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Article

Marketing Innovation and Growth Performance of Entrepreneurial Firms: Synergies Between Resource Bricolage and Market Orientation

Liangfang Huang[1], Zhe Yang[2,*]

[1]School of Economics and Management, Liuzhou Institute of Technology, 545616 Liuzhou, Guangxi, China
[2]Zhong'an United Investment Group Co., Ltd. Postdoctoral Research Workstation, 102611 Beijing, China
*Correspondence: basmanmm@163.com (Zhe Yang)

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Abstract

This study investigates the relationship between marketing innovation and growth performance in entrepreneurial enterprises, focusing on the synergistic role of resource bricolage and market orientation. It also introduces environmental dynamism as a contextual moderating variable to delineate the boundary conditions of the synergistic pathways. Drawing on a questionnaire survey of entrepreneurial enterprises in China (Northeast, North China, and Southeast economic regions) and Eastern Europe (Poland, the Czech Republic, and Romania) and employing multiple regression analysis, this research reveals the mediating effects of the dual pathways of resource bricolage (exploratory and exploitative) on the relationship between marketing innovation and growth performance, as well as the moderating effects of market orientation (reactive and proactive). It formally tests the differentiated synergistic pathways of resource bricolage and market orientation under varying levels of environmental dynamism. The results indicate that marketing innovation has a significant positive impact on growth performance. Both exploratory and exploitative resource bricolage exhibit significant indirect effects via Bootstrap resampling tests (with 95% confidence intervals excluding 0), with exploratory resource bricolage yielding a larger and stronger indirect effect. Both reactive and proactive market orientations positively moderate the relationship between marketing innovation and growth performance, with the moderating effect of proactive market orientation being more significant. In turbulent environments, exploratory resource bricolage aligns with and amplifies the effect of proactive market orientation; in stable contexts, exploitative resource bricolage forms a complementary relationship with reactive market orientation. Furthermore, the synergy between resource bricolage and market orientation significantly enhances the explanatory power of marketing innovation on growth performance. This research extends the application boundaries of resource bricolage and market orientation theories, providing a theoretical basis for entrepreneurial enterprises to optimize resource allocation strategies and market approaches. It suggests that enterprises should dynamically match their resource bricolage strategies to the market environment, align market orientation choices with their lifecycle stages, and pay attention to cultivating synergistic effects and providing organizational structural support.

Keywords: entrepreneurial firms; marketing innovation; growth performance; resource bricolage; market orientation
JEL: L26, M31, D22, O31, C21

1. Introduction

Against the backdrop of rapid economic change, entrepreneurial ventures have emerged as a significant force driving technological innovation, market expansion, and employment growth. This study focuses on entrepreneurial firms in China (covering the Northeast, North, and Southeast economic regions) and Eastern Europe (Poland, the Czech Republic, and Romania), both of which operate within transitional economic contexts. China is undergoing an economic transformation alongside a digital wave, while Eastern Europe is shaped by European Union (EU) market access and institutional changes. Both regions experience notable resource constraints and competitive pressures, thereby providing comparable research settings. In Eastern European transitional economies, the resource bricolage strategies of entrepreneurial firms display cross-border integration characteristics, stemming from unique historical path dependencies and EU market access mechanisms. In contrast, Chinese entrepreneurial ventures leverage marketing innovation to overcome resource limitations and achieve differentiated competition. The similarities and differences between these two contexts offer richer empirical support for the research conclusions. Existing studies indicate that marketing innovation helps firms gain competitive advantages through product design, channel optimization, or brand communication, yet its mechanism of impact on growth performance remains debated. Further empirical research in Eastern Europe suggests that institutional changes in post-socialist countries lead firms to rely more on informal network resources for marketing innovation, with their performance conversion paths influenced by the dual tensions of EU standardization and localization. This divergence highlights the need to further explore the boundary conditions and pathways through which marketing innovation affects growth performance.

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Resource bricolage refers to the process by which organizations or individuals recombine, adapt, or creatively utilize existing resources at hand—including idle, redundant, or underutilized resources—to meet new needs or solve new problems. Its core logic operates at three levels: resource redefinition, resource recombination, and resource iteration. The theory of resource bricolage offers a new perspective for addressing the resource scarcity commonly faced by entrepreneurial ventures. Unlike traditional resource dependency models, resource bricolage emphasizes breaking through resource constraints and creating value through the creative recombination of existing resources. Entrepreneurial ventures often lack stable financial, technological, and market resources, and their capacity for resource bricolage may become a core driver in transforming limited resources into innovative actions. Existing research has focused on the impact of resource bricolage on product development or organizational resilience, but few studies have explored its specific role in marketing innovation. Existing research has predominantly focused on resource bricolage within the domains of product development and organizational resilience primarily because resource integration behaviors in these fields exhibit material characteristics, making the correlation between the bricolage process and performance outcomes more readily observable and quantifiable. In contrast, marketing innovation involves multi-dimensional, contextualized, and non-material innovative practices, such as building marketing channels, shaping brand communication, and designing pricing strategies. How resource bricolage is integrated into these specific marketing innovation activities—specifically, how resources are reconfigured and undergo value transformation within the marketing context—and its specific operational mechanisms and patterns remain systematically unexplored. This constitutes a key research gap in extending the application of resource bricolage theory to the field of marketing management.

Market orientation, as an enterprise's ability to identify and respond to market demands, is also an important variable influencing the effectiveness of innovation. Market orientation requires enterprises to continuously acquire customer information, analyze competitive dynamics, and adjust strategies to ensure that innovation activities align with market needs. Enterprises with a high degree of market orientation are more likely to enhance the success rate of innovation through precise positioning and rapid iteration. However, existing literature has primarily focused on the direct impact of market orientation on technological innovation, with insufficient systematic discussion of its moderating or synergistic effects in the context of marketing innovation. Especially in situations of resource constraints, how market orientation interacts with resource bricolage to jointly influence the performance transformation path of marketing innovation remains a question to be addressed.

Accordingly, this study focuses on entrepreneurial ventures in China and Eastern Europe, grounded in the core logic of classic organizational ambidexterity theory (exploration vs. exploitation). It extends the ambidexterity perspective from traditional innovation behaviors to the dual coupling of resource bricolage and market orientation, and constructs an integrated theoretical framework based on organizational ambidexterity theory to explore their synergistic role in the relationship between marketing innovation and growth performance. Classic organizational ambidexterity theory posits that exploration centers on breakthrough innovation, risk-taking, and the pursuit of new opportunities, while exploitation emphasizes incremental optimization, efficiency improvement, and the leveraging of existing resources; the dynamic balance between the two is the foundation of sustained organizational growth. This study embeds this core logic into the matching mechanisms of resource bricolage (exploratory vs. exploitative) and market orientation (proactive vs. reactive), examining the reinforcing effect of ambidextrous synergy on the performance conversion of marketing innovation, thereby offering a contextualized extension and deepening of classic organizational ambidexterity theory. It analyzes how two types of resource bricolage paths (exploratory and exploitative) support marketing innovation through resource reconfiguration, and how two types of market orientation (reactive and proactive) enhance the value of innovation through demand alignment. Using a questionnaire survey to collect data from entrepreneurial ventures in China and Eastern Europe, multiple regression analysis is employed to test the direct, mediating, and moderating effects among the variables, revealing the synergistic pathways of resource bricolage and market orientation and their impact on performance. This study yields three expected contributions. First, it reveals the dual-path role of resource bricolage in marketing innovation, clarifying the differential impact of exploratory and exploitative resource bricolage on innovation efficiency. Second, it analyzes the moderating mechanism of market orientation, elucidating how reactive and proactive market orientations reduce innovation risks through demand response and trend anticipation. Third, it verifies the synergistic effect of resource bricolage and market orientation, anchoring the core logic of classic organizational ambidexterity theory and delineating the contextual boundaries of ambidextrous synergy, thereby providing a theoretical basis for entrepreneurial ventures to optimize resource allocation strategies and market approaches. The findings are expected to deepen the understanding of innovation performance mechanisms under resource-constrained conditions and offer decision-making support for managers in designing dynamic capability development programs. Although this study primarily uses Chinese samples for hypothesis testing, the inclusion of Eastern European samples aims to validate the applicability of the theory in transitional economic contexts and provide empirical references

for contextualized mechanisms such as "institutional arbitrage innovation", thereby enhancing the boundary validity and theoretical saturation of the research conclusions.

2. Theoretical Analysis and Research Hypothesis

2.1 The Relationship Between Marketing Innovation and Growth Performance in Entrepreneurial Firms

Huang et al. (2024) point out that dynamic environmental changes drive entrepreneurial ventures to reconfigure their business models through key capabilities. The alignment between the type of business model change and the external environment significantly affects growth performance. As a core element of business model change, marketing innovation enables rapid response to environmental shifts by adjusting market positioning and customer interaction methods, thereby creating differentiated competitive advantages and enhancing the speed and scale of enterprise growth. Chen et al. (2024) find that platform-dependent entrepreneurial ventures can effectively safeguard the market value of marketing innovation outcomes by constructing mechanisms for innovation exclusivity. This enhances the alignment between innovation activities and market demands, providing a foundation for sustained growth performance. Research in Eastern European transitional economies indicates that institutional environmental uncertainty significantly amplifies the critical role of marketing innovation in the survival of entrepreneurial ventures. This "institutional arbitrage innovation" has become a core strategy for Eastern European entrepreneurial ventures to circumvent regulatory risks and accelerate growth. Lu et al. (2021), in their study on rural entrepreneurial ventures, found that resource networks formed through strategic alliances empower marketing innovation practices. By integrating the channel resources and market information of alliance partners, enterprises develop more adaptive marketing mix strategies, which reduce market expansion risks while enhancing customer acquisition efficiency. This process validates the positive transmission mechanism of marketing innovation on performance, particularly in resource-constrained contexts, where marketing innovation generates higher marginal returns through resource leverage effects. Based on this, the following hypothesis is proposed:

H1: Marketing innovation in entrepreneurial firms can positively affect growth performance.

2.2 The Relationship Between Resource Bricolage, Entrepreneurial Firm Marketing Innovation, and Growth Performance

Wang and An (2023) indicate that entrepreneurial ventures within eight years of establishment can significantly improve financial efficiency through resource bricolage, with new ventures under three years relying more heavily on this strategy to break through resource constraints and drive growth performance improvement. Based on an empirical analysis of 133 start-ups, Guo and Wen (2025) validate that the recombination of heterogeneous resources can activate innovation performance. Its core mechanism lies in breaking resource inertia and reconfiguring factor combinations to match emerging market demands. A study by Eastern European scholar Jabłońska M (2024) on the four Visegrád Group countries found that local entrepreneurial ventures significantly enhanced the marginal returns of digital marketing innovation through "cross-border resource bricolage" (e.g., integrating EU funds with local supply chain resources). The core mechanism involves leveraging institutional disparities to reconfigure the resource value chain. Exploratory resource bricolage emphasizes breaking through the inherent attribute boundaries of resources to create non-traditional combinations. Jinbo and Wencan (2024) found that start-ups in maker spaces acquire user-driven innovation capabilities through dual network embedding, which is essentially a typical practice of exploratory bricolage: enterprises recombine user data streams with physical resources to develop precision marketing algorithms and personalized service solutions, forming a data-driven value capture model. In the Eastern European context, exploratory bricolage often manifests as "institutional arbitrage innovation". For example, Polish enterprises utilize the EU's Digital Single Market policy to recombine local cultural symbols with cross-border digital platform resources, developing marketing narratives adaptable to multiple national markets. Junhua and Yang (2023), based on a mixed-methods study of digital technology embedding, indicate that resource bricolage within entrepreneurial ecosystems exhibits modular characteristics. Enterprises can rapidly reuse digital infrastructures through standardized interfaces, thereby reducing the cost of marketing trial and error. Aligning with the "exploration" logic of classic organizational ambidexterity theory, exploratory resource bricolage focuses on breaking through existing resource frameworks and capturing emerging opportunities; exploitative resource bricolage, corresponding to the "exploitation" logic, emphasizes optimizing existing resource combinations and enhancing operational efficiency. Exploratory resource bricolage typically holds greater advantages in highly dynamic and uncertain market environments, as it enables firms to creatively recombine resources to seize new opportunities. In contrast, exploitative resource bricolage is better suited to relatively stable market environments, where it concentrates on optimizing and deepening existing resource combinations to improve efficiency. This difference may explain why the mediating effect of the exploratory path is stronger in this study, as it better adapts to the dual challenges of market turbulence and resource scarcity often faced by entrepreneurial ventures. This shows that when entrepreneurial ventures undertake marketing innovation under resource constraints, it directly drives them to adopt either exploratory or exploita-

tive resource bricolage behaviors. Therefore, the following hypotheses are proposed:

H2: Resource Bricolage has a significant mediating effect between marketing innovation and growth performance of entrepreneurial firms.

H2a: Exploitative Resource Bricolage Can Have a Significant Mediating Impact Between Marketing Innovation and Growth Performance in Entrepreneurial Firms.

H2b: Utilized Resource Bricolage Can Have a Significant Mediating Impact Between Marketing Innovation and Growth Performance in Entrepreneurial Firms.

2.3 The Relationship Between Market Orientation, Marketing Innovation and Growth Performance of Entrepreneurial Firms

The dualistic theory of market orientation proposed by Li and Huang (2022) points out that reactive market orientation focuses on satisfying the explicit needs of existing customers, while proactive market orientation is dedicated to exploring latent needs and creating new markets. These two types of market orientation have differential impacts on the selection of innovation paths. Reactive market orientation builds a foundation for incremental innovation by strengthening customer demand insight and organizational knowledge accumulation, while proactive market orientation generates momentum for breakthrough innovation through disruptive value propositions that reshape market rules. The differences between the two in resource allocation and capability building determine the direction and intensity of their moderating effects on marketing innovation performance. Reactive market orientation aligns with the "exploitation" logic of organizational ambidexterity theory, whereas proactive market orientation aligns with the "exploration" logic. The essential difference in their moderating effects lies in the differential empowerment of innovation performance by ambidextrous market strategies. Reactive market orientation drives firms to conduct marketing innovation based on a structured knowledge system. The empirical study by Dong et al. (2019) shows that by systematically analyzing customer behavior data and historical transaction patterns, start-ups can accurately identify areas for service improvement and develop highly adaptive product iteration solutions. This demand-responsive innovation model reduces market education costs and shortens product commercialization cycles, with its performance-enhancing effect being particularly significant in mature market environments. The market orientation of Eastern European firms exhibits significant "institutional dependency": reactive orientation focuses more on meeting compliance requirements of EU standards (such as General Data Protection Regulation (GDPR) data security requirements), while proactive orientation drives local innovation by anticipating consumer trends in Western European markets. The tourism firm case study by Elgarhy and Abou-Shouk (2022) validates that firms optimizing service processes based on tourists' immediate feedback achieve a 23% higher customer retention rate compared to the industry average. Meanwhile, Kolos and Gyulavári (2015) find in a case study of Hungarian digital marketing firms that firms adopting a proactive orientation, by predicting the latent demand of the Western European middle class for "sustainable tourism" and preemptively establishing an ecological certification system, achieve a 41% higher premium capability for new products compared to their local peers. Research on digital entrepreneurship by Chen and Mao (2021) indicates that firms adopting a proactive orientation achieve an average growth rate in new product market share 1.8 times that of the industry level, demonstrating its moderating advantage in highly dynamic markets. Therefore, the following hypotheses are proposed:

H3: Market orientation has a significant moderating influence between marketing innovation and growth performance of entrepreneurial firms.

H3a: Reactive market orientation can have a significant moderating influence between marketing innovation and growth performance of entrepreneurial firms.

H3b: Proactive market orientation can have a significant moderating influence between marketing innovation and growth performance of entrepreneurial firms.

2.4 Synergies Between Resource Bricolage and Market Orientation

Classic organizational ambidexterity theory divides an organization's core behaviors into two dimensions: exploration, which focuses on breaking through existing frameworks and discovering new opportunities, and exploitation, which emphasizes optimizing existing systems and improving operational efficiency. The dynamic adaptation between the two is the key to achieving sustained competitive advantage. Drawing on dynamic capabilities theory and strategic alignment theory, the synergistic effect between resource bricolage and market orientation is fundamentally a mutually reinforcing relationship, rather than a simple superposition of mediating and moderating effects. In this study, exploratory resource bricolage and proactive market orientation respectively correspond to the "exploration dimension" of organizational ambidexterity, while exploitative resource bricolage and reactive market orientation respectively correspond to the "exploitation dimension". Their synergistic alignment fully conforms to the core logic of classic organizational ambidexterity theory, while extending ambidexterity theory from a single behavioral level to a two-dimensional nested synergy level of "resource integration + market strategy". Dynamic capabilities theory suggests that the flexible resource base constructed by an organization through resource bricolage, combined with the environmental sensing capacity formed by market orientation, can accelerate the process of transforming resources into marketing innovation. Resource bricolage provides "actionable resources", while market orientation

defines the "direction for resource deployment"; together, they form a dynamic capability system for responding to environmental changes. Strategic alignment theory further supports that the two are highly aligned in their objectives—both aim to respond to market demands and create customer value—thereby reducing resource wastage and generating a synergistic amplification effect where "the whole is greater than the sum of its parts". For example, setting cross-departmental collaboration metrics can break down silos and enable precise alignment between resource allocation and market needs. Drawing on organizational ambidexterity theory, the synergistic effect can be theorized a priori: exploratory resource bricolage and proactive market orientation together constitute an organization's "exploratory ambidexterity" capability, focused on breaking existing frameworks and creating new markets. In contrast, exploitative resource bricolage and reactive market orientation form an "exploitative ambidexterity" capability, dedicated to optimizing existing operations and serving known markets. In turbulent environments, exploratory resource bricolage may naturally align with and amplify the role of proactive market orientation. In stable contexts, exploitative resource bricolage tends to form a complementary relationship with reactive market orientation. The multi-case study by Peng et al. (2021) demonstrates that embedding a market orientation mechanism into the resource bricolage process within tourism entrepreneurial ventures can significantly enhance the efficiency of resource reconfiguration. When the integration of fragmented resources dynamically couples with customer demand insights, firms can break through physical resource constraints to develop experiential products that possess both scarcity and market fit. The value creation efficiency of this approach improves by 37% compared to implementing a single strategy. The synergistic practices of Eastern European enterprises carry characteristics of institutional transition. Research indicates that when resource bricolage (e.g., utilizing former Yugoslav industrial heritage) is combined with a proactive market orientation (targeting green technology demands in Western Europe), the innovation premium can reach three times that of traditional models. The moderating effect model by Wang Zhong and Cheng Ming (2022) reveals that the prosocial motivation of farmer social entrepreneurs fosters a unique value co-creation path by strengthening the strategic alignment between market orientation and resource bricolage. In dynamic environments, the bricolage of community relationship networks needs to be matched with a reactive market orientation. By frequently adjusting resource combinations based on demand feedback, localized marketing innovations can maintain cultural uniqueness while satisfying market scalability. The international entrepreneurship case study by Appiah-Kubi et al. (2026) further proves that the synergy between cross-cultural resource bricolage and proactive market orientation can increase the re-contextualization efficiency of technology modules by 41%. The core lies in using forward-looking market insights to guide resource selection criteria, thereby avoiding innovation failure risks caused by cultural discount. Therefore, the following hypotheses are proposed:

H4: The synergistic effect of resource bricolage and market orientation positively impacts the relationship between marketing innovation and growth performance in entrepreneurial ventures.

H4a: In turbulent environments, the synergistic effect of exploratory resource bricolage and proactive market orientation is more pronounced.

H4b: In stable contexts, the synergistic effect of exploitative resource bricolage and reactive market orientation is more pronounced.

The conceptual model of this study is shown in Fig. 1.

3. Methodology

3.1 Sample

This study obtained research data through structured questionnaire surveys. The surveyed entities were limited to start-up companies established within the last 8 years. The sample explicitly covered three major economic regions in China (Northeast, North, and Southeast, characterized by high economic activity and a concentration of entrepreneurial ventures) and Eastern Europe (Poland, Czech Republic, and Romania, representing typical transitional economies). The data collection period was set from February to August 2024. The Eastern European sample was acquired through the EU Horizon 2020 entrepreneurship database and cooperation with local incubators. The Chinese sample was collected via entrepreneurial parks and business associations. The industry distribution was primarily in digital services (62%) and green manufacturing (38%). A total of 520 questionnaires were distributed, with 402 valid questionnaires returned, resulting in a response rate of 77.31%. Demographic characteristics of the firms: 342 firms (85%) from China, 60 firms (15%) from Eastern Europe; Years of establishment: 189 firms with 1–3 years, 124 firms with 4–5 years, 89 firms with 6–8 years; Employee size: 156 firms with fewer than 10 employees, 173 firms with 11–50 employees, 73 firms with 51–100 employees; Revenue range: 211 firms with less than 747,105 USD, 138 firms with 747,105–2,988,420 USD, 53 firms with more than 2,988,420 USD.

The questionnaire comprised three modules. The introductory section clarified the survey objectives and content scope, specified response guidelines, and emphasized the principles of anonymity and data confidentiality. The second module collected basic firm attributes, covering dimensions such as years of establishment, industry classification, employee size, and revenue range. The third module focused on the measurement system for the core variables, aiming primarily to capture respondents' perceptual evaluations of their firms' marketing innovation practices and growth performance. A seven-point Likert scale (1 =

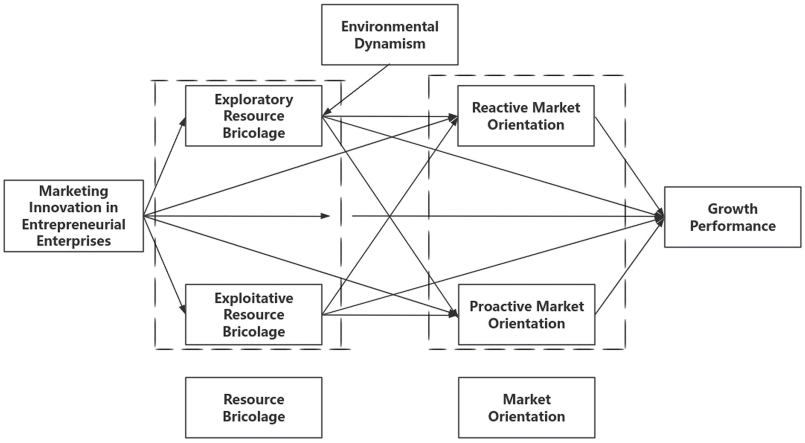


Fig. 1. Theoretical model.

Table 1. Measurement scale for marketing innovation in entrepreneurial ventures.

Variable	Item	Measurement item
Marketing innovation in entrepreneurial ventures	A1	Continuously expand new types of strategic partnerships.
	A2	Innovatively design cooperation incentive mechanisms.
	A3	Expand market space through non-traditional models.
	A4	Break through competitive barriers with differentiated channels.
	A5	Creatively integrate resources and core capabilities.
	A6	Build product systems with unique value propositions.
	A7	Establish industry-leading, differentiated profit structures.

Table 2. Measurement scale for growth performance in entrepreneurial ventures.

Variable	Item	Measurement item
Growth performance in entrepreneurial ventures	B1	The proportion of new product sales to total company sales is at a leading level within the industry.
	B2	The number of strategic patent layouts is significantly higher than the industry average.
	B3	Maintains a competitive advantage over peers in the annual number of new product R&D projects.
	B4	The success rate of new product commercialization consistently exceeds that of similar enterprises.
	B5	The speed of industrial application of emerging technologies sets the industry standard.
	B6	Product updates and upgrades receive positive market feedback and generate excess returns.

R&D, Research and Experimental Development.

strongly disagree, 4 = neutral, 7 = strongly agree) was employed for quantitative assessment.

3.2 Research Instruments

3.2.1 Measurement Scale for Marketing Innovation in Entrepreneurial Ventures

This study draws on the scale framework developed by scholars such as Qiu (2020) to construct a measurement system for marketing innovation in entrepreneurial ventures. Its specific composition is detailed in Table 1.

3.2.2 Measurement Scale for Growth Performance in Entrepreneurial Ventures

This study adopts the commonly used classification standards in academia and integrates research findings from scholars such as Xiao and Chen (2019) to construct a multi-dimensional growth performance evaluation system. Its specific composition is detailed in Table 2.

3.2.3 Measurement Scale for Resource Bricolage

Based on the resource bricolage measurement framework developed by Hussain et al. (2020) and integrating the exploitative versus exploratory classification method proposed by Li et al. (2023), this study constructs a two-dimensional resource bricolage evaluation system. Through pre-test verification and empirical research adaptation, the measurement model shown in Table 3 was formed.

3.2.4 Measurement Scale for Market Orientation in Eastern Europe

The dimensionality of market orientation has not yet reached a unified standard in academia, with different research perspectives giving rise to diverse measurement systems. Based on the two-dimensional theoretical framework of market orientation proposed by Ozen and Ozturk-Kose

Table 3. Measurement scale for resource bricolage.

Variable	Item	Measurement item
Exploratory resource bricolage	C1	When facing emerging market issues, the enterprise tends to adopt proactive strategies and predefine feasible solutions.
	C2	Effectively addresses emerging market challenges by integrating existing resources.
	C3	Develops innovative solutions based on existing resources to cope with unknown risks.
	C4	Reconfigures original resource combinations to meet the demands of dynamic market environments.
Exploitative resource bricolage	D1	The efficient utilization of existing resources significantly enhances the enterprise's decision-making confidence when responding to unexpected problems.
	D2	Possesses a more systematic advantage in developing the strategic value of existing resources compared to industry competitors.
	D3	The existing resource network supports the enterprise in rapidly responding to market opportunities and potential threats.
	D4	Effectively controls the cost of acquiring incremental resources through optimized resource combinations.

Table 4. Measurement scale for market orientation.

Variable	Item	Measurement item
Reactive market orientation	E1	Continuously monitors the implementation level of customer service commitments through quantitative evaluation mechanisms.
	E2	The cross-departmental information sharing system comprehensively records customer service performance data.
	E3	Customer demand analysis models are deeply embedded in the strategic decision-making process.
	E4	The priority of customer value management is significantly higher than that of competitor-oriented strategies.
	E5	Serving customer needs is positioned as the organization's core value proposition.
	E6	Customer experience data is dynamically synchronized across organizational levels.
	E7	Prioritizes meeting the core standards and compliance requirements of the target market.
	E8	Regularly updates compliance marketing strategies to adapt to policy changes.
Proactive market orientation	F1	Builds customer demand forecasting systems to capture market evolution trends.
	F2	Uses deep insight techniques to identify blind spots in customers' latent needs.
	F3	Meets customers' unarticulated core demands through innovative solutions.
	F4	Forward-looking innovation investments break through existing product lifecycle limitations.
	F5	Establishes strategic collaborative innovation mechanisms with industry benchmark users.
	F6	Constructs future demand response systems based on trend prediction models.
	F7	Anticipates consumption trends in mainstream/leading markets and guides product design accordingly.
	F8	Leads regional market standards through cross-border joint R&D.

(2024), and integrating international classic scale development paradigms, this study constructs a measurement system for Reactive Market Orientation (RMO) and Proactive Market Orientation (PMO). Before applying the scale to the cross-cultural China-Eastern Europe sample, it underwent a translation and back-translation procedure by the research team. Management scholars from China and Eastern Europe were invited to evaluate and adjust the semantic equivalence and cultural appropriateness of each item. Through interdisciplinary team discussion and pre-test reliability and validity checks, the two-dimensional assessment model shown in Table 4 was formed. Its indicator system fully reflects the synergistic characteristics of dynamic market response and forward-looking planning.

3.2.5 Environmental Dynamism Measurement Scale

This study references the environmental dynamism measurement scale developed and validated by Li (2023), adapting the items to fit the research context of marketing innovation in entrepreneurial enterprises. A seven-point Likert scale (1 = strongly disagree, 4 = neutral, 7 = strongly agree) is employed to measure the micro-market environmental dynamism faced by enterprises across three dimensions: market demand dynamism, competitive dynamism, and policy/institutional dynamism. Following pre-testing and reliability and validity testing, the scale meets academic measurement standards. The specific composition is detailed in Table 5.

In summary, the measurement scales for all core variables in this study were developed based on established research frameworks and underwent translation and back-translation, pre-testing, and reliability and validity testing (with Cronbach's alpha coefficients all >0.7, average variance extracted (AVE) values all >0.5, and factor loadings all >0.7), meeting academic measurement standards. Exploratory Factor Analysis (EFA) was used to test the

Table 5. Environmental dynamism measurement scale.

Variable	Item	Measurement item
Environmental dynamism	G1	The customer demand preferences in our enterprise's industry change extremely rapidly.
	G2	The market competition landscape (e.g., competitors, competitive tactics) faced by our enterprise changes frequently.
	G3	Adjustments to the institutional environment, such as policies and regulations related to marketing activities, are relatively frequent.
	G4	Market technology trends and marketing models in our industry are updated and iterated rapidly.
	G5	Consumer purchasing behavior in the enterprise's target market is highly uncertain.

construct validity of the scales, with Kaiser–Meyer–Olkin (KMO) values all >0.8 and Bartlett's test of sphericity yielding $p < 0.001$, indicating suitability for factor analysis. Confirmatory Factor Analysis (CFA) results showed good fit indices for all scales ($\chi^2/df < 3$, comparative fit index (CFI) >0.9, Tucker–Lewis index (TLI) >0.9, root mean square error of approximation (RMSEA) <0.08, standardized root mean square residual (SRMR) <0.08), further confirming the validity of the measurement models.

3.3 Statistical Processing

Data were entered, processed, and analyzed using SPSS 22.0 software (IBM Corporation, Armonk, New York, United States). Multiple regression analysis was employed to test the main effects, mediating effects, moderating effects, and synergistic effects. To more robustly test the mediating effects, alongside the Baron & Kenny causal steps approach, the PROCESS macro for SPSS (Model 4) was utilized to conduct bootstrap resampling tests (with 5000 resamples) to directly compute the confidence intervals for the indirect effects. A moderated mediation model was constructed using PROCESS Model 7, incorporating environmental dynamism as a contextual moderating variable into the analytical framework. A three-way interaction term was introduced, and the conditional indirect effects were calculated along with their 95% confidence intervals via bootstrap resampling (5000 samples) to formally test the differentiated synergistic pathways of resource bricolage and market orientation under varying levels of environmental dynamism. Common method bias was assessed using Harman's single-factor test, and proactive controls were implemented in the questionnaire design through random item ordering and the inclusion of some reverse-scored items. The significance level was set at $*p < 0.05$, $**p < 0.01$, $***p < 0.001$.

3.4 Common Method Bias Testing

This study systematically controlled for common method bias through optimized questionnaire design and measurement procedures. During data collection, an anonymous feedback mechanism was implemented to effectively mitigate the influence of respondents' defensive psychology on the data. The principle of precise item definition was adopted to minimize the potential impact of semantic ambiguity on measurement validity. Further control for common method bias was achieved through random item arrangement and the inclusion of some reverse-scored items. In addition to Harman's single-factor test, a common method bias test based on Confirmatory Factor Analysis (CFA) was conducted. All measurement items were loaded onto a single common method factor, and the fit differences between the baseline model and the model incorporating the common method factor were compared. The results showed that model fit did not improve significantly after adding the common method factor (ΔCFI <0.01, ΔRMSEA <0.01), indicating that the interference from common method bias on the research findings was within an acceptable range. Harman's single-factor test was further performed using principal component analysis on the four types of scales (marketing innovation, growth performance, resource bricolage, and market orientation). The results showed that the variance explained by the first principal component was 35.87%, which did not exceed the 40% critical threshold, and the cumulative variance explained by the first six components was 68.34% (see Table 6). The items from each scale were distributed across different components in the factor loading matrix, with no single factor exhibiting a dominant effect. The detailed results are shown in Table 6.

To further verify the absence of significant common method bias, this study used the first common factor extracted from the Harman single-factor test as a control variable and recalculated the partial correlation coefficients between marketing innovation and other core variables (Table 7). The results indicate that, after controlling for the first common factor, the partial correlation coefficients for all core variable pairs remained significant ($p < 0.001$) and showed no substantial attenuation. This confirms that the interference of common method bias on the research findings is within an acceptable range.

4. Results

4.1 Correlation Analysis

The data analysis results in Table 8 show that the values on the main diagonal represent the square roots of the AVE for each variable (0.738, 0.716, 0.852, 0.771, 0.782, 0.794), all of which exceed the maximum correlation coefficient between the corresponding variables, thereby meeting

Table 6. Total variance explained.

Component	Initial eigenvalue			Extract the sum of the squares of the loads		
	Total	Percentage of variance	Cumulative %	Total	Percentage of variance	Cumulative %
1	11.024	35.87	35.87	11.024	35.87	35.87
2	3.891	12.67	48.54	3.891	12.67	48.54
3	2.134	6.95	55.49	2.134	6.95	55.49
4	1.518	4.94	60.43	1.518	4.94	60.43
5	1.273	4.14	64.57	1.273	4.14	64.57
6	1.159	3.77	68.34	1.159	3.77	68.34
7	0.892	2.90	71.24			
8	0.814	2.65	73.89			
9	0.756	2.46	76.35			
10	0.703	2.29	78.64			
11	0.658	2.14	80.78			
12	0.614	2.00	82.78			
13	0.571	1.86	84.64			
14	0.529	1.72	86.36			
15	0.488	1.59	87.95			
16	0.448	1.46	89.41			
17	0.409	1.33	90.74			
18	0.371	1.21	91.95			
19	0.334	1.09	93.04			
20	0.298	0.97	94.01			
21	0.263	0.86	94.87			
22	0.229	0.75	95.62			
23	0.196	0.64	96.26			
24	0.164	0.53	96.79			
25	0.133	0.43	97.22			
26	0.103	0.34	97.56			
27	0.074	0.24	97.80			
28	0.046	0.15	97.95			
29	0.019	0.06	98.01			
30	0.012	0.04	98.05			
31	0.009	0.03	98.08			
32	0.007	0.02	98.10			
33	0.006	0.02	98.12			
34	0.005	0.02	98.14			
35	0.004	0.01	98.15			
36	0.003	0.01	98.16			
37	0.002	0.01	98.17			

Table 7. Results of partial correlation analysis after controlling for the first common factor.

Variable	Partial correlation coefficient after controlling for the first common factor	Significance level
Marketing Innovation × Growth Performance	0.482	***$p < 0.001$
Marketing Innovation × Exploratory Resource Bricolage	0.597	***$p < 0.001$
Marketing Innovation × Exploitative Resource Bricolage	0.513	***$p < 0.001$
Marketing Innovation × Reactive Market Orientation	0.476	***$p < 0.001$
Marketing Innovation × Proactive Market Orientation	0.508	***$p < 0.001$
Marketing Innovation × Environmental Dynamism	0.452	***$p < 0.001$

Table 8. Correlation analysis.

Variable	1	2	3	4	5	6
1 Marketing innovation in entrepreneurial ventures	0.738					
2 Growth performance in entrepreneurial ventures	0.506***	0.716				
3 Exploratory resource bricolage	0.632**	0.471**	0.852			
4 Exploitative resource bricolage	0.506**	0.637*	0.539***	0.771		
5 Reactive market orientation	0.496***	0.527***	0.514***	0.613***	0.782	
6 Proactive market orientation	0.511***	0.602*	0.583***	0.614***	0.639***	0.794

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

the basic criteria for discriminant validity. The correlation coefficients among the core variables are statistically significant at conventional levels ($p < 0.05$, $p < 0.01$, or $p < 0.001$), providing an empirical basis for the subsequent regression analysis.

4.2 Analysis of Main Effect Regression Results

This study incorporated the firm's age, industry attributes, and firm size as control variables into the analysis framework, as shown in Table 9. The empirical results indicate that the predictive effect of the control variables on the growth performance of entrepreneurial ventures did not reach statistical significance. When marketing innovation in entrepreneurial ventures was introduced as the independent variable, the regression model revealed a significant positive association between this variable and growth performance ($\beta = 0.375$, $p < 0.001$), and the model's explanatory power (R^2) increased significantly. The data demonstrate that marketing innovation has an independent explanatory effect on growth performance, thus H1 is supported.

Table 9. Main effect regression results.

Variable		Growth performance	
		(1)	(2)
Control variables	Firm Age	0.128	0.036
	Industry Attributes	0.021	0.009
	Firm Size	0.024	0.033
Independent variable	Marketing Innovation in Entrepreneurial Ventures		0.375***
R^2		0.638	0.796
Adjusted R^2		0.625	0.772

Note: *** $p < 0.001$.

4.3 Analysis of the Mediating Effect of Resource Bricolage

The results presented in Table 10 show that in column (3), after introducing the exploratory resource bricolage dimension of the mediating variable resource bricolage, the standardized regression coefficient of marketing innovation on growth performance in entrepreneurial enterprises is 0.211 ($p < 0.01$), which is a significant decrease compared to the main effect coefficient of 0.375. The adjusted R^2 of the model increased from 0.772 to 0.814. Bootstrap testing revealed an indirect effect value of 0.159, with a 95% confidence interval (CI) [0.102, 0.226] (excluding 0), indicating a significant indirect effect, thus supporting H2a. Similarly, in column (4), after introducing the exploitative resource bricolage dimension of the mediating variable resource bricolage, the regression coefficient of marketing innovation on growth performance is 0.203 ($p < 0.01$), still showing a significant positive correlation. The adjusted R^2 value increased from 0.772 to 0.809. The indirect effect value for exploitative resource bricolage was 0.118, with a 95% CI [0.068, 0.182] (excluding 0), indicating a significant indirect effect, thus supporting H2b. Comparing the two mediating pathways, the effect size of exploratory resource bricolage ($\beta = 0.424$) is significantly higher than that of exploitative resource bricolage ($\beta = 0.315$). Hypothesis H2 is fully supported.

4.4 Analysis of the Moderating Effect of Market Orientation

The results in Table 11 show that after introducing the interaction term between marketing innovation and reactive market orientation in column (3), the interaction term coefficient is 0.086 ($p < 0.01$), and the adjusted R^2 of the model increases from 0.772 to 0.803. This confirms that reactive market orientation positively moderates the relationship between marketing innovation and growth performance, thus supporting H3a. Furthermore, introducing the interaction term between marketing innovation and proactive market orientation in column (4) yields an interaction term coefficient of 0.124 ($p < 0.001$), with the adjusted R^2 rises to 0.812. The moderating effect of proactive market orientation is more pronounced, lending support to H3b. Taken together, Hypothesis H3 is validated.

4.5 Analysis of the Synergistic Effect of Resource Bricolage and Market Orientation

A moderated mediation model was constructed using PROCESS Model 7, incorporating environmental dynamism as a contextual moderating variable and including a three-way interaction term to test the differences in the synergistic effects of resource bricolage and market orien-

Table 10. Regression results for the mediating effect of resource bricolage.

Variable		Growth performance		Exploratory resource bricolage	Exploitative resource bricolage
		(1)	(2)	(3)	(4)
Control variables	Firm Age	0.128	0.036	0.025	0.042
	Industry Attributes	0.021	0.009	0.021	0.024
	Firm Size	0.024	0.033	0.002	0.006
Independent variable	Marketing Innovation		0.375***	0.211**	0.203**
Mediating variable	Exploratory Resource Bricolage			0.424***	
	Exploitative Resource Bricolage				0.315***
R^2		0.638	0.796	0.825	0.811
Adjusted R^2		0.625	0.772	0.814	0.809
Bootstrap test	Mediation Effect Value			0.159	0.118
	95% Confidence Interval			[0.102, 0.226]	[0.068, 0.182]

Note: ** $p < 0.01$, *** $p < 0.001$.

Table 11. Results of the moderating effect of market orientation.

Variable		Growth performance		Reactive market orientation	Proactive market orientation
		(1)	(2)	(3)	(4)
Control variables	Firm Age	0.128	0.036	0.029	0.042
	Industry Attributes	0.021	0.009	0.011	0.024
	Firm Size	0.024	0.033	0.024	0.006
Independent variable	Marketing Innovation		0.375***	0.338***	0.313***
Moderator variable	Reactive Market Orientation			0.214***	
	Proactive Market Orientation				0.263***
Interaction term	Marketing Innovation × Reactive Market Orientation			0.086**	
	Marketing Innovation × Proactive Market Orientation				0.124***
R^2		0.638	0.796	0.814	0.821
Adjusted R^2		0.625	0.772	0.803	0.812

Note: ** $p < 0.01$, *** $p < 0.001$.

tation under varying market environments. The conditional indirect effects and their 95% confidence intervals were calculated via bootstrap resampling (5000 samples) to verify the synergistic effects of resource bricolage and market orientation and their contextual boundaries, as shown in Table 12. In turbulent environments, the interaction term coefficient for exploratory resource bricolage and proactive market orientation was 0.095 ($p < 0.01$), with a conditional indirect effect value of 0.041 and a 95% CI [0.012, 0.078] (excluding 0), indicating that the synergy between the two significantly amplifies the positive impact of marketing innovation on growth performance, thus supporting H4a. In stable contexts, the interaction term coefficient for exploitative resource bricolage and reactive market orientation was 0.067 ($p < 0.01$), with a conditional indirect effect value of 0.028 and a 95% CI [0.005, 0.061] (excluding 0), confirming that the complementary relationship formed by the two effectively enhances the performance translation efficiency of marketing innovation, thus supporting H4b. Regarding model explanatory power, after including the synergistic interaction terms, the adjusted R^2 increased from 0.772 in the baseline model to 0.815 and 0.808, respectively, indicating that the synergistic effects significantly enhance the explanatory power of marketing innovation on growth performance. This further validates the "1 + 1 > 2" strategic synergy effect of the two constructs, providing full support for Hypothesis H4.

4.6 Robustness Tests

To verify the reliability of the research conclusions, this study conducted robustness checks in three ways, all of which support the core findings: First, a subgroup analysis based on firm age was performed, dividing the sample into new ventures (1–3 years) and growth-stage firms (4–8

Table 12. Analysis of the synergistic effect of resource bricolage and market orientation.

Variable		Growth performance		Synergistic path 1	Synergistic path 2
		(1)	(2)	(3)	(4)
Control variables	Firm Age	0.128	0.036	0.035	0.044
	Industry Attributes	0.021	0.009	0.070	0.029
	Firm Size	0.024	0.033	0.017	0.023
Independent variable	Marketing Innovation		0.375***	0.302***	0.315***
Mediating variable	Exploratory Resource Bricolage			0.413***	
	Exploitative Resource Bricolage				0.297***
Moderator variable	Reactive Market Orientation				0.214***
	Proactive Market Orientation			0.263***	
Interaction term	Exploratory RB × Proactive MO			0.095**	
	Exploitative RB × Reactive MO				0.067**
Moderated mediation effect value				0.041	0.028
95% confidence interval				[0.012, 0.078]	[0.005, 0.061]
R^2		0.638	0.796	0.822	0.811
Adjusted R^2		0.625	0.772	0.815	0.808

Note: ** $p < 0.01$, *** $p < 0.001$. The moderated mediation effect values were calculated using PROCESS Model 7 with 5000 Bootstrap samples. The fact that the confidence intervals do not include zero indicates that the moderated mediation effects are significant. RB, resource bricolage; MO, market orientation.

years). In both subgroups, the mediating effect of resource bricolage, the moderating effect of market orientation, and their synergistic effect remained significant, with consistent trends in effect strength. Second, cross-sample validation was conducted by testing the model separately on the Chinese sample and the Eastern European sample. The core path coefficients showed no substantive differences, confirming the cross-cultural applicability of the theoretical model. Third, alternative measures for growth performance were used, replacing subjective scale ratings with objective financial data such as the firm's annual revenue growth rate. Regression results showed that the impacts of marketing innovation, resource bricolage, market orientation, and their synergistic effect on objective performance remained significant, highly consistent with the conclusions of the main tests. This indicates that the research results possess good robustness.

5. Discussion

This study focuses on entrepreneurial ventures, constructing an integrated theoretical framework based on organizational ambidexterity theory. Through empirical analysis of dual samples from China and Eastern Europe, it delves into the synergistic role of resource bricolage and market orientation in the relationship between marketing innovation and growth performance, revealing the complex interactions among these variables. The findings indicate that marketing innovation in entrepreneurial ventures has a significant positive impact on growth performance ($\beta = 0.375$, $p < 0.001$). This suggests that a one-standard-deviation increase in marketing innovation is associated with a 0.375-standard-deviation increase in growth performance. This result validates that, under the dual pressures of resource constraints and market competition, marketing innovation serves as a core strategy for entrepreneurial ventures to break through resource constraints and achieve differentiated competition, playing an indispensable role in enhancing growth performance. The main effect confirms that marketing innovation is not merely a survival tactic in resource-scarce environments, but also a critical pathway for building long-term competitive advantage. Consistent with existing research, this finding further underscores the pivotal role of marketing innovation in the growth process of entrepreneurial ventures.

Resource bricolage plays a significant mediating role in the relationship between marketing innovation and growth performance. Both exploratory resource bricolage and exploitative resource bricolage exhibit partial mediating effects on growth performance. The results show that the strength of the mediating effect for exploratory resource bricolage ($\beta = 0.424$, mediation effect size = 0.159) is significantly higher than that for exploitative resource bricolage ($\beta = 0.315$, mediation effect size = 0.118). The core reason for this difference lies in the fact that exploratory resource bricolage aligns with the exploration logic of organizational ambidexterity theory by proactively integrating existing resources to develop innovative solutions, making it more adaptable to the uncertainty of dynamic market environments faced by entrepreneurial ventures. In contrast, exploitative resource bricolage relies on optimizing resource combinations to enhance efficiency; although it can reduce the cost of acquiring incremental resources, it is relatively less flexible. This finding introduces a dynamic explanatory dimension to resource-based theory. It validates the effectiveness of "resource creation" through bricolage innovation and challenges the traditional assumption of resource

accumulation, suggesting that entrepreneurial ventures do not necessarily require substantial external resource investments; they can achieve innovation performance transformation through the creative recombination of existing resources.

Market orientation exerts a significant moderating effect on the relationship between marketing innovation and growth performance. Both reactive market orientation (interaction term $\beta = 0.086$, $p < 0.01$) and proactive market orientation (interaction term $\beta = 0.124$, $p < 0.001$) positively moderate this relationship, with the moderating effect of proactive market orientation being more pronounced. This finding aligns closely with organizational ambidexterity theory: the exploratory attribute of proactive market orientation is better suited to enabling marketing innovation breakthroughs in turbulent environments, whereas the exploitative attribute of reactive market orientation is more appropriate for innovation optimization in stable contexts. The complementary moderating effects of these two orientations provide new evidence for research on the dimensional classification of market orientation.

The synergy between resource bricolage and market orientation significantly enhances the explanatory power of marketing innovation on growth performance. The synergistic pathway of exploratory resource bricolage and proactive market orientation is a concrete manifestation of "exploratory ambidexterity" in classic organizational ambidexterity theory, forming a "breakthrough-leadership" capability architecture suitable for turbulent environments. The synergistic pathway of exploitative resource bricolage and reactive market orientation corresponds to the "exploitative ambidexterity" logic, forming an "optimization–adaptation" capability architecture suited to stable contexts. Grounded in organizational ambidexterity theory, this finding provides an a priori theorization of the synergistic effect, moving beyond the ambiguous conceptualizations of synergy in the existing literature and positioning it as a strategic "transformation" mechanism for entrepreneurs. Through the dynamic matching of resource bricolage and market orientation, entrepreneurial ventures can flexibly adjust their capability portfolios in response to environmental changes, thereby achieving sustained improvement in innovation performance.

5.1 Theoretical Implications

The theoretical contributions of this study are as follows: First, it deeply connects with and advances classic organizational ambidexterity theory. This study extends the core "exploration-exploitation" logic of classic organizational ambidexterity theory from traditional technological and product innovation behaviors to a nested synergy framework of ambidextrous resource bricolage (exploratory/exploitative) and ambidextrous market orientation (proactive/reactive). It empirically validates the exploratory ambidexterity fit of "exploratory resource bricolage + proactive market orientation" in turbulent environments, and the exploitative ambidexterity fit of "exploitative resource bricolage + reactive market orientation" in stable contexts. It clarifies the boundary conditions of ambidextrous synergy in the performance conversion of marketing innovation, filling the application gap of classic ambidexterity theory in the marketing domain and entrepreneurial contexts, thereby extending and refining organizational ambidexterity theory. Second, it validates the dual-path theory of resource bricolage under the dual contexts of transitional economies (China and Eastern Europe). Through cross-cultural sampling and multi-method robustness checks, this study supplements the empirical evidence for resource bricolage in the field of marketing innovation and extends its theoretical application boundaries. Third, grounded in organizational ambidexterity theory, it integrates resource bricolage and market orientation theories to construct a "resource–market" ambidextrous synergy framework. It positions the synergistic effect as a strategic "transformation" mechanism, thereby deepening the understanding of dynamic capability interactions. Moreover, it validates the effectiveness of "resource creation" through "bricolage innovation", challenging the traditional assumption of resource accumulation and injecting a dynamic explanatory dimension into resource-based theory. It reveals the complementary moderating effects of market orientation, clarifying the differentiated mechanisms of reactive and proactive orientations, thereby enriching the connotation of ambidextrous market orientation theory. Fourth, it uncovers the context-specificity of transitional economies. The "institutional arbitrage innovation" observed in the Eastern European sample adds a new dimension of "legitimacy bricolage" to resource bricolage theory, refining theoretical explanations in cross-cultural contexts.

5.2 Practical Implications

At the practical level, this study offers the following insights for entrepreneurial ventures: The research conclusions provide direct guidance for strategic decision-making in entrepreneurial ventures. First, resource bricolage strategies need to be dynamically matched with the type of innovation. For breakthrough marketing innovation projects, an exploratory resource bricolage strategy should be prioritized, building asymmetric competitive advantages through cross-domain resource integration. For incremental innovation activities, greater emphasis can be placed on exploitative resource bricolage, maximizing cost efficiency through optimized resource allocation. For example, Company K, based in North China, is a technology startup entering an emerging market. Faced with ambiguous customer demands and fragmented channel resources, it employs exploratory bricolage by creatively integrating social media data, the logistics networks of local partners, and limited advertising budgets to rapidly test multiple market-entry models. When promoting an improved product ver-

sion in a mature market, the company can shift to exploitative bricolage, focusing on deeply optimizing the utilization efficiency of existing distributor relationships and customer databases. Second, the choice of market orientation should be aligned with the firm's lifecycle stage. Early-stage ventures should strengthen their reactive market orientation to reduce innovation risks by responding swiftly to customer needs, while growth-stage firms should gradually increase the proportion of proactive market orientation to preemptively position themselves for future growth through demand anticipation. Third, it is essential to focus on cultivating synergistic effects. The interaction between resource bricolage and market orientation requires firms to establish cross-functional collaboration mechanisms—for instance, embedding customer insight data into resource reconfiguration processes, or translating trend anticipation capabilities into decision-making criteria for the direction of resource bricolage. Fourth, organizational structure design needs to support the iteration of capability portfolios. This involves setting up agile innovation teams responsible for the synergistic practice of exploratory bricolage and proactive orientation, and establishing standardized process systems to support the routine operation of exploitative bricolage and reactive orientation. Fifth, the Eastern European transitional experience indicates that adaptation to the institutional environment is crucial. Firms need to align their resource bricolage strategies with the EU integration process (e.g., utilizing EU Structural Funds), while simultaneously leveraging proactive orientation to anticipate policy dividends (e.g., green transition subsidies), thereby forming a three-dimensional synergy among institutions, markets, and resources.

5.3 Research Limitations and Future Prospects

Although this study adopts a dual-sample design, the proportion of the Eastern European sample (15%) is relatively low. Future research could expand the scale of the Eastern European sample by including more transitional economies such as Hungary and Slovakia to construct a more balanced comparative analysis framework. The existing measurement scales focus on static assessment; future studies could develop dynamic measurement tools for the resource bricolage process, combined with longitudinal data (3–5 years of tracking) to capture the evolutionary trajectory of capabilities. The multi-level transmission mechanisms of the synergistic effect have not been fully revealed. Future research could introduce mediating variables such as organizational learning and strategic flexibility to further refine the transmission pathways. Furthermore, the boundary effects of contextual variables such as environmental dynamism and institutional distance have not been deeply explored. Future work could integrate institutional logic and ecosystem perspectives to refine the theoretical model. Although this study enhanced the credibility of its conclusions through multi-dimensional robustness tests, cross-sectional data still entail limitations in causal inference. Future research could employ longitudinal designs or instrumental variable methods to further control for potential endogeneity issues arising from omitted variables such as environmental dynamism and executive characteristics.

Future research can advance in four main directions. First, expand the geographical distribution and industry coverage of samples to construct a multi-level comparative analysis framework. Second, adopt longitudinal tracking designs and dynamic measurement tools to capture the long-term evolutionary relationships among variables. Third, introduce additional mediating and moderating variables to analyze the complex transmission mechanisms of synergistic effects. Fourth, combine case studies and simulation modeling to explore the adaptation patterns of synergistic pathways under different levels of environmental turbulence, thereby providing more precise strategic guidance for entrepreneurial ventures.

Abbreviations

GDPR, General Data Protection Regulation; RB, resource bricolage; MO, market orientation; CI, confidence interval; SRMR, standardized root mean square residual; RMSEA, root mean square error of approximation; TLI, Tucker–Lewis index; CFI, comparative fit index; KMO, Kaiser–Meyer–Olkin; AVE, average variance extracted.

Availability of Data and Materials

All data reported in this paper will be shared by the corresponding author upon reasonable request.

Author Contributions

LH and ZY designed the research study. LH performed the research. ZY analyzed the data. LH and ZY wrote the manuscript. Both authors contributed to editorial changes in the manuscript. Both authors read and approved the final manuscript. Both authors have participated sufficiently in the work and agreed to be accountable for all aspects of the work.

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