

A Comprehensive Literature Review on Enterprise Resilience: An Integrated Analysis from Capability, Strategic Management, and Supply Chain Perspectives

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Abstract: Against the backdrop of global economic turbulence, accelerated technological transformation, and increasingly frequent supply chain disruptions, enterprise resilience has become a critical capability enabling organizations to survive, recover, and achieve transformative growth. Over the past two decades, research on enterprise resilience has evolved from early discussions on risk management and organizational reliability to broader perspectives encompassing dynamic capabilities, strategic flexibility, digital governance, and supply chain network systems. Drawing upon international scholarly work as well as studies rooted in the Chinese context, this paper systematically reviews resilience through three core perspectives—capability foundations, strategic and managerial mechanisms, and supply chain network structures—to reveal its conceptual evolution, mechanisms of influence, and theoretical development trajectories. The review shows that enterprise resilience is shifting from a static risk-buffering capability toward a dynamic and systemic developmental capacity. Digital technologies, platform ecosystems, and intelligent governance are emerging as new drivers of resilience building. Meanwhile, the institutional logic, industrial-chain collaboration, and digital infrastructure characterizing the Chinese context have shaped a distinct trajectory of resilience development compared with Western paradigms. Finally, this paper identifies several unresolved issues in current research—such as fragmented mechanisms, inconsistent measurement, and insufficient theoretical grounding in Chinese contexts—and proposes future directions including dynamic evolutionary modeling, digital resilience frameworks, system-level supply chain resilience, and localized theoretical construction. The paper provides a synthesized overview and theoretical insights for advancing resilience theory and improving managerial practice.

Keywords: Enterprise Resilience, Dynamic Capabilities, Supply Chain Resilience, Digital Transformation, Organizational Management

1. Introduction

As globalization deepens and environmental uncertainty intensifies, enterprise resilience has emerged as an important topic in management research. Following major shocks such as the 2008 financial crisis, escalating geopolitical tensions, and the COVID-19 pandemic, how firms navigate uncertainty and maintain competitive advantage during crises has become a central concern for scholars and practitioners alike.^[1] Concurrently, rapid digitalization is reshaping organizational structures, resource allocation mechanisms, and supply chain collaboration, pushing resilience research beyond traditional risk management frameworks toward data-driven, intelligent, and ecosystem-oriented structures.

Despite the increasing volume of studies on enterprise resilience, consensus on its conceptual boundaries, theoretical foundations, and measurement approaches remains limited. Particularly in the Chinese context—characterized by unique governance arrangements, industrial-chain configurations, and digital economic conditions—the generative mechanisms of resilience exhibit distinct patterns compared with Western research. Against this backdrop, this paper conducts a systematic literature review from three major perspectives—capabilities, strategy and management, and supply chain networks—while integrating insights from Chinese studies to identify research trends, theoretical contributions, and future directions.

2. Literature Review on Enterprise Resilience

Enterprise resilience refers to a firm's integrated ability to maintain functionality, withstand shocks, recover, and even achieve transformative advancement in turbulent environments. As global uncertainty increases, cross-regional supply chain dependencies deepen, and technological change accelerates, resilience research has expanded from a narrow risk management focus toward a multidimensional, systemic, and embedded construct. Over the past two decades, its theoretical foundations, conceptual connotations, mechanisms, and pathways of development have evolved substantially.^[2]

Based on a review of both international literature and Chinese studies, this paper proposes a structured analytical framework integrating three perspectives—capability, strategic and managerial mechanisms, and supply chain/network structures. This integrated approach helps reveal key themes and provides a foundation for future research, particularly in developing theories relevant to Chinese firm contexts.

Early research primarily focused on “organizational survival,” emphasizing how firms maintain minimal operational functioning during crises such as natural disasters, financial disruptions, or technological breakdowns. Western scholars initially associated resilience with organizational reliability, fault tolerance, and redundancy, highlighting stability and robustness. With advances in complexity science, however, firms began to be viewed as dynamic systems, shifting the understanding of resilience from a static ability to resist shocks to a dynamic, multi-stage process encompassing resistance, absorption, recovery, and renewal. This shift paved the way for dynamic capability theory and system-architecture perspectives to enter resilience research.

Following the 2008 global financial crisis, the strategic significance of resilience grew markedly, with greater emphasis placed on organizational learning, resource reconfiguration, knowledge absorptive capacity, strategic flexibility, and digital-enabled capabilities. Today, resilience is increasingly regarded not merely as a survival capability but as a developmental capability—firms are expected not only to recover but also to leverage crisis as an opportunity for transformation.^[3] With the rise of the digital economy and disruptions to global supply chains, resilience research has expanded to incorporate complex network theory, digital transformation, and ecosystem governance, making its theoretical structure more diverse and its mechanisms more open and systemic.

2.1. Expansion of Conceptual Foundations

Early discussions framed resilience primarily as an attribute related to system stability, reliability, and fault tolerance. With the increasing prevalence of complex and nonlinear disruptions, scholars began recognizing resilience as a process that unfolds over time, involving anticipation, absorption, recovery, and post-crisis transformation. Modern conceptions increasingly incorporate:

- (1) Nonlinearity and path dependence in resilience processes.
- (2) Multi-level interactions among individuals, organizations, and ecosystems.
- (3) Digital technologies as foundational resources enabling sensing and coordination.
- (4) Institutional and societal structures shaping resilience pathways. These developments broaden resilience from a risk-focused construct into a strategic capability central to long-term competitiveness.

2.2. Capability Perspective on Enterprise Resilience: From Resource Redundancy to Dynamic Capabilities

From a capability perspective, enterprise resilience is commonly conceptualized as comprising four core dimensions: preparedness, response, recovery, and development. Resource flexibility, redundancy, operational adaptability, learning capability, and dynamic capabilities are consistently identified as key determinants.

International research emphasizes balancing resource flexibility and redundancy. While redundancy enhances shock resistance, excessive redundancy may reduce efficiency; thus, resilience requires dynamic resource reconfiguration. Dynamic capability theory provides a foundational framework, highlighting firms' abilities to sense, seize, and reconfigure resources to maintain adaptability in uncertainty. Accordingly, learning capabilities, absorptive capacity, and innovation capabilities have become central variables in resilience studies. A firm's information-processing quality, experiential learning, and technological competence influence its responsiveness and recovery speed.^[4]

With the advancement of digital technologies, digital resources, information transparency, and data-driven decision-making have emerged as modern determinants of resilience. Digital systems enable real-time sensing, predictive analytics, and automated coordination, shifting resilience from experience-driven to data-driven. Cutting-edge research increasingly focuses on how artificial intelligence, supply chain visibility systems, platform ecosystems, and digital knowledge-sharing enhance resilience.

Chinese research on enterprise resilience, although developing later than in Western contexts, has grown rapidly over the past decade and demonstrates a distinct logic. Beyond emphasizing internal capabilities, Chinese studies place greater weight on external institutional environments, government support, industrial policies, and industrial-chain ecosystems. These factors reflect China's economic structure, governance practices, and policy-driven industrial organization.^[5]

Furthermore, Chinese scholarship highlights the role of digital transformation, supply chain digital infrastructure, big-data platforms, and intelligent manufacturing in building resilience. China's system-wide digital infrastructure, industrial-chain integration capabilities, and platform economy have contributed to unique pathways of resilience development, offering localized insights that enrich global resilience theory.

2.3. Strategic and Managerial Perspective: Governance Systems, Leadership, and Strategic Flexibility

From a strategic and managerial perspective, corporate resilience is not only understood as an organization's ability to survive shocks but also as a "dynamic sustainability capability" embedded in the strategic system.^[6] Its formation mechanism involves the synergistic interaction of multiple dimensions, including governance structure, strategic flexibility, leadership style, organizational culture, power structure, and decision-making mechanisms. This perspective emphasizes that resilience is not a passive defensive attribute but a forward-looking and systematic strategic capability, whose core lies in enabling enterprises to maintain a balance between strategic consistency and adaptability in a highly uncertain environment.

International research generally focuses on the critical role of top-level governance in resilience building. The structural characteristics of the top management team (TMT), such as heterogeneity, cognitive complexity, and experience diversity, have been proven to significantly enhance senior management's depth of external risk identification and strategic interpretation capabilities. The team's diversified cognitive framework not only helps the organization detect potential crisis signals earlier but also promotes the generation of multi-path strategic solutions, thereby improving the enterprise's response speed, resource reallocation capacity, and strategic adjustment quality in crises. Meanwhile, strategic flexibility is regarded as a core component of resilience strategy, manifested in inherent capabilities such as multi-scenario planning, strategic slack design, resource redundancy allocation, agile decision-making mechanisms, and cross-departmental collaboration systems.^[7] By building a redundant yet efficient organizational structure, enterprises can quickly mobilize key resources when facing sudden shocks, achieve seamless switching of backup paths, and reduce risk exposure caused by strategic inertia.

At the level of organizational culture, foreign studies have long emphasized the profound shaping effect of culture on resilience.^[8] Learning-oriented, innovative, and inclusive cultures can enhance employees' psychological resilience, improve group collaboration efficiency, and encourage employees to address problems in creative ways. As an informal governance mechanism, organizational culture enables enterprises to more effectively maintain organizational cohesion and drive recovery growth during crises by influencing employees' risk attitudes, information sharing levels, and response strategy choices.^[9] Some studies further point out that there is an interaction effect between organizational culture and leadership style: open and shared leadership can often strengthen the role of a learning culture, while authoritative leadership is more conducive to rapid centralized decision-making in the early stages of a crisis. Research from a strategic and managerial perspective in China presents localized characteristics, with a particular emphasis on the interactive relationship between government governance logic and corporate strategic choices.

Chinese enterprises often need to make dynamic trade-offs between central policy orientations, local development strategies, and market competition, which makes their resilience strategies exhibit "policy sensitivity". In addition, factors such as the institutional background of family businesses, relationship networks, and organizational power structures have also become key focuses of Chinese research. For example, moderate centralization is considered to improve crisis response efficiency, while excessive centralization may reduce information transparency and organizational flexibility.^[10] Chinese scholars also emphasize the impact of leaders' emotions and organizational political behaviors on resilience,

arguing that top-level power concentration and leaders' authoritative style are conducive to crisis response in certain contexts but may limit organizational learning capabilities and resilience improvement space in the long-term development stage. In recent years, Chinese research has integrated digital strategy into the resilience management framework, holding that digital governance, data middle platform construction, and digital leadership can significantly enhance the organization's ability to make rapid judgments and dispatch resources in crises, upgrading resilience strategy from experience-based governance to algorithm-based governance.

2.4. Supply Chain and Network Perspective: From Firm-Level to System-Level Resilience

From the perspective of supply chains and networks, corporate resilience is re-examined within a multi-level, dynamically evolving external relationship network. This perspective emphasizes that enterprises are not isolated entities but are embedded in a complex network system spanning across organizations, regions, and industries.^[11] Their resilience depends not only on internal resources and capabilities but also is shaped by the structure of external supply chains and their systemic characteristics. In an environment marked by advanced globalization and frequent disruptions to global supply chains, the significance of the network perspective has become increasingly prominent, and it is regarded as a key theoretical paradigm for explaining differences in corporate resilience.

International research has developed a systematic analytical framework for supply chain resilience based on complex network theory, supply chain management theory, and ecosystem theory. Complex network theory posits that enterprises, as nodes embedded in the supply chain network, are profoundly influenced by the topological characteristics of the network, such as network centrality, the position of structural holes, connection redundancy, and the length of connection paths. The redundancy, diversity, and structural complexity of the supply chain network help improve the system's fault tolerance, preventing single-point failures from triggering global cascading reactions.^[12] It has also been proven that strong ties and weak ties in supplier relationships contribute differently to resilience: strong ties enhance trust, collaboration, and the efficiency of information sharing, while weak ties expand sources of innovation and environmental adaptability.

Among the structural characteristics of supply chains, supplier concentration is one of the core variables affecting corporate resilience. International research generally points out that supplier concentration has a "double-edged sword effect": a relatively high level of concentration can reduce procurement costs, improve coordination efficiency, and enhance transaction stability, but it also increases dependence on key suppliers, exposing enterprises to risks such as supply disruptions, price manipulation, and geopolitical risks, thereby elevating system vulnerability. In contrast, strategies such as supplier diversification, global geographical dispersion, redundancy of key nodes, and backup supply paths can significantly strengthen network resilience, enabling the system to maintain operational continuity even when a certain node fails.

With the widespread application of digital technologies, the construction path of supply chain resilience has undergone structural changes. Supply chain visibility, real-time monitoring systems, big data-based risk early warning, automated scheduling algorithms, and cross-organizational collaboration platforms are regarded as core mechanisms for promoting the improvement of supply chain resilience. By achieving information transparency, status visibility, proactive risk identification, and automated response, digital supply chains significantly shorten the time interval between crisis identification and decision-making, and improve the recovery speed of both individual enterprises and the entire network. Against the backdrop of increasingly frequent global supply chain shocks, frontier topics of international research include nearshoring of supply chain layout, flexible manufacturing capabilities, dual-source supply strategies, strategic buffer stock, and the construction of platform-based supply chain ecosystem. These topics reflect the evolutionary trend of supply chain resilience from a linear management model to an ecosystem governance model.

Chinese research emphasizes industrial-chain resilience and national-level supply security. Given China's pivotal role in global value chains and exposure to trade conflicts and geopolitical risks, studies highlight indigenous supply-chain substitution, industrial-chain collaboration, supply-chain finance, and government-led industrial protection mechanisms. Digital supply chains—supported by digital logistics platforms, blockchain traceability systems, and industrial internet platforms—constitute a distinctive feature of Chinese research.

Industrial clusters and platform enterprises also provide unique contexts for resilience, with network externalities and resource integration capabilities offering resilience support for SMEs during crises.

2.5. Characteristics and Future Directions of Enterprise Resilience Research

Across the three perspectives, enterprise resilience research is moving toward greater systemic, dynamic, and multi-level integration. The capability perspective focuses on internal resources and digital capabilities; the strategic management perspective emphasizes governance and leadership; and the supply chain/network perspective examines external interdependencies and system-level collaboration.

However, several limitations remain:

- (1) Lack of dynamic process modeling: resilience's nonlinearity, stage evolution, and cross-level mechanisms remain underexplored.
- (2) Incomplete digital resilience theory: the role of AI, large models, platform ecosystems, and algorithmic governance lacks systematic modeling.
- (3) Weak integration between supply chain resilience and firm-level resilience: especially under global supply chain restructuring.
- (4) Insufficient theorization of Chinese-context resilience: despite unique institutional and industrial characteristics.
- (5) Inconsistent measurement: with ongoing debates on whether resilience is a multidimensional construct, process variable, or outcome variable.

Future research should therefore:

- (1) Develop dynamic, evolutionary frameworks emphasizing path dependence and feedback loops.
- (2) Investigate resilience mechanisms under digitalization, intelligence, and platformization.
- (3) Theorize resilience within Chinese institutional and digital-economic contexts.
- (4) Advance system-level research across supply chain–industry chain–ecosystem structures.
- (5) Establish unified measurement frameworks, integrating machine learning and dynamic indicators.

3. Conclusion

In the context of global economic uncertainty, frequent supply chain disruptions, and accelerating digital transformation, enterprise resilience has emerged as a central topic in organizational and operations management research. This paper systematically reviews the major research streams on enterprise resilience from resource-based, capability-based, and governance-and-relationship perspectives, arguing that resilience does not originate from any single dimension but is instead the outcome of the combined effects of resource endowments, capability systems, and network relationships.

At the resource level, resource redundancy, resource diversity, and resource accessibility constitute the material foundation of resilience. At the capability level, the “sensing – responding – adapting” mechanisms of dynamic capabilities explain how firms convert resources into resilient performance. At the relational level, supply chain collaboration, relational governance, information sharing, and network structure collectively shape firms’ systemic resilience. Particularly in the digital era, the meaning and boundaries of resilience have been redefined and expanded: digital technologies not only enhance information transparency and response speed but also reduce the cost of redundancy, enabling firms to build resilience more efficiently.

This paper further highlights that enterprise resilience research is moving toward cross-level, intelligent, and data-driven directions. In the future, resilience will no longer be viewed merely as an organizational attribute but as a property embedded within multi-level systems encompassing firms, supply chains, industrial chains, and regional economies. The enhancement of resilience will increasingly rely on digital technologies, intelligent algorithms, and network structure optimization. With the deepening of the digital economy, the institutional environment, supply chain characteristics, and digital advantages of Chinese firms will provide unique contexts and fertile opportunities for resilience research.

Therefore, future research should deepen understanding of dynamic mechanisms, digital technologies, system-level collaboration, and context-specific theoretical development, thereby promoting both theoretical innovation and practical advancement in resilience research within the field of management.

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