanisms through which these networks influence resource flows. The theory put forward that an organization’s position within the network including its centrality, structural holes, the type of relationships where ties are strong or weak , and the whether structural characteristics is closed or open, all determines its access to resources and innovation capabilities (Borgatti & Halgin, 2011). As the theory has developed, its explanatory scope has expanded. Burt (1992) extended the structural holes theory to reveal the competitive advantage of non-redundant connections. Later on, Nahapiet and Ghoshal (1998) proposed a three-dimensional model of social capital , which is structural, relational, and cognitive embeddedness, offering a systematic analysis of the efficiency logic of network cooperation. Further studies in 2018 when the digital age have introduced, the concept of "network overlay" highlighted the role of digital literacy in reshaping network power (Nambisan et al., 2018).

When it comes to cultural industry clusters, SNT provides a crucial analytical framework. For example, Li & Yu (2022) said that cluster firms leverage network centrality to control resource channels; Wen et al., (2021) used structural holes to bridge heterogeneous knowledge , and Ju & Wang (2023) think that it balanced trust-building and open innovation through network closure . In sum, these network attributes directly shape the collaborative efficiency and value distribution power of firms in domain of the innovation ecosystem with particular relevance to the platform-based collaboration when it comes to small and micro cultural enterprises.

The Conceptualization and Key Dimensions of Social Capital

Through a comprehensive review of literature, it is evident that scholars have applied Social Capital Theory across various fields, including sociology (Huang, 2016), political science (Makridis & Wu, 2021), education (Benbow & Lee, 2019), and management (Brown & Van Buren, 2007). Coleman (1988) argues that, regardless of the type of capital, it is created through changes in existing structures during the value creation process, and these changes lead to positive relational outcomes.

In clusters, dense social networks facilitate cooperation, enhancing knowledge sharing, information transfer, and continuous innovation (Kim & Shim, 2018). However, strengthening solidarity within groups can sometimes limit the flexibility needed for local community development (Woolcock, 1998). Uhlaner et al. (2015) emphasized that relational capital contributes to the success of regional clusters by providing small and medium-sized enterprises (SMEs) with knowledge, resources, and opportunities. Hashim et al. (2015) further developed that the sustained willingness of network members to share knowledge have relation with their emotional engagement and trust for the community.

Cognitive social capital was defined to have shared visions, norms, rules, collective narratives, languages, and vocabularies, which foster the creation and sharing of new knowledge (Inkpen & Tsang, 2005). García-Villaverde et al. (2018) explored the relationship between structural social capital and knowledge acquisition in clusters, highlighting the importance of the cognitive and relational dimensions of cluster membership. Liu (2018) examined the mechanisms of knowledge transfer and how various attributes of social capital interact with firms in the cultural and creative industries, revealing the bridge role of organizational learning between social capital and knowledge transfer. Their findings suggest that structural social capital indirectly influences knowledge acquisition through the relationship and cognitive dimensions of cluster members. García-Villaverde et al. (2021) further explored the moderating role of closed and diverse relationships in the tourism cluster, discovering that firms in the cluster gain significant benefits by cultivating social capital to enhance market vitality and entrepreneurial orientation.

The Conceptual Definition and Key Dimensions of Digital Literacy

The connotation of digital literacy has continuously deepened and expanded with the development of digital technologies and the improvement of people's cognitive levels. As early as the 1990s, Lanham (1995) began using the term digital literacy. At that time, computers and multimedia were developing rapidly, and the initial meaning of digital literacy referred to the ability to read and understand multimedia content. Some scholars also referred to it as media literacy or computer literacy. With the revolution of the internet and the changes of the times, the concept of digital literacy has gradually become more enriched and extended. Currently, there is no unified definition in academia. Compared with the definition of digital literacy, the measurement dimensions of digital literacy are more closely aligned with reality and are easier to understand, and relevant scholars have formed different definitions of digital literacy from different dimensions with varying focal points.

Table 1 Summary of Digital Literacy Dimensions

Author	Dimensions
Eshet (2012)	Photo-visual thinking, real-time thinking, information thinking, branching thinking, reproduction thinking, socio-emotional thinking
Heitin (2016)	Finding and consuming digital content, creating digital content, communicating or sharing digital content
ECDL Foundation (2018)	Information, communication, content creation, safety awareness, and problem-solving
Eden and Eshet-Alkalai (2013)	Photo-visual digital skills, reproduction digital skills, branching digital skills, information digital skills, socio-emotional digital skills, and real-time thinking skills
Santoso et al. (2019) Calvani et al. (2008) Ng (2012)	Technical dimension, cognitive dimension, and socio-emotional dimension
Martin &Grudziecki (2006)	Generic digital literacy, professional digital literacy, digital innovation literacy
Law et al. (2018)	Computer literacy, ICT literacy, information literacy, and media literacy

Impact of Social Capital on Innovation Performance

Social capital, as an important resource for enterprise innovation, influences innovation performance primarily through three dimensions: structural social capital, relational social capital, and cognitive social capital. According to Martínez-Cañas et al. (2012), structural social capital helps firms acquire key knowledge and scarce resources necessary for innovation by enhancing their position and influence within networks. Alguezaui & Filieri (2010a) further pointed out that the size and centrality of a social network significantly affect innovation performance. Relational social capital facilitates knowledge exchange through trust and norms, and Cappiello et al. (2020) found that trust stimulates cooperation willingness and reduces transaction risks (Ganguly et al., 2019). Cognitive social capital promotes knowledge transfer through shared language and values, with Nahapiet & Ghoshal (1998) emphasizing its crucial role in collaboration. Kannadhasan et al. (2018) also pointed out that a shared understanding of task goals enhances innovation performance. Additionally, Kim & Shim (2018) studied SMEs in the Korean tourism cluster and found that social capital significantly enhances competitiveness through knowledge sharing. Singh et al. (2021), through data analysis from multinational enterprises in emerging markets, concluded that social capital has a positive impact on innovation performance. Tang et al. (2014a) explored how social capital improves innovation performance through failure learning mechanisms. Lyu et al. (2022), in their study of Chinese digital enterprises, found that social capital significantly impacts innovation performance through cross-border knowledge search and absorption capabilities.

Table 2 Social Capital and Innovation Performance

Author	Application of Social Capital	Social Capital Dimension	Results
Martínez-Cañas et al. (2012)	Social capital → knowledge acquisition → corporate innovation	Relational, Cognitive, Structural	Results partially support the impact of social capital on corporate innovation.
Kim and Shim (2018)	Social capital → knowledge sharing → innovation	Relational, Cognitive, Structural	Social capital is critical for improving the competitiveness of SMEs.
Singh et al. (2021)	Social capital → knowledge sharing → innovation performance	Social Capital	Results partially support the impact of social capital on innovation performance.
Cappiello et al. (2020)	Social capital → engagement → innovation performance	Relational, Cognitive, Structural	Results partially support the impact of social capital on innovation performance, but the relational dimension was not significantly associated.
Tang et al. (2014b)	Social capital → learning from failure → innovation performance	Relational, Cognitive, Structural	Social capital has a significant positive impact on innovation performance.
Kannadhasan et al. (2018)	Social capital → self-efficacy → new ventures	Relational, Cognitive, Structural	Social capital impacts innovation performance, but the relational dimension was not significantly associated.
Ganguly et al. (2019)	Social capital → tacit knowledge sharing → innovation capability	Relational, Cognitive, Structural	Social capital plays an important role in organizational innovation capability.
Lyu, Peng, Yang, Li, Gu, et al. (2022)	Social capital → cross-border knowledge search, absorptive capacity → innovation performance	Relational, Cognitive, Structural	Social capital in digital enterprises has a significant positive impact on innovation performance.
Alguezaui and Filieri (2010b)	Social capital → innovation performance	Relational, Cognitive, Structural	Social networks may also exhibit negative consequences.

Impact of Digital Literacy on Innovation Performance

Digital literacy, as an important component of enterprise resources, influences innovation performance mainly by enhancing information retrieval, processing, and communication capabilities. Martin & Grudziecki (2006) define digital literacy as an individual's comprehensive ability to integrate and communicate information using digital technologies. Ng (2012) further divides it into three dimensions: technical, cognitive, and socio-emotional. Eshet (2012) highlights that these dimensions support tool usage, information evaluation, and collaboration skills, respectively. In the cultural industry, digital literacy is

particularly crucial because it relies on digital technologies for content creation and dissemination. In the literature, Mohammadyari & Singh (2015) studied the impact of digital literacy on individual performance in e-learning, Cetindamar & Abedin (2021) explored how employees' digital literacy affects digital technology usage, and Deschênes et al. (2024) analyzed the collaborative role of digital literacy in hybrid work environments. These studies indirectly suggest that digital literacy, by facilitating knowledge sharing and technology acceptance, may enhance innovation performance.

Interaction between Digital Literacy and Social Capital

The interaction between digital literacy and social capital is primarily reflected in digital literacy enhancing a firm's participation in social networks and its ability to utilize resources. In the literature, Burt (1992) introduced the concept of structural holes, suggesting that firms with high digital literacy can leverage "network overlay" effects to occupy structural hole positions. This means that digital literacy helps firms build and maintain social relationships more effectively so as to access heterogeneous resources. Nahapiet & Ghoshal (1998) highlighted that social capital provides support through trust and norms, which means digital literacy facilitates the effective utilization of these relationships through digital tools. This interaction is particularly evident in collaborative innovation platforms. Studies by Ramaswamy & Gouillart (2010) and later on Tsou et al. (2015) showed that digital literacy promotes collaboration on platforms, while social capital ensures the establishment of trust and norms. In sum, existing literature point out that digital literacy enables firms to integrate external resources more efficiently, at the same time when social capital provides support through relational networks. The two elements mutually reinforce each other, jointly driving innovation performance.

Role of Collaborative Innovation Platforms

The literature defines collaborative innovation as the creation of value through cooperation among multiple stakeholders via networks or platforms. Ramaswamy & Gouillart (2010) emphasized resource complementarity and organizational interaction. The literature points out that platforms enhance trust by establishing shared rules and norms, thereby promoting innovation. Tsou et al. (2015) analyzed the role of platforms from the perspectives of communication and services, while Related studies highlight the significant role of platforms in industrial clusters and innovation ecosystems. For small and micro cultural enterprises, platforms are a key mechanism for crossing technological and market boundaries (Watson et al., 2018), and through cooperation and interaction, they deepen the understanding of the characteristics of cultural enterprises (Pearce, 2022). Cui et al. (2021) demonstrated that platforms help enterprises integrate knowledge and overcome resource limitations by collaborating with universities, suppliers, and other partners. In sum, collaborative innovation platforms provide small and micro-sized cultural enterprises with spaces for resource sharing and knowledge collaboration, making them particularly suitable for resource-constrained businesses.

Results

Drawing on existing literature, this study integrates Resource-Based Theory and Social Network Theory to build the 'Resource-Network-Platform' triadic collaborative model focusing on the innovation behaviors of small and micro-sized cultural enterprises within cultural industry clusters. At the theoretical level, this research addresses the long-standing division between "internal capability theory" and "external relationship theory" in innovation studies, proposing that a dynamic coupling mechanism exists between the two paths, where resource endowment and network embedding can mutually promote each other within the

platform mechanism. By introducing platform participation variables, this paper incorporates the collaborative interaction mechanisms between enterprises in the digital context into the theoretical framework, extending the explanatory boundaries of traditional innovation theories to organizational behavior in the digital platform era. At the practical level, this study offers significant reference value for the governance of cultural industry clusters, platform construction, and capacity enhancement of small and micro-sized enterprises. On one hand, cluster managers and policymakers should focus on building platform-based intermediary mechanisms in resource allocation, facilitating channels for policy support, factor flow, and knowledge sharing. On the other hand, small and micro-sized cultural enterprises should enhance their digital literacy and platform collaboration abilities, and proactively build high-quality cooperative networks to achieve resource coordination and capacity upgrading. Moreover, the research findings provide governance references for platform-based organizations. That is to suggest that through mechanism design, we can enhance resource matching efficiency and collaboration stickiness, thereby building a sustainable innovation ecosystem.

Discussions

The suggested Resource–Network–Platform (RNP) framework addresses the problem of fragmented attention to innovation in small and micro cultural enterprises. As, it proposes a form of dynamic coupling, in which resources and capabilities interact with network forms—such as weak ties, structural positions, cognitive alignment, and relational social capital (Granovetter, 1973; Nahapiet & Ghoshal, 1998). These interactions are then amplified through platform governance, which shifts the innovation logic from the classic era to the platform era. Within industrial clusters, such coupling provides a more comprehensive explanation than pluralistic-lens approaches. This is because it simultaneously integrates firm-level resources, inter-organizational knowledge, and the processes through which markets are socially and institutionally constructed. The interaction between digital literacy and social capital is primarily reflected in digital literacy enhancing a firm's participation in social networks and its ability to utilize resources. As pointed out earlier, Burt (1992) introduced the concept of structural holes, suggesting that firms with high digital literacy can leverage "network overlay" effects to occupy structural hole positions. This means that digital literacy helps firms build and maintain social relationships more effectively so as to access heterogeneous resources. Nahapiet & Ghoshal (1998) highlighted that social capital provides support through trust and norms, which means digital literacy facilitates the effective utilization of these relationships through digital tools. This interaction is particularly evident in collaborative innovation platforms. Studies by Ramaswamy & Gouillart (2010) and later on Tsou et al. (2015) showed that digital literacy promotes collaboration on platforms, while social capital ensures the establishment of trust and norms. In sum, existing literature point out that digital literacy enables firms to integrate external resources more efficiently, at the same time when social capital provides support through relational networks. The two elements mutually reinforce each other, jointly driving innovation performance. For small and micro cultural enterprises, platforms are a key mechanism for crossing technological and market boundaries (Watson et al., 2018), and through cooperation and interaction, they deepen the understanding of the characteristics of cultural enterprises (Pearce, 2022). Cui et al. (2021) demonstrated that platforms help enterprises integrate knowledge and overcome resource limitations by collaborating with universities, suppliers, and other partners. This extended framework emphasizes the role of collaborative innovation platforms in amplifying the effects of resource-network interactions, offering a practical pathway for cluster governance to enhance innovation ecosystems.

Conclusion and suggestions

This study offers an analytical paradigm for future cross-theoretical integration research, constructing mechanism models based on structural reviews and extrapolating theory from contextual adaptation. This approach contributes to advancing the diversification and integration of research paradigms in the cultural and creative industries. However, it should be noted that this study is primarily based on a systematic review of relevant literature from databases such as Web of Science and Scopus, which may have limitations in the selection of literature. For instance, the coverage of non-English literature or studies from specific regions , such as local cultural industry clusters, which may be insufficient. Therefore, the "Resource-Network-Platform" collaborative mechanism model proposed in this paper mainly reflects the analytical conclusions of current literature. Future research could further update research methods by adopting in-depth case studies, surveys, social network analysis, or quasi-experimental designs to verify and analyze cluster cases in different cultural contexts, providing more robust data and empirical evidence to refine and the theoretical framework and reveal the specific operational mechanisms and effects of the model in complex, dynamic real-world situations.

New knowledge and the effects on society and communities

At the micro level, this article serves as the preliminary stage of a deeper research to lay the theoretical foundation for subsequent empirical quantitative analysis. From a macro perspective, the integrative framework aims to address the fragmentation and path divergence in current research, so as to offer systematic theoretical support to deepen the theoretical understanding and provide guidance for the innovative practices of small and micro cultural enterprises.

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