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Entrepreneurial Bricolage, Pivoting, and Business Performance: Strategic Adaptation in Service Firms

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Abstract. This study examines the relationship between entrepreneurial bricolage and business performance in service firms, with particular emphasis on service-system adaptation, operational flexibility, and strategic coordination within intangible service environments. The findings reveal that recombining available resources and maintaining strategic flexibility positively influence business performance through effective pivoting, especially within service industries characterized by intangible resources, digital coordination requirements, and high environmental uncertainty. Using survey data from early-stage service firms, this study conceptualizes entrepreneurial bricolage through three dimensions—resource recombination, problem-solving orientation, and network utilization—while pivoting is categorized as customer, product/service, revenue model, and internal process pivoting. The empirical results reveal differentiated effects of bricolage across pivoting types. Problem-solving orientation positively influences customer, product/service, and revenue model pivoting, whereas network utilization positively affects product/service and internal process pivoting and directly improves business performance. Among the pivoting types, customer pivoting and internal process pivoting significantly improve business performance. Mediation analysis confirms significant indirect effects, with all four pivoting types linking bricolage to business performance. These findings highlight pivoting as a key mechanism through which entrepreneurial bricolage translates resource recombination into business performance, offering new insights into how resource-constrained firms achieve performance improvements through strategic adaptation.

Keywords: entrepreneurial bricolage; pivoting; service firms; business performance; mediation

1. Introduction

Recent business environments are marked by growing uncertainty and complexity. Rapid shifts in industrial structures and consumer demands have become common (Verhoef & Bijmolt, 2019). Technological advancements and intensified global competition weaken the predictability of business operations. As a result, firms must develop strategic flexibility and use resources effectively to respond proactively to such changes (Baker & Nelson 2005; Teece, 2018). Relying on existing strategies alone is often not enough to sustain firm performance. Firms need to identify mechanisms that turn adaptive actions and resource use into positive performance outcomes.

Service firms are particularly sensitive to environmental changes because they primarily deliver intangible value and maintain direct delivery interactions, which are closely linked to organizational performance (Ryu, 2024). In service industries, firm performance depends less on the accumulation of physical assets and more on how firms mobilize intangible resources such as human capital, networks, and knowledge. Consequently, the ability to interpret evolving consumer demands and emerging social trends, and to transform them into actionable strategies, has become a critical managerial capability for service firms (Park et al., 2014). The rapid diffusion of digital technologies and the increasing segmentation of consumer demand have further intensified these challenges (Kim et al., 2024). Therefore, understanding how resource utilization and strategic adjustments contribute to business performance has become an important research issue in service industries.

Because service firms depend heavily on continuous customer interaction, intangible value delivery, and service-process coordination, strategic adaptation in service systems has become increasingly important in digitally connected business environments. From the perspective of logistics and service science, organizational responsiveness and operational reconfiguration are critical mechanisms enabling service firms to maintain performance under environmental uncertainty.

In addition to firm-level importance, the macroeconomic significance of the service sector has also continued to expand. In South Korea, for example, official statistics reported by the Ministry of SMEs and Startups (MSS, 2025) indicate that the service sector accounted for more than 60% of national gross domestic product and approximately 70% of total employment as of 2023. This trend suggests that understanding the mechanisms underlying competitiveness and performance in service firms is important not only from an academic perspective but also from an industrial and policy standpoint.

Despite this growing importance, theoretical and empirical research explaining the performance formation process of service firms remains relatively limited. The relatively low barriers to entry and flexible business structures in service industries tend to intensify competition and increase the instability of firm survival (Ko & Kim, 2012). This challenge is particularly pronounced for newly established firms operating under severe resource constraints and high market uncertainty. Nevertheless, much of the existing literature has focused on manufacturing-oriented resource-based perspectives or general performance determinants. Consequently, research examining the structural mechanisms linking resource utilization and strategic adjustment to firm performance in service firms remains insufficient.

In this context, two concepts—bricolage and pivoting—have attracted increasing attention in entrepreneurship research. Bricolage refers to the process of recombining available resources to create new value under conditions of resource constraints, whereas pivoting represents a strategic adjustment in which firms modify elements of their business model in response to market feedback and learning (Baker & Nelson, 2005; Ries, 2011). From this perspective, bricolage can be understood as a resource utilization activity that mobilizes available resources for practical execution, while pivoting represents a strategic adaptation process that realigns business direction based on the outcomes of such actions and market responses (Senyard et al., 2014).

Despite growing interest in bricolage and pivoting, little empirical research has examined pivoting as a mechanism linking bricolage activities to firm performance, particularly in service contexts characterized by high uncertainty and resource constraints. This gap highlights the need for empirical

research that integrates these two concepts to better explain how firms translate resource-utilization activities into performance outcomes.

This study builds on this perspective by empirically examining service firms. It explores the structural relationships among bricolage, pivoting, and business performance. Specifically, the study asks whether bricolage serves as a precursor to pivoting. It also investigates whether pivoting mediates the relationship between bricolage and business performance. By clarifying how resource recombination and strategic adjustment influence outcomes, this study aims to provide insights into how performance is formed in uncertain environments.

This study contributes to the entrepreneurship literature by identifying pivoting as a strategic mechanism through which entrepreneurial bricolage translates resource recombination into business performance.

2. Literature Review

2.1 Service Firms

Service firms create intangible value through customer interactions, setting themselves apart from manufacturing firms that primarily produce tangible goods (Seol, 2024). The Korean Standard Industrial Classification defines the service sector as encompassing a wide range of industries, including information and communication services, education, finance, healthcare, hospitality, and food services. These industries have steadily increased their economic importance, reflecting the growing contribution of service activities to national economies (Kwak & Lee, 2021).

Prior research has identified several key characteristics that differentiate service firms from manufacturing firms, including intangibility, simultaneity, inseparability, and variability. Services are typically produced and consumed simultaneously, and customer interaction plays a central role in value creation. As a result, organizational responsiveness and operational flexibility become critical managerial capabilities for service firms (Ryu, 2024; Park et al., 2014). Due to these characteristics, the performance of service firms tends to be influenced by non-structural factors such as customer relationships, service quality, and the flexibility of organizational operations rather than by the accumulation of physical assets alone (Seo, 2017).

Despite these distinctive characteristics, a significant portion of existing research has applied analytical frameworks developed primarily for manufacturing firms, which may not fully capture the structural and operational contexts of service firms (MMS, 2025; Kwak & Lee, 2021). Innovation and development activities in service firms often focus on improving service delivery processes, enhancing operational efficiency, and strengthening customer experience. Nevertheless, empirical studies that systematically explain these processes remain relatively limited (Park et al., 2014; Seol, 2024).

Although service industries are often characterized by relatively low barriers to entry and high operational flexibility, prior research suggests that ease of market entry does not necessarily guarantee sustainable growth for service firms (Kim, 2022). Particularly for newly established firms operating under resource constraints and environmental uncertainty, the ability to adopt effective strategic responses becomes critical for achieving sustainable performance.

Taken together, despite the growing economic significance of service firms, the mechanisms underlying the formation of their performance remain insufficiently explored due to the dominance of manufacturing-oriented research perspectives. In particular, empirical studies examining how service firms respond strategically to environmental uncertainty and resource constraints remain limited.

2.2 Entrepreneurial Bricolage

Bricolage has been widely discussed as a strategic behavior in which actors creatively utilize limited resources to generate new value. The concept was originally introduced to describe a practice of

improvisational problem-solving in which individuals use available materials and tools within a given environment (Lévi-Strauss, 1966). In management and entrepreneurship, bricolage specifically refers to how entrepreneurs tackle challenges and seize opportunities by recombining readily available resources under resource constraints (Baker & Nelson, 2005).

This perspective contrasts with the traditional assumptions of the resource-based view, which holds that competitive advantage arises from possessing rare and inimitable resources. In contrast, the concept of bricolage highlights how resource scarcity itself can serve as a starting point for creative recombination and innovation (Desa, 2012).

Previous research categorizes bricolage by how resources are used and the context. For example, Baker and Nelson identified parallel bricolage, the simultaneous use of multiple resources, and selective bricolage, the intensive use of specific resources. Later studies expanded this by focusing on the types of resources, distinguishing material bricolage, which recombines tangible resources, from bricolage that reinterprets organizational norms, beliefs, and structures.

These classifications suggest that bricolage should not be understood as a single action or isolated response, but rather as a multidimensional strategic practice that organizations selectively employ depending on resource constraints and environmental conditions (Izunobi et al. 2025). In this sense, bricolage is a dynamic strategic concept that varies depending on the source and type of resources involved and may influence broader processes such as market formation and institutional change (Yu et al., 2019).

Research on the components of bricolage has focused on the processes through which organizations recognize, select, and transform available resources into practical action. While early studies emphasized interpretation, attention, and improvisation as core elements of bricolage behavior, subsequent research expanded this perspective by viewing bricolage as a multidimensional construct encompassing resource recombination, a problem-solving orientation, and network utilization (Lee & Park, 2022).

The recombination of network-based resources has been identified as a critical element of bricolage activities. Through networks, organizations can access complementary resources and mobilize external knowledge. This enhances their ability to respond flexibly to environmental challenges. Accordingly, bricolage has been interpreted not merely as a technique for resource utilization but as a behavioral concept reflecting an organization's strategic flexibility and execution capability (Han & Xie, 2023; Du, 2024).

A growing body of research has demonstrated that bricolage can contribute to innovation and performance outcomes in resource-constrained environments. Bricolage has been understood as an execution-oriented approach that promotes incremental innovation and creative problem solving. Improvisational responses have also been discussed as factors that enhance speed and flexibility in new product development processes. Furthermore, in contexts of organizational change, bricolage can serve as a strategic mechanism enabling firms to adapt to environmental shifts. In technologically dynamic environments, bricolage may serve as a key mode of execution, supporting new product development and organizational adaptation. Empirical studies in various contexts have also reported mediating and moderating effects of bricolage in explaining the relationships between resource constraints, innovation, and firm performance (Park et al., 2020; Praj et al., 2023).

Taken together, bricolage can be understood as a strategy-oriented approach in which organizations reinterpret and recombine available resources in order to solve problems and create opportunities (Baker & Nelson, 2005; Senyard et al., 2014). Rather than immediately altering the overall strategy, bricolage emphasizes accumulating practical actions using limited resources. Through repeated processes of resource recombination and problem-solving, organizations accumulate experience and learning in execution, which may subsequently influence strategic decision-making.

In this study, bricolage is defined as a resource orchestration activity guided by an entrepreneurial

mindset to overcome resource constraints. Among the various dimensions proposed in prior research, this study focuses on resource recombination, problem-solving orientation, and network utilization as the key subdimensions of bricolage, considering their relevance to the execution context of service firms and their suitability for empirical analysis.

2.3 Pivoting

Pivoting has been widely discussed as a strategic response in which firms modify or redirect their existing strategies and business orientations to achieve market fit amid uncertainty. The concept was formalized in the lean startup framework, where pivoting is defined as a structured, strategic change designed to test new hypotheses about products, strategies, or growth engines (Ries, 2011). In this perspective, pivoting is not simply a change in direction but a learning-based strategic process. Through repeated cycles of experimentation, feedback, and adjustment, firms systematically test assumptions, recognize the limitations of existing strategies, and refine them until they achieve a better market fit.

Pivoting is conceptually distinct from bricolage in terms of its strategic focus. While bricolage emphasizes the recombination and utilization of available resources to expand execution under resource constraints, pivoting represents a strategic transition stage in which firms reassess accumulated execution outcomes and market responses and subsequently revise core assumptions or strategic elements of their business models. In other words, pivoting involves redefining the direction and scope of strategy and includes structural decision-making processes through which organizations depart from existing paths and adopt new strategic hypotheses (Ries, 2011).

Subsequent research has expanded the concept of pivoting by emphasizing its dynamic and learning-oriented nature. Pivoting has been described as an adaptive process in which firms continuously adjust their strategies through iterative experimentation and hypothesis testing, informed by market feedback. Rather than a single strategic decision, pivoting represents a cyclical process of strategic adjustment and transformation through which organizations redesign their strategies when existing approaches fail to achieve desired outcomes (Shepherd & Gruber, 2021). From this perspective, pivoting reflects a learning-driven mechanism that enables organizations to reconfigure their strategies in response to changing environmental conditions.

Prior studies have also classified pivoting into various types based on the strategic elements that can change. For example, the lean startup literature identifies multiple forms of pivoting, including zoom-in pivot, zoom-out pivot, customer segment pivot, customer need pivot, platform pivot, business architecture pivot, value capture pivot, growth engine pivot, channel pivot, and technology pivot (Ries, 2011). These classifications explain how firms modify different aspects of their strategies in response to market feedback. Other studies have categorized pivoting into broader strategic domains, such as product, market, and organizational strategy, highlighting that pivoting may involve reallocation of strategic resources and structural adjustments to the overall business model (Bajwa et al., 2017).

The performance implications of pivoting vary depending on how it is executed and the organizational and environmental context in which it occurs. As a form of strategic change, pivoting can drive firm growth by enabling organizations to realign their strategies with market conditions (Jia et al., 2016). However, excessively frequent or radical strategic shifts may also negatively affect organizational performance. Previous research suggests that the outcomes of pivoting depend on factors such as strategic consistency, organizational capabilities, and environmental fit during the business model transformation process (Bandera & Thomas, 2022; Neely, 2008). These findings indicate that pivoting should not be understood simply as strategic change, but rather as a strategic action whose effectiveness depends on appropriateness, timing, and alignment with organizational capabilities.

Taken together, pivoting can be understood as an adaptive process through which firms reorganize their strategies through learning and experimentation under uncertain environments. Unlike short-term resource utilization or operational problem-solving activities, pivoting represents a strategic-level transition in which firms revise key strategic assumptions based on accumulated execution outcomes

and market feedback. In this sense, the execution experiences and resource recombination capabilities accumulated through bricolage activities may provide the foundation for re-evaluating strategic directions. This perspective suggests that bricolage activities may serve as antecedents facilitating pivoting.

In this study, pivoting is defined as a process through which service firms readjust key strategic elements in response to environmental changes and internal learning. Based on prior research, this study categorizes pivoting into four dimensions that are particularly relevant to the operational context of service firms: customer pivoting, product/service pivoting, revenue model pivoting, and internal process pivoting.

2.4 Business Performance

Business performance is generally understood as a comprehensive concept for evaluating a firm's strategic outcomes. Prior research has emphasized that both financial and non-financial performance indicators are important for assessing firm performance. Financial indicators such as sales, profitability, and growth rates provide objective measures of organizational outcomes, while non-financial indicators—including customer satisfaction, service quality, and internal capabilities—are often viewed as important predictors of long-term organizational success (Kaplan & Norton, 2005). As a result, business performance is now viewed as a multidimensional construct that combines both financial and non-financial aspects.

However, studies focusing on small and medium-sized enterprises (SMEs) or startup firms often face structural limitations in obtaining objective financial data. As a result, many researchers have relied on subjective performance measures based on managerial perceptions as a practical alternative. In particular, for early-stage firms, managers' perceptions of revenue growth, improvements in profitability structures, cost efficiency, and customer responses have been shown to reflect firms' actual performance conditions with reasonable accuracy (Abu-Rumman et al., 2021).

In the context of service firms, the limitations of relying solely on financial indicators become even more apparent. Because service firms depend heavily on intangible assets such as human resources, service quality, and customer experience, firm performance cannot be fully explained by short-term financial outcomes alone. Accordingly, recent studies have increasingly suggested that performance in service firms and SMEs should be measured using integrated approaches that combine financial and non-financial dimensions, often relying on managerial perceptions to capture a broader range of performance outcomes (Jung et al., 2013).

Taken together, business performance can be better understood as an integrated construct encompassing both financial and non-financial outcomes, particularly in the context of startups and service firms. Consistent with this perspective, the present study adopts a multidimensional approach to business performance that incorporates both financial and non-financial elements.

3. Hypothesis Development

3.1 Bricolage and Pivoting

Entrepreneurial bricolage refers to the strategic behavior by which firms creatively recombine available resources to address problems and exploit opportunities under resource constraints (Baker & Nelson, 2011). In environments characterized by limited resources and high uncertainty, bricolage enables firms to experiment with alternative solutions and respond flexibly to emerging challenges.

Prior research suggests that bricolage facilitates both exploration and exploitation activities by encouraging firms to utilize available resources in novel ways (Turturea et al., 2014). Through experimentation and resource recombination, firms may gain new strategic insights and opportunities for business model adjustments. Notably, in service firms, bricolage has been identified as an important capability, enabling organizations to develop new services and implement business innovations even

when faced with resource limitations (Witell et al., 2016).

Bricolage often appears in the early stages of strategic execution, where firms repeatedly experiment with available resources and accumulate learning through iterative action. These execution experiences may eventually lead to strategic reorientation, commonly referred to as pivoting (Senyard et al., 2014). Previous research also suggests that bricolage strengthens firms' strategic judgment and responsiveness to market signals, thereby facilitating strategic adjustments when necessary (Shepherd & Gruber, 2021).

Based on these arguments, bricolage activities are expected to increase the likelihood that firms pivot.

H1. Entrepreneurial bricolage positively influences pivoting in service firms.

Because bricolage is conceptualized as a multidimensional construct, the following hypotheses are proposed for its key components.

H1a. Resource recombination positively influences pivoting.

H1b. Problem-solving orientation positively influences pivoting.

H1c. Network utilization positively influences pivoting.

3.2 Bricolage and Business Performance

Bricolage has also been associated with improved firm performance, particularly in resource-constrained environments. By creatively recombining available resources, firms can enhance their strategic flexibility and problem-solving capability, which may ultimately contribute to performance outcomes (Baker & Nelson, 2005).

Previous studies suggest that bricolage promotes both exploration and exploitation, thereby enhancing innovation and organizational performance (Turturea et al., 2014). In service firms, bricolage has been shown to contribute to service development, customer responsiveness, and internal innovation activities (Witell et al., 2016).

Because service firms rely heavily on intangible resources such as human capital, networks, and knowledge, the ability to creatively recombine them is likely to directly impact business performance.

H2. Entrepreneurial bricolage positively influences business performance in service firms.

3.3 Pivoting and Business Performance

Pivoting refers to a strategic adjustment process where firms modify core aspects of their business models in response to market feedback and environmental changes (Ries, 2011). Through iterative experimentation and learning, pivoting helps firms refine their value propositions and better adapt to market conditions.

Although pivoting may involve short-term uncertainty, prior research suggests that strategic adjustments can enhance organizational adaptability and long-term performance. Previous studies have also shown that pivoting strengthens firms' ability to respond to market dynamics and increases the likelihood of achieving sustainable growth (Shepherd & Gruber, 2021). In addition, appropriate levels of strategic adjustment may positively influence firm performance (Bandera & Thomas, 2022).

Because pivoting enables firms to realign their strategies with evolving market conditions, it is expected to improve business performance.

H3. Pivoting positively influences business performance in service firms.

3.4 Mediating Role of Pivoting

Bricolage enables firms to experiment with available resources and accumulate execution experience, which may subsequently trigger strategic adjustments, such as a pivot. Through these strategic adjustments, firms can realign their strategies with market conditions and improve organizational

outcomes.

Prior studies suggest that bricolage activities provide the foundation for firms to recognize strategic limitations and explore alternative business directions (Senyard et al., 2014). Pivoting, in turn, represents a strategic response whereby firms restructure their business models in response to learning and market feedback (Ries, 2011). Accordingly, pivoting may function as an intermediary mechanism linking bricolage activities to business performance.

H4. Pivoting mediates the relationship between entrepreneurial bricolage and business performance.

Pivoting may occur in various strategic domains. Thus, the following hypotheses are offered.

H4a. Customer pivoting mediates the relationship between bricolage and business performance.

H4b. Product/service pivoting mediates the relationship between bricolage and business performance.

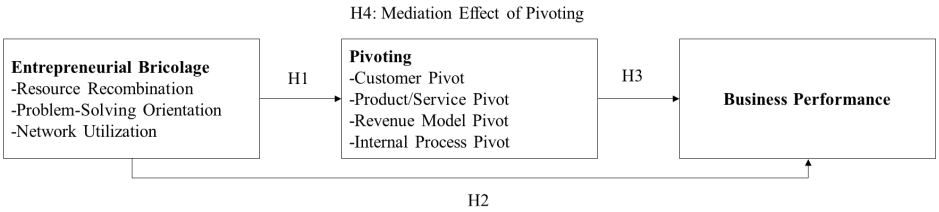
H4c. Revenue model pivoting mediates the relationship between bricolage and business performance.

H4d. Internal process pivoting mediates the relationship between bricolage and business performance.

3.5 Research Model

Based on the hypotheses developed in the previous section, this study proposes a research model to examine the relationships among entrepreneurial bricolage, pivoting, and business performance in service firms. Specifically, the model investigates the effects of bricolage on pivoting and on business performance, as well as the effects of pivoting on business performance. In addition, the mediating role of pivoting in the relationship between bricolage and business performance is examined.

As illustrated in Figure 1, entrepreneurial bricolage is specified as the independent variable, pivoting as the mediating variable, and business performance as the dependent variable. Pivoting is further categorized into four subdimensions—customer pivoting, product/service pivoting, revenue model pivoting, and internal process pivoting—to capture the differentiated pathways through which bricolage may influence business performance.



H1: Bricolage → Pivoting
H2: Bricolage → Business performance
H3: Pivoting → Business performance
H4: Pivoting mediates the relationship between bricolage and business performance

Fig. 1: Research Model

4. Research Method

This study employed a quantitative survey-based research design to examine the impact of entrepreneurial bricolage on business performance in service firms and to test the mediating role of pivoting. The target population consisted of early-stage service firms established within the past seven years. Data were collected from founders, CEOs, or managers with substantial decision-making authority over strategic execution.

The survey was conducted between July 1 and August 20, 2025, using both online and offline questionnaires. Notably, the sample was not restricted to a specific geographic region, as it targeted

service firms across diverse industries. In total, 235 questionnaires were returned. Of these, 33 responses were excluded due to incomplete answers, missing key variables, or patterned responses indicating inattentive answering. As a result, 202 valid responses were retained for the final analysis. To facilitate further analysis, service firms were subsequently classified into three categories based on value delivery mechanisms: (1) knowledge- and information-based services, such as consulting or IT support; (2) experience- and convenience-oriented services, like hospitality or personal care; and (3) efficiency- and connection-based services, for example, logistics or communications.

Measurement items were developed from validated scales used in prior studies. Entrepreneurial bricolage was operationalized through three dimensions: resource recombination, problem-solving orientation, and network utilization. Pivoting was measured using four types: customer pivot, product/service pivot, revenue model pivot, and internal process pivot. The measurement items for pivoting were adapted from prior conceptual studies and refined to fit the context of service firms. Business performance was measured as an integrated construct reflecting managers' subjective assessments of firm outcomes, including sales growth, profitability improvement, cost efficiency, customer satisfaction, service quality, and organizational flexibility and innovation capability. Following prior entrepreneurship research, subjective performance measures were used because objective financial data are often difficult to obtain from small and early-stage firms. The operational definitions, measurement items, and sources are summarized in Table 1. All items were measured using a five-point Likert scale. During exploratory factor analysis, one item from the revenue model pivot scale was removed due to insufficient factor loading.

To minimize common method bias, respondents were assured of anonymity and confidentiality, and the questionnaire items were arranged to reduce potential response bias.

The collected data were analyzed using SPSS 29.0. Descriptive statistics were first conducted to examine the characteristics of the sample. Exploratory factor analysis and Cronbach's alpha were used to assess the validity and reliability of the measurement scales. Correlation analysis was then conducted to examine the relationships among variables. To test the hypothesized relationships among bricolage, pivoting, and business performance, multiple regression analyses were performed. The indirect effects were considered significant when the 95% bootstrap confidence interval did not include zero, consistent with the mediation-testing procedures proposed by Preacher and Hayes (2008) and Hayes (2013). Firm age was included as a control variable in the analysis.

Table 1: Operational Definitions and Measurement Items

Construct	Dimension	Operational Definition	Items	Sources
Entrepreneurial Bricolage	Resource Recombination	The firm's tendency to recombine existing resources in new ways to solve problems under resource constraints	5	(Baker & Nelson, 2005; Lee & Park, 2022)
	Problem-Solving Orientation	The strategic orientation to address problems through action, despite limited resources	5	(Baker & Nelson, 2005; Park et al., 2020)
	Network Utilization	The extent to which firms utilize external human and social resources in strategic execution	5	(Lee & Park, 2022; Park et al., 2020)
Pivoting	Customer Pivot	Strategic adjustment involving a change in target customers or market segments	5	(Ries, 2011; Shepherd & Gruber, 2021)
	Product/Service Pivot	Strategic modification of core products or services	5	(Ries, 2011; Bajwa et al., 2017)
	Revenue Model Pivot	Strategic adjustment of revenue generation mechanisms or pricing models	4	(Ries, 2011; Bandera & Thomas, 2022)
	Internal Process Pivot	Strategic changes in internal operations and resource allocation	5	(Shepherd & Gruber, 2021; Neely, 2008)
Business Performance	–	Managers' subjective evaluation of firm performance, including sales growth,	4	(Kaplan & Norton, 2005; Abu-Rumman

		profitability improvement, cost efficiency, customer satisfaction, and service quality		et al., 2021; Jung et al., 2013)

5. Results

5.1 Sample Characteristics

A survey was conducted to examine the relationships among entrepreneurial bricolage, pivoting, and business performance in service firms. After excluding incomplete and inattentive responses, a total of 202 valid questionnaires were retained for the final analysis.

Regarding gender distribution, 145 respondents (71.8%) were male, and 57 respondents (28.2%) were female. In terms of age, the majority of respondents were in their 30s (36.6%) and 40s (35.6%), followed by those in their 20s (17.3%), 50s (6.9%), and over 60 (3.5%).

With respect to firm age, firms operating between five and seven years accounted for the largest proportion (58.4%), followed by firms with one to three years of operation (20.8%), firms younger than one year (10.4%), and firms operating between three and five years (10.4%).

In terms of service type, knowledge- and information-based services accounted for 41.1% of the sample, experience- and convenience-oriented services for 41.6%, and efficiency- and connection-based services for 17.3%.

5.2 Reliability and Validity Analysis

Reliability and validity tests were conducted to assess the measurement scales. Cronbach's alpha values ranged from .862 to .875 for the dimensions of entrepreneurial bricolage, from .901 to .924 for the dimensions of pivoting, and .888 for business performance, indicating high internal consistency.

Exploratory factor analysis (EFA) examined the construct validity of the measurement items. Results showed that entrepreneurial bricolage consisted of three factors—included three factors: resource recombination, problem-solving orientation, and network utilization. Factor loadings ranged from .709 to .833. The Kaiser–Meyer–Olkin (KMO) value was .958. Bartlett's test of sphericity was significant ($\chi^2 = 4519.991$, $df = 105$, $p < .001$), indicating suitability for factor analysis.

Pivoting was extracted as four factors—customer pivot, product/service pivot, revenue model pivot, and internal process pivot—with factor loadings ranging from .635 to .830. The KMO value was .945, and Bartlett's test of sphericity was significant ($\chi^2 = 3367.528$, $df = 171$, $p < .001$), confirming the adequacy of the factor structure.

Business performance was extracted as a single factor with factor loadings ranging from .813 to .889. The KMO value was .814, and Bartlett's test of sphericity was significant ($\chi^2 = 460.586$, $df = 6$, $p < .001$), indicating satisfactory construct validity.

5.3 Descriptive Statistics and Correlation Analysis

Descriptive statistics were conducted to examine the distributional characteristics of the main variables used in this study. As shown in Table 2, the mean values of the variables ranged from 3.60 to 3.86, indicating that the respondents generally reported moderate to relatively high levels of entrepreneurial bricolage, pivoting activities, and business performance. The standard deviations ranged from .83 to 1.31, suggesting a reasonable degree of variability in the responses.

Normality of the variables was assessed using skewness and kurtosis statistics. The skewness values ranged from -0.936 to -0.406, and the kurtosis values ranged from -0.691 to 0.492. These values fall within the commonly accepted thresholds for normality ($|skewness| < 2$, $|kurtosis| < 7$), indicating that the assumption of normality was satisfied for subsequent regression and mediation analyses.

Correlation analysis examined relationships among the variables. Table 2 shows all variables had significant positive correlations ($p < .01$). Correlation coefficients ranged from .302 to .741. The highest correlation was between customer pivot and product/service pivot ($r = .741$). None exceeded the

threshold of .80, suggesting multicollinearity is unlikely to be a concern.

Overall, the correlations among entrepreneurial bricolage, pivoting, and business performance were consistent with the theoretically expected directions, providing preliminary support for the hypothesized relationships.

Table 2: Descriptive Statistics and Correlations

Variable	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Resource Recombination	3.81	1.26	1							
(2) Problem-Solving Orientation	3.86	1.11	.726**	1						
(3) Network Utilization	3.68	1.31	.724**	.732**	1					
(4) Customer Pivot	3.84	.83	.483**	.506**	.489**	1				
(5) Product/Service Pivot	3.60	.86	.441**	.483**	.503**	.741**	1			
(6) Revenue Model Pivot	3.72	.91	.302**	.349**	.313**	.628**	.707**	1		
(7) Internal Process Pivot	3.64	.92	.432**	.493**	.517**	.624**	.629**	.720**	1	
(8) Business Performance	3.71	.92	.519**	.517**	.560**	.669**	.625**	.619**	.623**	1

*$p < .05$, **$p < .01$, ***$p < .001$*

5.5 Hypothesis Testing

(1) Effects of Entrepreneurial Bricolage on Pivoting (H1)

Multiple regression analyses were conducted to examine the effects of entrepreneurial bricolage on the four types of pivoting. The results are presented in Table 3.

The regression models for all four pivoting types were statistically significant. The problem-solving orientation showed significant positive effects on customer, product/service, and revenue model pivots. Network utilization had a significant positive effect on both product/service and internal process pivots. In contrast, resource recombination did not have a significant effect on any of the pivoting types.

These results suggest that certain dimensions of entrepreneurial bricolage selectively facilitate different forms of pivoting.

Table 3: Regression Results of the Effects of Bricolage on Pivoting

Variables	Customer Pivot (β)	Product/Service Pivot (β)	Revenue Model Pivot (β)	Internal Process Pivot (β)
Resource Recombination	.133	-.007	.014	.024
Problem-Solving Orientation	.261*	.212*	.279*	.190
Network Utilization	.161	.333**	.068	.338**
R^2	.276	.267	.123	.280
Adj. R^2	.265	.250	.110	.270
F	25.21***	24.05***	9.31***	25.78***

**Note: Standardized coefficients (β) are reported.*
*$p < .05$, **$p < .01$, ***$p < .001$*

(2) Effects of Entrepreneurial Bricolage on Business Performance (H2)

A multiple regression analysis was conducted to examine the effects of the dimensions of entrepreneurial bricolage on business performance. As shown in Table 4, the regression model was statistically significant ($F = 32.07$, $p < .001$) and explained 32.7% of the variance in business performance ($R^2 = .327$).

Among the independent variables, network utilization showed a significant positive effect on business performance, whereas resource recombination and problem-solving orientation were not statistically significant. The VIF values ranged from 3.94 to 4.09, indicating that multicollinearity was not a serious concern.

These results suggest that leveraging external networks is key to improving service firm

performance.

Table 4: Regression Results: Effects of Entrepreneurial Bricolage on Business Performance

Variables	B	SE	β	t	p	VIF
Resource Recombination	.095	.084	.130	1.13	.259	3.94
Problem-Solving Orientation	.085	.097	.103	.87	.383	4.09
Network Utilization	.258	.082	.366**	3.14	.002	4.01
R^2	.327					
Adj. R^2	.316					
F	32.07***					

(3) Effects of Pivoting on Business Performance (H3)

A multiple regression analysis was conducted to examine the effects of pivoting on business performance. As shown in Table 5, the regression model was statistically significant ($F = 54.47$, $p < .001$) and explained 52.5% of the variance in business performance ($R^2 = .525$).

Among the pivoting dimensions, customer pivot ($\beta = .362$, $p < .01$) and internal process pivot ($\beta = .245$, $p < .01$) had significant positive effects on business performance, whereas product/service pivot and revenue model pivot were not statistically significant. The variance inflation factor (VIF) values ranged from 2.60 to 3.06, indicating that multicollinearity was not a serious concern.

These results suggest that strategic adjustments in customer targeting and internal operational processes are more directly associated with performance improvements in service firms than changes in product/service configuration or revenue models.

Table 5: Regression Results: Effects of Pivoting on Business Performance

Variables	B	SE	β	t	p	VIF
Customer Pivot	.403	.090	.362**	4.48	.000	2.72
Product/Service Pivot	.110	.091	.103	1.20	.230	3.06
Revenue Model Pivot	.106	.084	.104	1.25	.212	2.89
Internal Process Pivot	.244	.078	.245**	3.10	.002	2.60
R^2	.525					
Adj. R^2	.515					
F	54.47***					

*$p < .05$, **$p < .01$, ***$p < .001$

(4) Mediating Effects of Pivoting (H4)

To examine the mediating role of pivoting in the relationship between entrepreneurial bricolage and business performance, mediation analyses were conducted using the PROCESS macro (Model 4) with 5,000 bootstrap samples. The indirect effects were considered significant when the 95% bootstrap confidence interval did not include zero (Hayes, 2013).

As shown in Table 6, all four forms of pivoting demonstrated statistically significant indirect effects linking bricolage dimensions to business performance through bootstrapped mediation analysis. Importantly, these indirect effects remained significant even when some individual direct regression paths were not statistically significant in the primary regression models. This finding suggests that certain pivoting mechanisms may operate as indirect strategic adaptation pathways rather than as independently dominant predictors of performance.

The findings further indicate that significant mediation effects may emerge even when direct effects between specific pivoting dimensions and business performance are statistically weak. This pattern is consistent with contemporary mediation theory, which recognizes that indirect effects can remain meaningful despite non-significant direct paths when intermediary mechanisms cumulatively transmit influence through strategic adaptation processes.

Comparing the magnitude of indirect effects across pivoting types, customer pivoting exhibited the

strongest mediation effect, followed by internal process pivoting and product/service pivoting, while revenue model pivoting showed relatively weaker indirect effects. Moreover, the direct effects remained significant after controlling for the mediators, indicating that pivoting partially mediates the relationship between bricolage and business performance.

Overall, the results suggest that entrepreneurial bricolage contributes to firm performance not only through direct effects but also indirectly by facilitating strategic pivoting.

Table 6: Mediation Effects of Pivoting between Bricolage and Business Performance

Pivoting Type	Bricolage Dimension	a	b	Indirect Effect (a×b)	BootLLCI	BootULCI
Customer Pivot	Resource Recombination	.317	.607	.193	.127	.264
	Problem-Solving Orientation	.377	.610	.230	.152	.320
	Network Utilization	.310	.578	.179	.120	.247
Product/Service Pivot	Resource Recombination	.304	.524	.159	.099	.228
	Problem-Solving Orientation	.376	.522	.196	.127	.276
	Network Utilization	.334	.489	.163	.104	.233
Revenue Model Pivot	Resource Recombination	.232	.552	.128	.068	.202
	Problem-Solving Orientation	.305	.544	.166	.097	.247
	Network Utilization	.238	.534	.127	.072	.190
Internal Process Pivot	Resource Recombination	.338	.486	.164	.103	.236
	Problem-Solving Orientation	.409	.485	.198	.124	.274
	Network Utilization	.366	.453	.166	.102	.234

Note.
Indirect effects were estimated using bootstrapping with 5,000 resamples.
Confidence intervals are reported at the 95% level.
An indirect effect is significant when the confidence interval does not include zero.

Table 7 summarizes the results of the hypothesis testing. The results provide partial support for H1, H2, and H3, while H4 is supported, confirming the mediating role of pivoting in the relationship between entrepreneurial bricolage and business performance.

Table 7: Summary of Hypothesis Testing

Hypothesis	Description	Result
H1	Entrepreneurial bricolage positively influences pivoting in service firms.	Partially supported
H2	Entrepreneurial bricolage positively influences business performance in service firms.	Partially supported
H3	Pivoting positively influences business performance in service firms.	Partially supported
H4	Pivoting mediates the relationship between entrepreneurial bricolage and business performance.	Supported

6. Discussion & Conclusion

This study examined how entrepreneurial bricolage contributes to business performance in service firms and investigated the mediating role of pivoting in this relationship. Drawing on empirical data collected from early-stage service firms, the results provide evidence that pivoting functions as an important mechanism linking bricolage activities to firm performance. Specifically, the findings suggest that entrepreneurial bricolage facilitates strategic pivoting, which, in turn, enhances business performance in uncertain and resource-constrained environments.

6.1 Key Findings

Several important findings emerged from the empirical analysis. First, certain dimensions of entrepreneurial bricolage were found to influence pivoting behavior. In particular, a problem-solving

orientation significantly influenced customer, product/service, and revenue model pivoting, while network utilization significantly influenced product/service and internal process pivoting. In contrast, resource recombination did not demonstrate a statistically significant effect on pivoting. These results suggest that the behavioral and relational aspects of bricolage play a more important role in triggering strategic adjustments than resource recombination alone.

Second, the analysis revealed that network utilization within bricolage has a direct positive effect on business performance, whereas resource recombination and problem-solving orientation were not statistically significant predictors of performance. This finding highlights the importance of external networks and social resources in enhancing firm outcomes, particularly in service contexts where collaboration, knowledge exchange, and relational capabilities are essential for value creation.

Third, the results indicate that pivoting plays an important role in explaining business performance. Among the four pivoting types examined, customer pivoting and internal process pivoting showed significant positive effects on business performance. In contrast, product/service pivoting and revenue model pivoting did not show statistically significant direct effects. These findings suggest that strategic adjustments related to customer alignment and operational processes may have a more immediate impact on firm outcomes in service firms than changes in products or revenue models.

Finally, the mediation analysis confirmed that pivoting serves as a significant mediator between entrepreneurial bricolage and business performance. All four pivoting types demonstrated significant indirect effects through bootstrapping analysis. However, the magnitude of the mediation effects differed across pivoting types. Customer pivoting showed the strongest mediating effect, followed by internal process pivoting and product/service pivoting, while revenue model pivoting exhibited relatively weaker indirect effects. These findings indicate that bricolage activities contribute to firm performance not only directly but also indirectly by facilitating strategic adaptation through pivoting.

6.2 Theoretical Contributions

This study contributes to the entrepreneurship and strategic management literature in several ways.

First, this research extends the entrepreneurial bricolage literature by identifying pivoting as a key mechanism linking bricolage activities to firm performance. Previous studies have largely focused on the direct effects of bricolage on innovation or firm outcomes. However, the processes through which bricolage translates into performance improvements have received relatively limited empirical attention. By demonstrating that pivoting mediates the relationship between bricolage and business performance, this study provides a process-based explanation of how resource-constrained experimentation leads to strategic adaptation and improved firm outcomes.

Second, this study contributes to the emerging literature on pivoting in entrepreneurship. While pivoting has been widely discussed in the lean startup framework as a strategic response to market feedback, empirical research examining its role in organizational performance remains limited. The findings of this study provide empirical evidence that pivoting functions as a strategic adaptation mechanism through which firms realign their strategies with market conditions. Moreover, the results highlight that different types of pivoting have varying performance implications.

Third, the findings contribute to the literature on service entrepreneurship and service-system management by demonstrating that strategic adjustments to customer alignment and internal operational processes are particularly important in service firms. These findings extend related discussions concerning service-process coordination, organizational responsiveness, and operational adaptation in intangible service environments. Because service businesses rely heavily on customer interaction, service experience design, and operational flexibility, strategic changes targeting customer segments and internal operational processes may have a more direct impact on firm performance than product or revenue model adjustments.

Overall, this study advances the understanding of the dynamic relationship between resource improvisation, strategic adaptation, and firm performance, showing that entrepreneurial bricolage can enhance firm outcomes through pivoting as a strategic adjustment mechanism.

6.3 Practical Implications

The findings of this study offer several practical implications for entrepreneurs and managers of service firms.

First, the results suggest that entrepreneurs operating under resource constraints should not rely solely on internal resource recombination. Instead, actively leveraging external networks and relationships can play a critical role in improving business performance. External collaborators, advisors, and professional networks can provide valuable information and resources that support strategic adaptation.

Second, the findings indicate that pivoting should be understood as a strategic learning process rather than merely a reactive change in direction. Entrepreneurs should continuously analyze market feedback and operational outcomes in order to determine when strategic adjustments are necessary.

Third, the results highlight the importance of customer-oriented and operational pivoting. Adjusting target customers, refining market positioning, and improving internal operational processes appear to have stronger performance implications than modifying product features or revenue models alone. Entrepreneurs must take decisive action by prioritizing strategic adjustments that align with customers and improve organizational efficiency to achieve superior outcomes.

6.4 Limitations and Future Research

Despite its contributions, this study has several limitations that should be acknowledged.

First, the study relies on cross-sectional survey data, which limits the ability to establish causal relationships among the variables. Future research may employ longitudinal designs to examine how bricolage, pivoting, and performance evolve over time.

Second, the study focuses exclusively on service firms, which may limit the generalizability of its findings to other industries, such as manufacturing or technology. Future research may examine whether similar mechanisms operate in different industrial contexts.

Third, this study measured business performance using subjective managerial assessments rather than objective financial indicators. While subjective measures are common and well-suited to small or early-stage firms, future studies should clarify how incorporating objective performance data—such as revenue, profit, or growth metrics—could validate and extend these findings.

In addition, because the study relied primarily on self-reported managerial assessments, the findings may be affected by subjective response bias and common method variance despite procedural efforts to minimize these risks through anonymity and questionnaire design.

Furthermore, the study employed a limited set of control variables, focusing primarily on firm age. Other organizational and environmental factors, such as firm size, market turbulence, digital capability, or competitive intensity, may also influence bricolage, pivoting, and performance relationships.

Finally, because the data were collected using a cross-sectional design, causal inferences should be interpreted cautiously. Longitudinal studies would provide stronger evidence regarding the temporal dynamics among bricolage, pivoting, and business performance.

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