Entrepreneurial Resource Preservation Heuristics and Resource Evolution Mechanisms Under Loss Conditions

Authors: Li Yanni, Wang Shudan, Liu Yi, Li Yanni

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Abstract

In recent years, how to shape resource evolution paths to achieve steady development of new ventures has become a focal issue of common concern to both practice and theory. Existing research mostly emphasizes the roles of organization and environment while lacking consideration of entrepreneur cognition, which holds significant value for resource evolution; it also focuses primarily on resource-constrained contexts while neglecting the enormous pressure of resource loss borne by enterprises. Based on existing research on resource evolution and entrepreneur cognition, this study conducts an in-depth exploration of issues such as the core elements, evolution paths, and effect evaluation of resource evolution in new ventures under loss contexts. Specifically, it summarizes the connotation and dimensions of resource evolution behaviors under loss contexts; identifies the main paths of resource evolution under loss contexts driven by entrepreneurs' resource preservation heuristics; uncovers the resource evolution processes under different types of opportunity development, and clarifies the role, status, and function of opportunity development in the resource evolution process; and examines an integrated environmental and cognitive model of resource evolution effects. The research findings hold important practical significance for addressing loss predicaments and improving firms' resource evolution capabilities.

Full Text

Preamble

Entrepreneur's Resource-Induced Coping Heuristic and Resource Evolution Mechanism in Loss Contexts

Li Yanni[1], Wang Shudan[1], Liu Yi[2]
(1. School of Economics and Management, Hebei University of Technology,

Tianjin 300401;
2. School of Economics and Management, Tianjin Agriculture University, Tianjin 300392)

Abstract

In recent years, how to shape resource evolution pathways to achieve steady development of new ventures has become a focal concern for both practitioners and scholars. Existing research predominantly emphasizes the roles of organizational and environmental factors while neglecting entrepreneurial cognition, which holds significant value for resource evolution. Moreover, while many studies concentrate on resource-constrained situations, they overlook the substantial pressure enterprises face from significant resource losses. Grounded in prior research on resource evolution and entrepreneurial cognition, this study undertakes an in-depth exploration of the core elements, evolutionary pathways, and performance evaluation of resource evolution for nascent ventures operating in loss contexts. Specifically, we aim to induce the connotations and dimensions of resource evolution behavior in loss situations, identify the primary pathways through which entrepreneurs' resource-induced coping heuristics drive resource evolution under loss conditions, excavate the resource evolution processes under different types of opportunity development, clarify the role, status, and function of opportunity development in the resource evolution process, and examine integrated environmental and cognitive models for evaluating resource evolution effects. The findings hold important practical significance for addressing loss dilemmas and enhancing enterprises' resource evolution capabilities.

Keywords: resource loss, resource bricolage, resource optimization, resource-induced coping heuristic, post-loss performance

1. Problem Statement

Entrepreneurial activities are characterized by rapid changes, with a proverbial success rate of "three in ten survive, seven in nine perish." The inherent uncertainty in entrepreneurship inevitably triggers accidents or contingencies, leading to uncertain outcomes from prior resource investments and ultimately causing losses. The COVID-19 pandemic, for instance, delivered a massive shock to new ventures, forcing many to confront significant losses. According to a survey by the China Association of Small and Medium Enterprises on February 15, 2020, as of February 14, 38.9% of enterprises reported temporary suspension of operations, 29.43% anticipated losses due to the pandemic, and 18.13% reported barely maintaining operations. National Bureau of Statistics data released on March 16, 2020, also indicated that from January to February, China's industrial added value above designated size, investment, and consumption decreased by 13.5%, 24.5%, and 20.5% year-on-year, respectively, with unemployment reaching 6.2%. Nevertheless, in practice, companies like Lin Qingxuan achieved turnaround growth during the pandemic by innovatively recomposing resources

through “cost reduction and efficiency enhancement”; Freshippo (Hema) broke through by integrating restaurants, hotels, and cinemas to create a new path for flexible labor allocation, ultimately emerging victorious with its “shared employees” model; and Atour Hotel diversified its profit points through innovative elements such as “positioning, crowdfunding, IP hotels, and scenario-based e-commerce” to weather the crisis. These initiatives all demonstrate that resource structure reconfiguration becomes more essential during enterprise losses and is reshaping resource utilization patterns with unstoppable momentum to create myths of triumph against adversity.

Research on resource structure reconfiguration in loss contexts is particularly crucial. However, the divergent growth outcomes among different new ventures facing losses compel us to ask: “Why can some new ventures creatively reconfigure their resource structures and unlock value when confronted with losses, while others cannot?” In academic research, “reconfiguring resource structure” is defined as “resource evolution,” which involves reshaping resource utilization patterns and structures while developing new business opportunities to overcome resource constraints (Chesbrough & Rosenbloom, 2002; Brea-Solís et al., 2015). This construct aligns perfectly with the core of resource-based actions for new ventures coping with losses. Through a review of entrepreneurship literature, we find that resource structure reconfiguration encompasses two approaches: one is “resource bricolage” based on social constructivism, which involves creatively combining resources at hand and taking immediate action to solve new problems and discover new opportunities, thereby achieving resource structure reconfiguration (Baker & Nelson, 2005); the other is “resource optimization” based on the resource-based view, where firms create innovative products and services by acquiring standardized resources from external sources to reconfigure their resource structures (Desa & Basu, 2013). Evidently, resource evolution characterized by bricolage and optimization is key to dissecting the issue of resource structure reconfiguration.

Although scholars have recognized the importance of resource evolution, research in the entrepreneurship domain on loss contexts remains relatively insufficient (Smolka et al., 2016). On one hand, regarding the antecedents of resource evolution, existing studies have examined certain influencing factors but have predominantly focused on explicit characteristics such as human capital (Preeta et al., 2009; Zhao & Zhang, 2016; Shi & Weber, 2021; Pontus & Emma, 2023) and social capital (Baker et al., 2003; Song & Chen, 2019), while neglecting the interaction between entrepreneurial cognition and behavior. The cognitive mechanisms underlying resource behaviors require deeper investigation (Barney & Clark, 2005). Resource evolution is inseparable from cognition regarding the potential uses and value of resources, making it fundamentally a cognitive process. Therefore, this study adopts a cognitive perspective to examine evolution behaviors. The resource-induced coping heuristic, as a cognitive approach for responding to various resource losses (including potential losses), serves as the psychological driver for acquiring, protecting, and developing resources (Lanivich, 2015; Lanivich et al., 2021). It determines the content and

quality of the resource pool, influences resource combination methods, and is crucial for resource evolution research. It not only assists entrepreneurs in constructing resource advantages, implementing resource evolution, and achieving firm growth but also clarifies the underlying mechanisms and hidden patterns for transforming resource losses into positive entrepreneurial behaviors.

On the other hand, regarding the effects of resource evolution, theoretical research suggests that firms' resource evolution behaviors significantly promote entrepreneurial performance, yet empirical tests have yielded heterogeneous conclusions (Gundry et al., 2011; Salunke et al., 2013). This discrepancy stems from existing studies' reliance on simple bivariate relationships without effectively identifying the contingent factors in the mechanism.

In light of these gaps, this study focuses on two core questions: (1) Why can some firms undertake resource evolution when facing losses? (2) Why do some firms achieve significant effects from post-loss resource evolution? To address these questions, this study examines resource evolution based on bricolage and optimization, employs entrepreneurs' loss-coping cognition as an explanatory perspective for differential resource behaviors, and establishes logical relationships between loss contexts, entrepreneurial cognition, and evolution behaviors to comprehensively analyze the influencing factors and effect mechanisms of resource evolution, thereby enhancing insights into loss-coping strategies for new ventures.

2. Literature Review and Commentary

2.1 The Connotation of Resource Evolution

Although existing research emphasizes the resource losses faced by new ventures, we know little about how these firms can overcome losses and maintain steady growth. This study clarifies the essential connotation of resource evolution through two resource reconfiguration approaches commonly employed by entrepreneurs: bricolage and optimization.

Levi-Strauss (1967) first proposed bricolage, viewing it as creating new forms and meanings from objects and tools within known environments. Since then, literature on resource bricolage has flourished, with academic understanding continuously expanding as scholars have defined the concept from different perspectives. Derrida (1976), from a philosophical perspective, proposed that bricolage is a strategic behavior that integrates resource uses through deconstructionist thinking. Weick (1993), from an organizational sociology perspective, defined bricolage as a solution for organizations to take immediate action when facing unexpected events. Loarne (2005), from a behavioral psychology perspective, proposed that bricolage is a dynamic process comprising four stages: resource integration, task identification, solution proposal, and effect evaluation. Baker and Nelson (2005), from an entrepreneurship management perspective, defined "resource bricolage" as "combining resources at hand and taking immediate action to solve new problems and discover new opportunities," encompassing

three dimensions: making do, integrating resources for new purposes, and utilizing available resources. Additionally, Di Domenico et al. (2010) supplemented Baker and Nelson's work by adding two dimensions: refusing to conform to constraints and improvisation. The former refers to entrepreneurs striving to break through various limitations to achieve value reconfiguration of existing resources, while the latter is described as both creative and intuitive because it influences how firms reconfigure resources to adapt to market opportunities in response to crises, disasters, or unexpected events. Given that Baker and Nelson's definition is the most classic, this study adopts their conceptualization: combining resources at hand and taking immediate action to solve new problems and discover new opportunities.

Resource optimization was proposed by Desa and colleagues as a process where firms create innovative products and services by acquiring standardized resources from external sources to achieve resource structure reconfiguration. These standard resources have proven functions for specific applications (Garud & Karnoe, 2003). In other words, standardized, high-quality resources provide firms with means to improve operational and organizational efficiency and achieve intended purposes (Kirzner, 1997; Shane & Venkataraman, 2000). Firms engaging in optimization behaviors clearly understand the quality of resources needed to achieve their goals and create innovative products and services by purchasing standardized off-the-shelf materials, hiring paid employees, and acquiring professional skills.

2.2.1 Research on the Influence Mechanism of Resource Bricolage

Since the introduction of "bricolage," research has evolved from the individual micro-level of entrepreneurs to the firm level and then to the macro-environmental level. Scholars have examined the impact of entrepreneurs' explicit characteristics (such as human capital and social capital) on resource bricolage from an entrepreneurial process perspective, yielding a series of research findings. To compensate for the insufficient explanatory power of the process perspective regarding the reasons for differential bricolage behaviors, relevant studies have interpreted the underlying causes and mechanisms from deeper cognitive and thinking levels. With deepening research, the role of meso- and macro-level factors has also received attention. At the entrepreneur level, factors include prior experience (Shi & Weber, 2021; Fuglsang, 2010), capabilities (Shir et al., 2019; Preeta et al., 2009), knowledge stock (Sun et al., 2022; Zhao & Zhang, 2016), social networks (Baker et al., 2003; Song & Chen, 2019), and cognitive flexibility (Zuo & Zhou, 2017). Organizational-level antecedents primarily focus on capabilities (Preeta et al., 2009; Hu et al., 2020) and strategic orientation (Wang et al., 2018). At the environmental level, Desa and Basu (2013) constructed a theoretical framework for firm resource mobilization by examining the influence of external environmental munificence and internal organizational reputation on social ventures' adoption of bricolage and optimization.

2.2.2 Influence Mechanism of Resource Optimization

Research on resource optimization remains relatively scarce, still 停留在概念和简单的理论验证阶段. Specifically, Desa and Basu (2013) characterized resource optimization behavior across three dimensions—materials, labor, and skills—and summarized the positive relationships between environmental munificence, organizational excellence, and resource optimization. Lu and Guo (2018) examined the mediating role of resource optimization between opportunity innovativeness and new venture performance, finding that highly innovative opportunities stimulate firms' ability to plan and match quality resources, thereby promoting efficient production and operations. Wang et al. (2023) constructed a recommendation and resource optimization model for cultural and creative industry entrepreneurship projects based on neural network algorithms, suggesting that project recommendations facilitate resource optimization and ultimately achieve economic restructuring and industrial upgrading.

2.3 Research on the Effect Mechanism of Resource Evolution

As a conceptual system encompassing both bricolage and optimization, research on the effect mechanism of resource evolution has primarily focused on bricolage, yielding divergent conclusions regarding its impact on entrepreneurial outcomes. On one hand, some scholars have confirmed that bricolage, by deviating from established "means-ends" resource reconfiguration (Shane & Venkataraman, 2000) and leveraging idle and inexpensive resources at hand (Baker & Nelson, 2005), can generate innovative outcomes through customer participation and feedback (Garud & Karnoe, 2003; Salunke et al., 2013) and promote new venture development. On the other hand, some scholars have highlighted the potential negative impacts of bricolage on performance, as it may create imperfect, substandard, and barely adequate products and services (Gundry et al., 2011) while fostering dependence on existing resources, making it difficult to achieve breakthroughs in products and services.

2.4 Resource-Induced Coping Heuristic and Resource Evolution

The resource-induced coping heuristic represents entrepreneurs' cognitive strategies for responding to various resource losses (including potential losses) in uncertain environments. It is an important means for entrepreneurs to cope with losses and directly influences entrepreneurial strategy and outcomes. Lanivich (2015) noted that the resource-induced coping heuristic helps maintain competitive advantages by building resource pools. When entrepreneurial ventures face threats from resource losses, entrepreneurs need to store and protect resources to defend against unpredictable losses, focus on other projects to acquire resources to increase their likelihood of success, or even restructure and innovate to develop stored resources, further enhancing their opportunities to gain competitive advantages. In summary, entrepreneurs adopting resource-induced coping heuristics to address resource losses can reduce perceived uncertainty levels, achieve competitive advantages, and ultimately impact firm

performance. Adomako (2021) argued that resources accumulated under the drive of entrepreneurs' resource-induced coping heuristics are crucial for innovation, proactiveness, and risk-taking behaviors, serving as the fundamental driver of firm strategic orientation.

However, research exploring resource behaviors from this perspective remains rare compared to studies on how resource-induced coping heuristics affect strategic orientation and performance outcomes. In reality, both strategic orientation and performance outcomes are inseparable from behavioral processes. Losses further exacerbate resource constraints, requiring firms to adopt resource structure reconfiguration approaches such as "bricolage" and "optimization." Yet resource evolution behaviors do not occur automatically; they require support from corresponding resource pools. Most existing research is built upon existing resource pools, paying little attention to the micro-dynamic process of resource construction. However, this process directly affects the quantity and type of resources collected, retained, and managed, determines the content of the resource pool, influences resource combination and utilization methods, and is key to restructuring resource structures. As a cognitive strategy for constructing resources, the resource-induced coping heuristic tends to acquire, protect, and develop resources, and its impact on resource activities functions through the enrichment and value enhancement of resource pools. Therefore, analyzing the deep-level question of "how resource-induced coping heuristics influence resource evolution" can help further deepen research findings.

2.5 Literature Review and Future Directions

Based on the domestic and international research landscape, this study, after clarifying the construct and dimensions of resource evolution, focuses on answering two questions: "How to undertake resource evolution in loss contexts?" and "How does resource evolution function in loss contexts?" Research on "how to undertake resource evolution in loss contexts" is more reflected in bricolage, where individual, organizational, and environmental factors all influence firms' resource evolution behaviors. Whether individual or organizational resource endowments or resource channels in munificent environments, all depend on the resource construction process, which, as a prerequisite for resource evolution, has been largely neglected. Research on "how resource evolution functions in loss contexts" reveals that the same resource evolution behaviors may produce differential effects due to differences in the underlying thinking logic of resource behaviors. Therefore, it is necessary to deeply reveal the relationship mechanism between the two and the important situational variables that exist between them. In response to the aforementioned research gaps and practical problems, this study integrates the internal connections among entrepreneurial cognition, resource evolution, and post-loss performance, attempting to provide valuable references for research in this field from two aspects.

On one hand, revealing the cognitive mechanism of resource evolution in new ventures. Micro-level resource evolution research has predominantly focused on

explicit characteristics such as human capital and social capital, yet this process neglects the interaction between entrepreneurial psychology and behavior. Some scholars have proposed that entrepreneurial behavior is influenced by cognition and emotion; what we see is merely behavioral 表象, while the invisible behavioral causes (such as cognition and thinking) are often more interesting (Bird et al., 2012). Whether entrepreneurs' evolution behaviors in response to resource losses are related to their deep-level cognition and thinking patterns and what relationship exists between them is a seemingly simple yet highly valuable question. Lanivich (2015) introduced the concept of resource-induced coping heuristic into entrepreneurship research, providing a new perspective for comprehensively understanding and effectively responding to resource losses. The resource-induced coping heuristic is entrepreneurs' psychological tendency to acquire, protect, and develop resources, directly influencing resource behaviors in entrepreneurial activities. Moreover, entrepreneur characteristics and opportunity nature largely determine firms' resource behaviors, primarily because the development processes for different types of opportunities vary, and even when facing the same opportunity, differences in entrepreneurs' characteristics lead them to adopt different evolution behaviors. Therefore, the complex interplay among entrepreneurial cognitive characteristics, opportunity development, and resource evolution has become an important direction for future research.

On the other hand, dissecting the boundary conditions of resource evolution effect research. The same resource evolution pathways may produce differential effects due to differences in the thinking logic behind resource behaviors; however, even with the same decision-making logic, different outcomes may still occur, with another key factor being the decision-making environment. Some recent studies have begun to touch upon the boundary role of environment in resource evolution effects, but such research remains in its infancy, lacking in-depth deconstruction of environmental dimensions. Furthermore, firm behavior is determined by the team's interpretation of the environment, which depends on the team's cognitive resources (Hambrick & Mason, 1984). Thus, as boundedly rational individuals, entrepreneurial team members selectively process information through cognitive filtering and interpretation, thereby influencing organizational strategic behaviors and development, particularly affecting resource decisions, resource availability, resource combination activities, and action patterns (Priem, 1990; Mosakowski, 1998; Packalen, 2007; Sirmon et al., 2007). However, the contingent role of team cognition has not yet attracted scholars' attention. Given these theoretical gaps that need to be filled through field research, this study will advance research on the effect mechanisms of resource evolution in loss contexts by focusing on environmental dynamism and munificence as well as entrepreneurial team transactive memory systems.

3.1 Research Summary

Entrepreneurship is a behavioral process in which entrepreneurs identify, acquire, and construct valuable resource combinations to seek competitive advan-

tages (Alvarez & Barney, 2007; Moroz & Hindle, 2012). Resources form the foundation for firms' competitive advantages (Barney, 1991; Arthur & Duarte, 2021). Existing entrepreneurship resource research has primarily focused on resource constraints, emphasizing resource acquisition and development (Cai et al., 2011). However, uncertainty in the entrepreneurial process always induces accidents or contingencies, leading to uncertain outcomes from prior resource investments and causing resource losses in opportunity identification, venture investment, market entry, and other processes (Lanivich, 2015). Indeed, extant research indicates that resource loss or potential resource loss is one of the main causes of entrepreneurial failure (Holland & Shepherd, 2013). Therefore, analyzing how entrepreneurs undertake resource actions to cope with inevitable resource losses in highly uncertain entrepreneurial environments has become an unavoidable and important issue.

Focusing on this problem, this study systematically reveals the patterns of resource evolution for new ventures in loss contexts, guided by the "cognition-behavior-outcome" logic line to construct a theoretical model. The research content primarily revolves around two questions: "How to undertake resource evolution in loss contexts?" and "How does resource evolution function in loss contexts?" Specifically, Study 1 (3.2) identifies the main pathways through which entrepreneurs' resource-induced coping heuristics drive resource evolution in loss contexts, excavates the resource evolution processes under different types of opportunity development, and clarifies the role, status, and function of opportunity development in the resource evolution process. Study 2 (3.3) examines the boundary conditions affecting resource evolution effects, analyzing how to optimize resource evolution effects from internal and external environmental perspectives. The specific framework is shown in Figure 1 [Figure 1: see original paper].

Study 1: How to Undertake Resource Evolution in Loss Contexts
Examines the influence mechanism of entrepreneurs' resource-induced coping heuristic (RICH) on resource evolution, revealing the cognitive mechanism and boundary conditions of entrepreneurs' resource evolution behaviors in loss contexts.

Study 2: How Resource Evolution Functions in Loss Contexts
Examines the effect mechanism and boundary conditions of entrepreneurs' resource evolution behaviors in loss contexts, focusing on how resource evolution impacts post-loss performance through transactive memory systems.

Figure 1. Theoretical Model of Entrepreneurial Cognition's Influence on Resource Behavior and Its Effects

3.2.1 Research on the Influence Path of Entrepreneur Resource-Induced Coping Heuristic on Resource Evolution

Why can some new ventures reconfigure their resource structures to survive loss dilemmas while others cannot? Theoretically, research on firms' resource

bases and related resource behaviors has evolved from focusing on the essential attributes of resources to analyzing how firms create competitive advantages through constructing, integrating, and utilizing resource bases and combinations (Huang et al., 2020). Reviewing current literature reveals that scholars have proposed different explanatory logics from differentiated theoretical perspectives such as strategic theory (Aticus et al., 2021; Clougherty et al., 2020), human capital theory (Panagiotis et al., 2021), and social network theory (Klyver & Arenius, 2022) to provide comprehensive and rigorous explanations for this research question. However, this process neglects the interaction between entrepreneurial psychology and behavior. Some scholars have proposed that entrepreneurial behavior is influenced by cognition and emotion (Holger, 2021). Whether entrepreneurs' resource evolution behaviors in response to resource losses are related to their deep-level cognition and thinking patterns and what relationship exists between them is a seemingly simple yet highly valuable question.

Originating from psychology to describe how individuals cope with stress, Conservation of Resources (COR) theory has been widely studied in management. Some scholars have integrated COR theory with cognitive thinking to propose the resource-induced coping heuristic as entrepreneurs' cognitive strategy for responding to various resource losses (including potential losses) in uncertain environments (Lanivich, 2015). Resource loss not only triggers negative emotions such as panic, anxiety, and depression but may ultimately lead to entrepreneurial failure. To overcome stress after losses, entrepreneurs need to implement a series of resource conservation behaviors—including acquisition, protection, and development—to help alleviate negative impacts and achieve steady growth. Introducing the resource-induced coping heuristic into resource loss research not only assists entrepreneurs in constructing resource advantages from negative loss events, implementing resource allocation behaviors, and achieving firm growth but also further clarifies the internal mechanisms and hidden patterns for transforming loss events into positive entrepreneurial behaviors. Therefore, the resource-induced coping heuristic provides a new perspective for comprehensively understanding and effectively responding to resource losses. Accordingly, we propose:

Proposition 1a: Entrepreneurs' resource-induced coping heuristic positively influences resource bricolage.
Proposition 1b: Entrepreneurs' resource-induced coping heuristic positively influences resource optimization.

3.2.2 Resource-Induced Coping Heuristic, Opportunity Development, and New Venture Resource Evolution

Entrepreneurship is a process in which entrepreneurs, entrepreneurial opportunities, and entrepreneurial resources synergistically match and dynamically adjust to achieve new venture creation (Gartner, 1985; Timmons, 1999; Davidsson, 2005). This process takes opportunity identification and development as its

starting point, uses the fit between entrepreneurs and opportunities as a reference, and promotes new venture development through resource behavior combinations. However, because new ventures lack the capabilities, time, or resources to invest in extensive search, experimentation, and implementation (Fultz & Hmieleski, 2021), entrepreneurs developing different types of opportunities will not only focus on existing resources to seek possibilities for supporting firm development but also weigh the possibility of acquiring entrepreneurial resources externally. Entrepreneurs may both strive to seek entrepreneurial support from existing resources and work to acquire necessary new resources. Thus, resource-constrained new ventures adopt corresponding resource behaviors when facing opportunities (Fultz & Hmieleski, 2021), meaning that opportunity development inevitably influences the relationship between entrepreneurs' resource-induced coping heuristic levels and new venture resource evolution.

Specifically, developing innovative opportunities means entrepreneurial activities face high uncertainty, making resource acquisition relatively difficult. It also means investors and suppliers struggle to grasp and judge the value of entrepreneurial opportunities. Because relative to existing "means-ends" relationships, developing such opportunities represents a challenge—they often configure and utilize resources in new or even unprecedented ways. This unfamiliar, breakthrough resource configuration approach easily triggers resistance from investors and suppliers, and legitimacy deficits result in weak external support (Aldrich & Fiol, 1994; Francis et al., 2022). At this time, if entrepreneurs possess high levels of resource-induced coping heuristic, they can often act quickly to acquire, protect, and develop resources, resolve uncertainty factors in opportunities, achieve creative utilization of resources at hand, and tend to adopt "bricolage" behaviors in resource evolution. Conversely, developing equilibrium opportunities means partial optimization of "means-ends" relationships with overlapping existing business scopes. Firms have already accumulated some resource channels, and existing business resource configuration methods have been accepted by stakeholders with sufficient legitimacy, making resource acquisition relatively easy. In this case, even if entrepreneurs possess high levels of resource-induced coping heuristic, they tend to acquire new resources and adopt "optimization" behaviors in resource evolution when developing such opportunities.

Proposition 2a: Compared to equilibrium opportunity development, innovative opportunity development strengthens the relationship between resource-induced coping heuristic and resource bricolage.
Proposition 2b: Compared to equilibrium opportunity development, innovative opportunity development weakens the relationship between resource-induced coping heuristic and resource optimization.

3.3 Study Content Two: How Resource Evolution Functions in Loss Contexts

The effects of resource evolution behaviors are contingent upon moderating factors. Although existing research has considered the moderating role of the external environment on resource behavior effects (Senyard, 2015), it has overlooked the differential impacts of different environmental characteristics on one hand and neglected the influence of entrepreneurial team characteristics as key internal firm elements on the other. Entrepreneurial teams share information judgments about resources and opportunities, shaping their thinking for processing information and directly influencing firms' resource behavior choices. Therefore, the transactive memory system, as a shared system among team members (Ren et al., 2006; Kollmann et al., 2020), importantly influences the relationship between resource evolution and firm performance. This section's analysis based on environment and team cognition helps reveal the factors that leverage differential resource evolution effects.

3.3.1 Environmental Integration Model of Resource Evolution Effects

According to strategic choice theory, firms' survival and development depend on the environment, and firm strategy formulation and behavioral decisions are inseparable from the environment. Therefore, whether resource evolution behaviors for coping with losses can produce good effects depends on the match between behaviors and the environment.

The fundamental dimensions for characterizing entrepreneurial environments include environmental dynamism and munificence. Environmental dynamism reflects the unpredictability and instantaneous change in firms' environments. High dynamism increases the risk of market knowledge obsolescence and makes it difficult to identify relevant market signals (Bao et al., 2020), resulting in low external information availability for new ventures and greater difficulty in identifying, searching for, and acquiring key resources. At such times, turning waste, cheap, and neglected resources into treasures helps grasp new opportunities and solve new problems, making "bricolage" behaviors more conducive to improving post-loss performance. In munificent environments, new ventures have higher external information availability and lower difficulty in identifying, searching for, and acquiring key resources. At such times, integrating newly acquired standardized resources helps build competitive advantages, making "optimization" behaviors more conducive to improving post-loss performance levels. This research content will employ a combination of questionnaire surveys and secondary data coding to verify that even if new ventures adopt resource evolution behaviors, they may not necessarily reverse loss-induced situations—the outcome also depends on whether the external environment can provide resource endowments.

Proposition 3a: Compared to environmental munificence, environmental dynamism strengthens the relationship between resource bricolage and post-loss

performance.
Proposition 3b: Compared to environmental munificence, environmental dynamism weakens the relationship between resource optimization and post-loss performance.

3.3.2 Cognitive Integration Model of Resource Evolution Effects

According to existing theory, firm behavior is determined by the team's interpretation of the environment, which depends on the team's cognitive resources (Hambrick & Mason, 1984). Thus, as boundedly rational individuals, entrepreneurial team members selectively process information through cognitive filtering and interpretation, thereby influencing organizational strategic behaviors and development, particularly affecting resource decisions, resource availability, resource combination activities, and action patterns (Priem, 1990; Mosakowski, 1998; Packalen, 2007; Sirmon et al., 2007). More importantly, recent scholars have proposed that different levels of shared cognition within teams may moderate the relationship between bricolage and firm performance (Senyard, 2015). As an interdependent shared system formed among team members, the transactive memory system influences the relationship between resource evolution and post-loss performance by encoding, storing, and retrieving information and knowledge in different domains (Hollingshead, 1998; Ren et al., 2006). Specifically, resource evolution is a process of interpreting and sense-making regarding information in resource contexts. Teams perceive connections between seemingly unrelated resources, and these perceptions depend on information processing. Furthermore, team information processing methods depend on the team's transactive memory system, with different systems producing diverse information interpretations. This means that the match between resource evolution and team information processing depends on whether the transactive memory system can provide novel interpretations of resource information for resource structures. Therefore, this study posits that different levels of entrepreneurial teams' transactive memory systems constitute an important reason for the differential post-loss performance results of resource evolution behaviors.

The transactive memory system comprises three dimensions: specialization, credibility, and coordination. Entrepreneurial teams with strong specialization possess rich heterogeneous knowledge, are adept at examining resource uses from different perspectives, breaking original thinking patterns to establish unconventional creative points, and generating new ideas for problem-solving by summarizing and abstracting different solutions from prior experience. Therefore, in the resource evolution process, they help propose new paradigms for resource combinations and promote post-loss performance improvement. Teams with strong credibility mutually recognize each other's capabilities, can prevent conflicts, and promote collaborative discussions and forward-looking decisions. Moreover, team members motivated by cognitive trust are more willing to link their behaviors with others and actively contribute knowledge (Lin et al., 2012; Zhong et al., 2012; Trong, 2022). Therefore, in the resource evolution pro-

cess, highly credible teams typically draw on other members' knowledge and experience, are skilled at overcoming cognitive framework limitations, and facilitate resource recombination and utilization under unique value conditions. Strong coordination implies shared understanding, increasing opportunities for sharing and acquiring knowledge (Li & Huang, 2013; Lin et al., 2012; Noroozi et al., 2013). Through coordination, knowledge integration can be more effectively achieved, generating creative ideas for restructuring resources. Therefore, in the resource evolution process, entrepreneurial teams with strong coordination can collectively analyze the uses of existing resources, jointly plan their utilization methods, generate new ideas, and enhance the promoting effect of resource evolution on post-loss firm growth. This research content will employ a combination of questionnaire surveys and secondary data coding to verify that even if new ventures adopt resource evolution behaviors, they may not necessarily reverse loss-induced situations—the outcome also depends on whether the entrepreneurial team's transactive memory system can provide support for reconstructing resource structures through resource evolution behaviors.

Proposition 4a: The transactive memory system positively moderates the relationship between resource bricolage and post-loss performance.
Proposition 4b: The transactive memory system positively moderates the relationship between resource optimization and post-loss performance.

4. Theoretical Construction

Based on relevant research on entrepreneurial cognition and resource behavior, this study attempts to answer: How to undertake resource evolution in loss contexts? How does resource evolution function in loss contexts? Addressing these questions, this study conducts a series of theoretical constructions.

First, introducing loss contexts provides new understanding and insights for new venture resource evolution. Existing research on resource evolution has predominantly focused on mature firms with loss-resistance capabilities, while resource loss exacerbates new ventures' resource constraints and constitutes a primary cause of failure. Although some studies have begun to focus on loss contexts, whether differences exist in firms' resource evolution behaviors under loss conditions warrants further exploration and deconstruction. Resource evolution is essentially a problem of resource structure reconfiguration. The definition of resource evolution in strategic management research highly aligns with the core of loss coping—it involves updating and restructuring existing or externally acquired resource structures, representing specific transformation strategies firms adopt when facing various external threats (Clougherty et al., 2020), as well as innovative evolution through discovering differential resource combinations. This study deconstructs resource evolution in loss contexts through two approaches: "resource bricolage" grounded in social constructivism (Baker & Nelson, 2005) and "resource optimization" grounded in the resource-based view (Desa & Basu, 2013). This approach helps shift the focus of entrepreneurship research toward loss contexts and excavates the dormant construct of resource

evolution, addressing the research 困境 of high fragmentation due to lack of operational measurement and providing a new path for systematically summarizing the connotation of resource evolution.

Second, focusing on cognitive thinking, this study analyzes the entire process of achieving resource evolution behaviors from a cognitive perspective, revealing the deep-level reasons for changes in resource evolution. To date, the academic community knows little about resource evolution. Resource evolution can cope with losses because the behavioral pathways it encompasses deliver value in specific environments. Regarding the key kernels of resource evolution identified by Desa and Basu—"bricolage" and "optimization"—although some scholars have tested the promoting effect of bricolage on new venture performance (Senyard, 2015), existing research lacks discussion on core propositions such as the preconditions and triggering mechanisms, main pathways, and effect mechanisms of resource evolution. For instance, what is the effect mechanism of the complete resource evolution pathway? What factors hinder or facilitate new ventures' resource evolution? This study intends to use the 协同匹配 of entrepreneurs, entrepreneurial opportunities, and entrepreneurial resources (Gartner, 1985; Timmons, 1999; Davidsson, 2005) as the foundational research framework and introduce loss-coping thinking—the resource-induced coping heuristic. Entrepreneurs with this cognitive thinking react quickly when they notice resources emerging in information-asymmetric markets, stimulating them to recombine resource elements during the processes of acquiring, preserving, and developing resources, thereby achieving resource evolution. Additionally, considering that developing different types of opportunities (such as innovative vs. equilibrium opportunities) inevitably influences the relationship between entrepreneurs' resource-induced coping heuristic and resource evolution, this study further 梳理 the influence pathways among resource-induced coping heuristic, opportunity development, and resource evolution to construct a comprehensive theoretical model of the resource evolution process. This not only further explores the role of resource-induced coping heuristic in the entrepreneurial process proposed by Lanivich (2011)—as an explanatory mechanism for resource evolution pathways, deepening cognitive perspective entrepreneurship research—but also expands the influence boundaries and applicability of the resource evolution process.

Third, based on multidimensional boundaries, this study summarizes the performance differences of resource evolution behaviors from two perspectives: environmental characteristics and entrepreneurial team cognition. Regarding environmental characteristics, under the same decision-making logic, the key factor for differential effects of the same resource evolution behaviors on post-loss performance lies in different decision-making environments. Resource evolution behaviors permeate the entire entrepreneurial activity, and environmental dynamism and munificence are environmental characteristics that entrepreneurial activities must face. In highly dynamic environments, nonlinear changes are unpredictable, market boundaries become increasingly blurred, and successful business models are difficult to explore. The rapidly changing market and tech-

nological environment pose challenges for firms' open innovation activities (Deng et al., 2021), making it difficult for new ventures to identify, search for, and acquire external information and resources to supplement resource losses. Thus, the role of "bricolage" behavior is more needed to improve post-loss performance in new ventures. In contrast, in highly munificent environments, new ventures can more easily identify, search for, and acquire external information and resources to supplement resource losses, allowing them to integrate newly acquired resources. In such contexts, the role of "optimization" behavior better contributes to improving post-loss performance in new ventures.

Regarding entrepreneurial team cognition, the same resource evolution behaviors may produce differential effects due to differences in the thinking logic behind resource behaviors. As a shared cognition of entrepreneurial teams, the transactive memory system influences team information processing methods, further affecting the relationship between resource evolution and post-loss performance. Specifically, higher specialization in transactive memory systems means entrepreneurial team members can share a broader range of knowledge, helping generate new ideas and achieve resource recombination during resource evolution, thereby promoting post-loss performance improvement. Higher credibility means team members trust and understand each other, enabling them to break through their own cognitive limitations and analyze resource uses from multiple perspectives during resource evolution (Dai et al., 2017), which is beneficial for improving post-loss performance. Higher coordination means team members can better coordinate with each other, work collectively, and reduce the likelihood of conflicts (Yu et al., 2019), strengthening the promoting effect of resource evolution on post-loss performance. This study intends to adopt a research method combining questionnaire surveys and secondary data coding to examine how firms' resource evolution behaviors overcome losses and deliver performance advantages under team cognition and entrepreneurial environments. Analyzing the boundary conditions of resource evolution behaviors' influence on post-loss performance from both external environmental characteristics and internal transactive memory systems, the key lies not in merely 挖掘 the effects of new ventures' resource evolution behaviors in loss contexts but in guiding entrepreneurial teams to construct transactive memory systems and helping new ventures adapt to environmental changes. This will help expand the explanatory boundaries of resource evolution research in loss contexts and fill theoretical gaps.

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