

The mediating role of innovation in the impact of entrepreneurial bricolage on SME performance in the tourism sector

Nanik Kustiningsih^{1*}, Wuryan Andayani², Vidia gati³, Kuswandi⁴, Alphasyah Lazuardy Sidarta⁵

¹Accounting Department, STIE Mahardika, Indonesia; nanik@stiemahardhika.ac.id (N.K.).

^{2,5}Accounting Department, Faculty of Economics and Business, Universitas Brawijaya, Indonesia.

^{3,4}Management Department, STIE Mahardika, Indonesia.

Abstract: This study examines the mediating role of innovation in the relationship between entrepreneurial bricolage and the performance of small and medium-sized enterprises (SMEs) in the tourism sector. The research examines how resource-limited SMEs utilize creative problem-solving and resource optimization to enhance their competitive advantage. The study adopts a quantitative approach. Data was collected through surveys and in-depth interviews, data were collected from 46 SMEs in East Java, Indonesia, path analysis reveals that innovation significantly enhances the positive impact of bricolage on SME performance. Path analysis was employed to examine the direct and indirect effects of entrepreneurial bricolage on SME performance, with innovation as the mediating variable. The results demonstrate that entrepreneurial bricolage significantly improves SME performance by fostering innovation, which acts as a crucial mediator. SMEs practicing bricolage are able to optimize limited resources creatively, leading to innovative products, processes, and marketing strategies that enhance competitiveness and performance in the tourism sector. The findings provide practical implications for SME owners and policymakers in resource-constrained environments, offering strategies to leverage creativity and innovation for competitive advantage. The study provides valuable insights for SMEs, policymakers, and researchers. SMEs are encouraged to adopt bricolage as a strategic tool to navigate resource constraints, while policymakers should support innovation by improving resource accessibility and providing training programs. Future research can expand on this study by exploring bricolage practices across different regions and sectors, as well as investigating the long-term impact on SME performance. This research contributes to the limited literature on entrepreneurial bricolage in tourism SMEs, particularly in developing regions such as East Java. It offers new insights into how SMEs can leverage internal capabilities and innovation to achieve sustainable growth and maintain a competitive edge in resource-constrained environments.

Keywords: *Competitive advantage, Entrepreneurial tourism, External bricolage, Innovation, Internal bricolage, Resource constraints, SME's performance, Tourism sector.*

1. Introduction

The tourism sector in East Java has shown a positive growth trend following the severe impact of the COVID-19 pandemic. According to data from the Indonesian Central Bureau of Statistics (*Badan Pusat Statistik*) in 2023, there was a significant increase of 263.11% in the number of international tourists visiting East Java compared to the previous year. Additionally, the contribution of tourism to the Gross Regional Domestic Product (GRDP) reached 5.82%, marking a 13.02% increase from 2022 to 2023 (BPS, 2023). This growth not only indicates the recovery of the tourism sector but also provides a stimulus for Small and Medium Enterprises (SMEs) in the tourism industry to become more creative in utilizing local resources to enhance their competitiveness in the global market (Kustiningsih et al., 2022). Entrepreneurial bricolage, a concept first introduced by Claude Lévi-Strauss in the context of anthropology and later adapted to entrepreneurship and organizational management, refers to the process by which entrepreneurs use limited but available resources to create innovative solutions (Lévi-

Strauss, 1966). Entrepreneurial bricolage is the ability of entrepreneurs to “*make do with what is at hand*” leveraging material resources, knowledge, or social networks (Baker & Nelson, 2005). In the context of tourism, this concept is particularly crucial as the sector often faces challenges such as limited access to capital, lack of infrastructure, and market uncertainty, especially in developing regions like East Java.

A practical example of entrepreneurial bricolage can be seen in the development of community-based tourism in East Java's tourist villages. Local entrepreneurs often overcome capital constraints by utilizing local resources, such as traditional building materials or community skills in arts and crafts. For instance, tourist villages that develop batik crafts using natural dyes from local plants create a unique appeal that sets them apart from competitors in other regions (Fu et al., 2020). This approach not only reduces production costs but also attracts tourists interested in authentic and environmentally friendly experiences, aligning with the growing trend of sustainable tourism (Kumar et al., 2024). Compared to other regions like Bali, tourism in East Java faces different challenges. Bali, as an established international tourist destination, has better infrastructure and stronger government support, leading to a quicker recovery post-COVID-19. Meanwhile, East Java, despite its significant potential, still struggles with issues of accessibility, promotion, and infrastructure development (Tajeddini et al., 2023). Before the pandemic, tourism SMEs in East Java were primarily focused on the local market and did not face intense global competition. However, with the changes brought by the pandemic, East Java's SMEs must quickly adapt to meet the increasingly complex and diverse market demands.

The literature review indicates that entrepreneurial bricolage has been successfully applied in various entrepreneurial contexts as a strategy to overcome resource constraints and create sustainable innovation (Baker & Nelson, 2005; Hernández-Barahona et al., 2023). Research conducted by Vanevenhoven et al. (2011) identifies how entrepreneurs can use bricolage techniques to leverage internal and external resources. Internal resources include labor, financial capital, social capital, and physical assets (Barney, 2001), while external resources involve elements such as access to capital markets, institutional support, and professional networks that can significantly contribute to business advancement (Demirkan, 2018; Huggins, 2010). Government policies also play a crucial role in supporting or hindering the development of tourism SMEs. The Indonesian government has launched various programs to support SMEs, such as tax incentives, entrepreneurship training, and improved access to financing through microfinance institutions (Kementerian Koperasi dan UKM, 2023). However, the implementation of these policies is often hampered by complex bureaucracy and a lack of coordination among agencies, which can impede SMEs from effectively applying entrepreneurial bricolage strategies (Tajeddini et al., 2023). On the other hand, initiatives like the development of government-supported tourist villages have shown positive results, where local communities are empowered to manage their resources and create unique tourism products.

This research aims to explore the direct and indirect effects of entrepreneurial bricolage on enhancing the competitive advantage of tourism SMEs in East Java, with innovation as a mediating variable. Entrepreneurial bricolage is an approach that utilizes available resources to create new innovations without relying on significant additional resources. The study adopts a positivist paradigm using path analysis to understand how entrepreneurs leverage limited resources to foster innovation. Additionally, this research seeks to contribute new insights by focusing on the implementation of entrepreneurial bricolage in the context of tourism in East Java, which differs from previous studies conducted in regions with different characteristics (Tajeddini et al., 2023). The study will be conducted through in-depth interviews with tourism SME actors and relevant stakeholders, as well as a review of relevant literature. It is expected that the findings of this research will provide practical guidance for governments and entrepreneurs in optimizing regional tourism potential through innovation-based entrepreneurial bricolage. By applying a bricolage approach that leverages both internal and external resources, tourism SMEs in East Java are expected to enhance innovation in governance structures, decision-making processes, and strategy implementation. Ultimately, this is expected to improve the competitiveness of tourism SMEs in East Java in the global market and contribute positively to the local economy and community welfare. The primary objective of this research is to develop innovation in the tourism sector by optimally utilizing local resources. Additionally, the study aims to provide solutions

for communities to improve their economy by developing livelihoods that meet local needs, as well as introducing local culture and values to tourists.

2. Literature Review and Hypothesis Development

2.1. *Entrepreneurial Bricolage and SMSE's Performance*

The concept of bricolage originates from anthropology and was first introduced by Claude Lévi-Strauss in his seminal work *"The Savage Mind"* (1966). In this work, Lévi-Strauss defines bricolage as the ability to *"make do with what is at hand"* referring to the use of existing materials and resources to achieve a specific goal. This concept was later adapted into entrepreneurship studies by Baker and Nelson (2005), who defined entrepreneurial bricolage as the entrepreneurial practice of leveraging limited but available resources to create innovative solutions. Further development of this concept by Fisher (2012) and Senyard et al. (2014) revealed that bricolage is not just an adaptive strategy, but also a creative approach that allows entrepreneurs to overcome resource constraints through the recombination and reinterpretation of existing resources. For instance, in situations where entrepreneurs lack access to substantial capital or advanced technology, they can utilize skills, social networks, and local knowledge to develop new and unique products or services that differentiate them from competitors. Bricolage is also closely linked to the concept of improvisation in entrepreneurship. Improvisation involves making decisions and taking actions quickly based on available resources, often without extensive long-term planning (Hmieleski & Corbett, 2006). In uncertain and dynamic environments, the ability to improvise and employ bricolage becomes crucial for business sustainability. This is especially relevant in contexts like East Java's tourism sector, where SMEs often face constraints such as limited capital and market uncertainty.

Previous research has demonstrated the utility of bricolage in resource-constrained environments, such as startups and small and medium enterprises (SMEs). Desa and Basu (2013) found that entrepreneurs in the informal sector, particularly in developing countries, often use bricolage to create new economic opportunities by leveraging limited resources. Similarly, Senyard et al. (2014) showed that bricolage can enhance innovative performance under resource constraints, positively impacting the growth of small firms. Moreover, Welter (2011) and Fisher (2012) emphasize that bricolage is also an effective strategy in coping with market uncertainty and environmental risks. Bricolage enables entrepreneurs to remain flexible and responsive to changes, which is key to surviving in dynamic business environments. In the context of tourism SMEs in East Java, where businesses are recovering from the impacts of the COVID-19 pandemic and facing increasing competition, the practice of entrepreneurial bricolage is expected to have a significant positive impact on SME performance. By effectively utilizing local resources, social networks, and indigenous knowledge, these SMEs can innovate and adapt to new market demands, thereby enhancing their competitiveness and sustainability.

H₁. Entrepreneurial Bricolage positively impacts SME's Performance

2.2. *Entrepreneurial Bricolage and SMSE's Performance Through Innovation*

Innovation is a key element in the development and sustainability of the tourism sector, particularly in emerging regions. In the context of tourism, innovation can be categorized into several types, including product innovation, process innovation, marketing innovation, and organizational innovation (Hjalager, 2010). Product innovation involves the development of new tourist attractions, such as theme parks, museums, or eco-tourism destinations, that attract tourists by offering unique experiences. Process innovation involves the implementation of new technologies, such as the use of mobile applications for hotel bookings or digital tourist guides, which enhance tourist convenience and satisfaction. Innovation in tourism is also closely linked to environmental sustainability and social responsibility. For example, the development of eco-tourism and sustainable tourism aims to preserve natural environments and local cultures while providing economic benefits to local communities. This includes initiatives such as village tourism that integrates cultural and natural activities, which not only enhance the attractiveness of the destination but also support environmental conservation and local community development (Lane & Kastenholz, 2015). In local contexts, innovation is often driven by the need to effectively utilize available resources and to respond to specific market demands. In Indonesia,

for instance, innovation in tourism often arises from collaboration between the government, local communities, and the private sector. Research by Utama and Surya (2018) found that the development of village tourism in Bali, which combines local culture with eco-tourism activities, has successfully improved the welfare of local communities and attracted tourists seeking authentic experiences.

Previous research by Hall and Williams (2008) and Hjalager (2010) underscores the importance of innovation as a key driver of destination competitiveness. They argue that destinations that actively pursue innovation tend to be more successful in attracting and retaining tourists. Additionally, Gössling et al. (2012) highlight that innovation in tourism is also related to efforts to reduce environmental impact through sustainable tourism, which is increasingly becoming a priority for modern tourists. In the context of SMEs, particularly in tourism, innovation plays a critical role in translating the creative use of limited resources (as seen in entrepreneurial bricolage) into tangible performance outcomes. The process of innovation allows SMEs to transform bricolage practices into marketable products, services, or processes that meet the evolving needs of tourists. As SMEs engage in entrepreneurial bricolage, they are likely to identify novel opportunities and solutions that, when innovatively applied, can lead to improved business performance. For instance, an SME in the tourism sector might use locally available resources to create a new eco-tourism experience. Through innovative practices, such as marketing this experience to niche markets or incorporating technology to enhance the tourist experience, the SME can significantly improve its market position and overall performance.

H₂. Innovation positively mediated Entrepreneurial Bricolage and SME's Performance

3. Methodology

A simple random sampling method commonly employed in entrepreneurial research was used, with questionnaire-based interviews conducted face-to-face and using google forms. The survey consisted of two phases: In the first phase, executives completed individual questionnaires independently. In the second phase, researchers conducted interviews with the founders to validate the questionnaire's authenticity. Researchers interviewed each founder, and the survey duration for each company was approximately 20–30 min. Before distributing the questionnaires, the purpose and content of the study were thoroughly explained to ensure that the provided information would only be used for academic research. The survey was conducted between July 2024 and September 2024, in 7 regencies in East Java (kabupaten Malang, Sidoarjo, Trenggalek, Tulung Agung, Lamongan, Gresik & Tuban) A total of 46 valid questionnaires were obtained. Among them, 12 SMEs were less than 3 years old, 13 SMEs were 3–5 years old, and 6 SMEs were 5–8 years old, and 15 SMEs more than 8 years old.

Table 1.
Variable Measurement and items.

Entrepreneurial Bricolage	<p>Increased income for the surrounding community</p> <p>Collaboration between the Tourism Office and the community</p> <p>Training provided by the Tourism Office for vendors</p> <p>Availability of adequate facilities and infrastructure for SMEs</p> <p>Competition among vendors</p> <p>Conflicts between managers and vendors</p> <p>Local vendor organizations or associations</p> <p>Utilization of available resources to create business solutions</p> <p>Innovation using limited resources</p> <p>Improvisation with resource constraints</p> <p>Turning limitations into business opportunities</p> <p>Combining resources to create new value</p> <p>Creativity in overcoming resource limitations</p> <p>Combining different resources to create new products or services</p> <p>Identifying potential in resources often overlooked</p> <p>Innovation as an integral part of business strategy</p> <p>Uniqueness of the business that is difficult to imitate</p>
SMEs Performance	<p>Value-added products or services for customers</p> <p>Adapting business strategies to market changes</p> <p>Strong relationships with customers and partners</p> <p>Introduction of new products or services to meet market needs</p> <p>Continuous improvement in product or service quality</p> <p>Meeting the needs and desires of customers</p> <p>Customer satisfaction with products or services</p> <p>Building strong relationships with customers</p> <p>Customer satisfaction as a top priority</p> <p>Customer feedback used to improve services</p> <p>Leveraging social networks to access additional resources</p> <p>Collaboration with other entrepreneurs</p> <p>Using social connections to find new business opportunities</p> <p>Reducing operational costs without sacrificing quality</p> <p>Using technology to improve operational efficiency</p> <p>Regular evaluation of operations for efficiency improvements</p> <p>Quick adaptation to changes in the business environment</p> <p>Openness to change and willingness to improve work processes</p> <p>Adjusting products or services to shifting market demands</p> <p>Rapid changes in business strategy when necessary</p> <p>Positive contribution to the local community</p> <p>Hiring employees from the local community</p> <p>Long-term plans for sustainable business growth</p>
Innovation	<p>Environmentally friendly business practices</p> <p>Considering environmental impact in business decisions</p> <p>Use of eco-friendly materials in production</p> <p>Commitment to reducing waste and emissions</p> <p>Investing in employee skill development for business sustainability</p> <p>Positive impact of the business on the local community</p> <p>Continuous innovation to ensure business relevance</p> <p>Understanding trends and tourist needs</p> <p>Contribution to a unique and authentic tourism experience</p> <p>Collaboration with tourism managers</p>

3.1. Research Variable

The measurement of Entrepreneurial Bricolage (X) adopts a scale developed by SENYARD consisting of 17 items; and the measurement of SME's Performance (Y) refers to a scale developed by Chandler and Hanks, with modifications made to the specific items to fit the needs of this study, consisting of 23 items. The measurement of Innovation (Z) follows a scale developed by Hunt et al. and revises it according to the research results of Dubey, consisting of 12 items, the measurement of A 6-point scale is used to measure the above variables, with a range from "strongly disagree" to "strongly agree", corresponding to the numbers "1" to "6", as shown in Table 1 above.

Building upon the discussions presented in the literature review, this study analyzes the relationship between entrepreneurial bricolage and SMEs performance. Furthermore, it delves into the mediating role of Innovation between Entrepreneurial Bricolage and Entrepreneurial Performance. A mediation model was established Figure. 1 based on these concepts.

3.2. Data Processing and Analysis Techniques

3.2.1. Classic Assumption

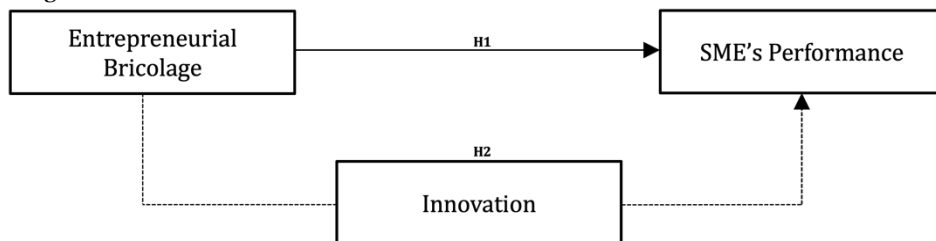
This study conducted classical assumption tests to ensure the regression equation's reliability. The tests included: 1) Reliability Test, 2) Validity Test, 3) Normality Test (*Kolmogorov-Smirnov*), 4) Autocorrelation Test (*Durbin-Watson*), 5) Multicollinearity Test (*Variance Inflation Factor*), and 6) Heteroscedasticity Test (*Variance Residual Unit*).

Path Analysis

Path analysis is a method used to examine the influence of mediating variables in the cause-and-effect relationship between other variables. It can demonstrate both the direct and indirect effects of independent variables on dependent variables. Direct effects occur without intermediary variables, while indirect effects occur through the presence of intermediary variables. Hypotheses concerning indirect effects are evaluated based on the significance level of alpha (<0.05), the direction of the coefficient relationship can be known from the Beta value of the test results if it's positive or negative.

Meanwhile, indirect relationships occur when there is a third variable acting as a mediator between two main variables. In this scenario, dependent variable will have arrows pointing to the mediator variable, which plays a role in explaining the portion of variation that cannot be accounted for by the variable itself.

Figure 1.



Path diagram.

4. Result and Discussion

4.1. Result

Researcher has already performed reliability-validity test and classical assumption tests on the data intended for this study. The findings from these tests reveal that the data are reliability and valid, thus exhibit a normal distribution, are free from autocorrelation, do not show signs of multicollinearity, and do not suffer from heteroscedasticity. These results are essential as they verify that the data fulfil the required statistical assumptions, making them appropriate for further analysis. As a result, the data in

this study are considered reliable and suitable for additional statistical testing. This thorough validation process enhances the credibility and accuracy of the forthcoming research findings.

4.2. Descriptive Statistic

Descriptive statistical analysis aims to provide a description or depiction of each research variable. The dependent variable in this study is SME's Performance. The independent variable in this research is Entrepreneurial Bricolage. This study using a mediating variable which is Innovation. Descriptive statistical analysis in this research is facilitated by IBM SPSS Statistics 27 software. The descriptive analysis of each variable is explained as follows:

Table 2.
Descriptive statistic.

	Minimum	Maximum	Mean
X	72	102	80.06
Z	105	138	116.63
Y	41	72	59.17
Valid N	46		

Based on the descriptive statistics table obtained from 46 observations, in the Entrepreneurial Bricolage (X), the scores range from 72 to 102 with a mean of 80.06, indicating that most SMEs in the sample engage in moderate to high levels of bricolage. This reflects the necessity for SMEs to be resourceful and creative in managing limited resources. For the Innovation (Z), has scores ranging from 105 to 138, with a mean of 116.63, showing that innovation is widespread and highly variable across SMEs. This suggests that while innovation is key for competitiveness, different firms may adopt innovation to varying degrees based on their capacity and resources. In the SME's Performance (Y), the scores range from 41 to 72, with a mean of 59.17, indicating that while some firms are performing well, many face challenges. Despite high levels of bricolage and innovation, external factors like market conditions or internal limitations may prevent these efforts from fully translating into higher performance. Overall, the data reflects the complex relationship between resourcefulness, innovation, and firm outcomes in a competitive and constrained environment. These figures reflect the various internal and external factors influencing the overall performance of the analyzed units.

4.3. Regression Test

In this study, the researcher utilized IBM SPSS Statistics 27 software to conduct a two-stage regression equation for path analysis. The first stage involved testing the influence Entrepreneurial Bricolage (X) on SME's Performance (Y).

Table 3.
Regression test.

Regression test:				
	Coefficients	Std. error	t	Sig.
(Constant)	0.101	0.224	0.454	0.001
X	0.255	0.165	1.547	0.015
F			4.635	
Sig.			0.015 ^a	
R square			0.421 ^a	
Adjusted R square			0.117 ^a	
Dependent variable: SME's performance				

Note: a. Predictors: (Constant), Entrepreneurial Bricolage

4.4. Path Analysis

The second stage is involving path analyst to examining the influence Entrepreneurial Bricolage (X) on SME's Performance (Y) with Innovation (Z) as mediator. The path analysis conducted yielded regression coefficients as follows:

Table 4.
Path analysis with innovation as a mediating variable.

	Coefficients	Std. error	t	Sig.
(Constant)	32.286	10.357	3.117	0.003
Z	21.331	12.503	1.706	0.000
X	1.053	0.129	8.159	0.000
F			66.563	
Sig			0.000 ^a	
R square			0.776 ^a	
Adjusted R square			0.602 ^a	
Mediating variable: Innovation				
Dependent variable: SME's performance				
Note: a. Predictors: (Constant), Entrepreneurial Bricolage.				

Based on the Table 4 result, it can be concluded that with an *Rsquare* value of 0.421 or 42.1% the Entrepreneurial Bricolage does have a positive effect on SME's Performance with sig. below alpha (0.05), thus the hypothesis **is supported**. In the results of the mediation effect by Innovation, it can be concluded that with an *Rsquare* value of 0.776 or 77.6% the Entrepreneurial Bricolage does have a positive effect on SME's Performance while there is mediation effect by Innovation is found sig. below alpha (0.05), so the hypothesis **is supported**.

$$\text{Entrepreneurial Bricolage} = \frac{21.331 \times 32.286}{\sqrt{(32.286^2 \times 12.503^2) + (32.286^2 \times 10.357^2)}} = 1.989 > Z \text{ Table}$$

Based on the results of the path analysis, the calculated Z-value is 1.989, which is greater than the critical Z-value of 1.958, with a significance level of 0.003. This indicates a positive relationship as evidenced by the coefficient value of 21.331. Therefore, it can be concluded that **complementary mediation** (*partial mediation*) exists between entrepreneurial bricolage and SME performance through innovation.

5. Discussion

5.1. Entrepreneurial Bricolage Positively Impacts SME's Performance

Entrepreneurial bricolage, a concept rooted in the work of Lévi-Strauss (1966), refers to the ability of individuals to creatively use available resources to solve problems and create value. In the context of entrepreneurship, Baker and Nelson (2005) advanced this concept by applying it to the ability of entrepreneurs to use limited and often unconventional resources to generate innovative solutions and drive business growth. This framework is particularly relevant to small and medium-sized enterprises (SMEs), which often face significant resource constraints. As such, it is reasonable to hypothesize that entrepreneurial bricolage can have a positive impact on the performance of SMEs, particularly in sectors like tourism, where adaptability and creativity are critical for success.

Several studies have demonstrated that entrepreneurial bricolage fosters innovation, which in turn improves firm performance. Fisher (2012) and Senyard et al. (2014) emphasize that bricolage is not merely a reactive strategy but a creative process that enables entrepreneurs to reconfigure existing resources, thereby generating new opportunities. This approach to resourcefulness is especially vital for SMEs that may lack access to external capital or cutting-edge technology, which larger firms can readily leverage. In tourism-based SMEs, where market demands are fluid and highly dependent on external factors such as seasonality, bricolage allows entrepreneurs to remain competitive by creating unique, often niche, products or services that cater to specific customer needs. Research by Desa and Basu (2013) further illustrates how SMEs in developing countries often depend on bricolage to seize business opportunities in resource-scarce environments. The capacity to make the most of existing resources, whether through local knowledge, informal networks, or unconventional materials, helps such firms remain viable and even outperform peers with more resources. In particular, bricolage has been linked to the ability of SMEs to innovate in terms of process and product development. Baker and Nelson (2005) note that firms practicing bricolage often engage in “*making do*” by combining resources

in ways that were not initially intended, leading to novel solutions. For instance, in the tourism sector, local entrepreneurs often use limited resources—such as local craftsmanship, cultural heritage, or natural environments—to create unique tourism experiences that attract visitors. This adaptive approach aligns with the findings of Fu et al. (2020), who explored how local tourism SMEs in East Asia leveraged bricolage to introduce eco-friendly tourism products that align with global sustainability trends, thus improving both competitiveness and performance.

While the concept of entrepreneurial bricolage has garnered widespread support as a beneficial strategy for SMEs, not all research agrees on its universal positive impact. Some scholars argue that the overreliance on bricolage might limit scalability. Baker and Nelson (2005) warned of the potential "trap" of bricolage, where firms become too focused on short-term solutions and fail to invest in more strategic, long-term resources that could enhance growth. In such cases, while bricolage may lead to immediate performance improvements, it could restrict an SME's ability to expand or compete on a larger scale in the long run. Additionally, Welter (2011) posited that the success of entrepreneurial bricolage is highly contextual, depending on the specific industry, region, and institutional environment in which an SME operates. For example, in highly regulated environments, or in sectors where large-scale investments are required to compete, bricolage may offer only limited benefits. Thus, while bricolage can be effective for SMEs in the tourism industry—where creativity, flexibility, and localized innovation are critical—it may not be as useful in sectors with high capital intensity or technological requirements.

From a theoretical perspective, the Resource-Based View (RBV) of the firm provides a solid foundation for understanding the connection between entrepreneurial bricolage and SME performance. According to Barney (2001), firms gain competitive advantage by leveraging unique resources that are valuable, rare, inimitable, and non-substitutable (VRIN). Entrepreneurial bricolage fits into this framework as it allows SMEs to exploit the unique, often underutilized, resources they possess, whether in the form of local knowledge, cultural assets, or even social capital. The ability to creatively recombine these resources enables SMEs to differentiate themselves in the marketplace, thus improving performance. Moreover, the theory of dynamic capabilities, proposed by Teece et al. (1997), underscores the importance of a firm's ability to adapt, integrate, and reconfigure internal and external competencies in response to rapidly changing environments. Entrepreneurial bricolage represents a practical application of dynamic capabilities, as it allows SMEs to remain agile and responsive in the face of resource constraints and environmental uncertainty. This aligns with Hmieleski and Corbett's (2006) findings, which emphasize the role of improvisation—a key element of bricolage—in enhancing the performance of entrepreneurial ventures, particularly in uncertain and dynamic markets such as tourism.

In practice, entrepreneurial bricolage provides a strategic framework for tourism-based SMEs to navigate the complex and competitive landscape of the post-pandemic era. As shown in the case of East Java's tourism sector, local SMEs often face significant limitations in terms of capital, infrastructure, and access to technology. However, by applying bricolage, these businesses can creatively utilize the resources they do have—such as local cultural heritage, natural beauty, and community networks—to enhance their offerings and improve performance. The unique tourism products that emerge from this process can serve as a competitive advantage in attracting both domestic and international tourists. In conclusion, the hypothesis that entrepreneurial bricolage positively impacts SME performance is supported by substantial evidence from both theoretical and empirical studies. While bricolage offers clear advantages in resource-limited environments by fostering innovation and adaptability, it is essential to recognize its limitations, particularly when it comes to scalability and long-term strategic growth. Nonetheless, for SMEs in dynamic industries like tourism, where creativity and flexibility are paramount, entrepreneurial bricolage remains a vital tool for enhancing performance and sustaining competitive advantage.

5.2. Innovation Positively Mediated Entrepreneurial Bricolage and SME's Performance

The intersection between entrepreneurial bricolage and SME performance is an area of significant interest within entrepreneurship research. Central to this discussion is the role of innovation as a

mediating factor that amplifies the effects of bricolage on performance outcomes. This extended analysis delves deeper into the theoretical underpinnings, empirical evidence, and practical implications of this relationship, while also addressing potential challenges and alternative viewpoints. Entrepreneurial bricolage, as initially conceptualized by Claude Lévi-Strauss (1966) and later adapted into entrepreneurship by Baker and Nelson (2005), involves the creative reconfiguration of available resources to overcome constraints and seize opportunities. In the context of SMEs, which often operate in resource-constrained environments, bricolage is not just a coping mechanism but a strategic approach to resource management that can lead to innovation. Innovation, defined broadly as the process of translating ideas into goods or services that create value (Schumpeter, 1934), plays a pivotal role in this dynamic. The resource-based view (RBV) of the firm, which posits that sustainable competitive advantage arises from the unique combination of valuable, rare, inimitable, and non-substitutable resources (Barney, 1991), provides a framework for understanding how bricolage and innovation interact. Bricolage can be seen as a catalyst that unlocks the latent potential of existing resources, which are then transformed through innovative processes into new products, services, or business models that enhance firm performance. Theories of dynamic capabilities (Teece et al., 1997) also complement this understanding by emphasizing the importance of a firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. Bricolage, in this sense, contributes to the development of dynamic capabilities by fostering a culture of experimentation and continuous learning, which is crucial for innovation.

Empirical research provides robust support for the hypothesis that innovation mediates the relationship between entrepreneurial bricolage and SME performance. A study by Fisher (2012) found that SMEs engaging in bricolage are more likely to innovate because they are compelled to find novel solutions to resource constraints. This innovation, in turn, significantly improves their competitive positioning and performance in the marketplace. Similarly, the work of Senyard et al. (2014) emphasizes that entrepreneurial bricolage is closely linked to frugal innovation, a type of innovation characterized by the creation of affordable and sustainable solutions tailored to resource-limited environments. Their findings suggest that frugal innovation serves as a conduit through which bricolage positively impacts firm performance, particularly in emerging markets where resource scarcity is a common challenge. A further study by Desa and Basu (2013) examined informal sector entrepreneurs in developing countries, highlighting how bricolage-driven innovation enabled these entrepreneurs to create value in markets characterized by institutional voids and limited access to traditional resources. Their research underscores the role of innovation as a critical mediator that transforms bricolage from a reactive strategy into a proactive means of driving growth and competitive advantage. In the context of tourism SMEs, innovation is particularly vital due to the industry's reliance on differentiating factors such as unique experiences, cultural authenticity, and sustainable practices (Hjalager, 2010). For example, an SME that employs bricolage to utilize local materials and cultural assets in developing a new tourism product can achieve a distinct competitive edge by appealing to the growing market for sustainable and authentic travel experiences (Lane & Kastenholtz, 2015). This innovation, driven by bricolage, directly influences the SME's performance by attracting a niche segment of tourists who value sustainability and authenticity.

While most of the research supports the positive mediating role of innovation, there are nuanced perspectives that suggest this relationship is not universally beneficial. For instance, Zahra et al. (2006) argue that while bricolage can spur innovation, it may also lead to short-term fixes that do not contribute to long-term strategic goals. This view is echoed by Garud and Karnøe (2003), who caution that bricolage, if not carefully managed, can result in path dependency where firms become overly reliant on improvised solutions, potentially stifling more radical innovations that require significant resource investment. To reconcile these perspectives, it is important to consider the contingency theory (Donaldson, 2001), which posits that the effectiveness of a strategic approach like bricolage depends on the specific environmental context. In stable environments, where resources are abundant, traditional strategic planning may yield better performance outcomes. However, in dynamic or resource-constrained environments, bricolage-driven innovation becomes crucial for survival and growth. This suggests that the mediating role of innovation is most pronounced in contexts where SMEs face

significant resource constraints and environmental uncertainty. Moreover, the theory of absorptive capacity (Cohen & Levinthal, 1990) provides additional insight into how bricolage and innovation interact to enhance performance. Absorptive capacity refers to a firm's ability to recognize the value of new external knowledge, assimilate it, and apply it to commercial ends. Bricolage enhances absorptive capacity by encouraging firms to experiment with available resources, thereby increasing their ability to integrate new knowledge and innovate. This, in turn, leads to improved performance outcomes, particularly in knowledge-intensive industries like tourism, where the ability to innovate and adapt quickly is critical.

Logically, the mediating role of innovation in the relationship between entrepreneurial bricolage and SME performance can be understood through the process of resource recombination. Bricolage involves the creative recombination of existing resources to generate new value propositions, which is the essence of innovation. In the context of SMEs, this recombination often leads to the development of new products, services, or business models that differentiate the firm from its competitors. This differentiation is key to achieving competitive advantage and, ultimately, superior performance. For example, an SME in the tourism sector might use bricolage to repurpose local cultural artifacts into unique tourism experiences, thereby creating a distinctive product offering that attracts niche markets. This innovation, driven by bricolage, enhances the SME's market position and performance by meeting the specific demands of tourists seeking authentic and sustainable experiences (Gössling et al., 2012). The practical implications of this relationship are significant. SMEs that cultivate a culture of bricolage are likely to be more resilient in the face of resource constraints, as they are better equipped to innovate and adapt to changing market conditions. Policymakers and business leaders should, therefore, encourage SMEs to embrace bricolage as a strategic approach to resource management and innovation. This could involve providing support for training programs that foster creative problem-solving and resourcefulness among entrepreneurs, as well as developing policies that reduce barriers to innovation, such as improving access to technology and financing for innovative projects.

In conclusion, the mediating role of innovation in the relationship between entrepreneurial bricolage and SME performance is well-supported by both theory and empirical research. Innovation acts as the mechanism through which the creative resource utilization inherent in bricolage is translated into tangible performance improvements. While there are potential challenges, such as the risk of becoming overly reliant on bricolage at the expense of strategic planning, the overall benefits of innovation in enhancing SME performance in resource-constrained environments are clear. This discussion highlights the importance of fostering a culture of innovation within SMEs to fully leverage the potential of entrepreneurial bricolage and achieve sustainable competitive advantage.

6. Conclusion

This study aimed to explore how entrepreneurial bricolage drives sustainable competitive advantage for SMEs in the tourism sector and to assess the mediating role of innovation in this relationship. The findings of this research highlight that entrepreneurial bricolage significantly enhances SME performance by enabling firms to effectively utilize limited resources, foster creative problem-solving, and generate innovative solutions. Specifically, entrepreneurial bricolage allows SMEs to navigate resource constraints and market uncertainties, ultimately leading to improved performance outcomes. Moreover, the research underscores the crucial role of innovation as a mediator in the relationship between entrepreneurial bricolage and SME performance. The study demonstrates that while bricolage facilitates resource optimization and creative problem-solving, it is the resulting innovation that translates these advantages into tangible competitive benefits. Innovation, encompassing new product development, process improvements, and marketing strategies, plays a pivotal role in enhancing market positioning and overall performance. By leveraging innovation, SMEs can transform their bricolage practices into sustainable competitive advantages that resonate in the dynamic tourism sector.

The implications of these findings are profound for SMEs, policymakers, and researchers. For SMEs, the study recommends fostering a culture of creativity and resourcefulness, investing in local knowledge and skills, and adopting flexible strategies to respond to market changes. Policymakers can support these efforts by providing targeted training programs, improving access to resources, and

creating environments that encourage innovative activities. Researchers are encouraged to build on this study by exploring the impact of specific types of innovation, comparing bricolage practices across different sectors and regions, and examining long-term effects on SME performance. Despite its contributions, this study has certain limitations. The focus on SMEs in East Java and the specific context of the tourism sector may limit the generalizability of the findings. Additionally, constraints related to the research design and data collection methods must be acknowledged. Future research could address these limitations by expanding the scope to include different regions and sectors, and by employing diverse methodological approaches.

In conclusion, this study provides valuable insights into the interplay between entrepreneurial bricolage and innovation in enhancing SME performance. By effectively leveraging bricolage and fostering innovation, SMEs in the tourism sector—and potentially in other sectors—can achieve sustainable growth and maintain a competitive edge in increasingly dynamic markets. The findings contribute to a deeper understanding of how resource-constrained firms can harness their internal capabilities to drive performance and competitiveness in the global arena.

Authorship Contribution Statement:

Nanik **Kustiningsih**: Creating Idea, review & editing, Data curation, Conceptualization development. Wuryan **Andayani**, review & editing, **Kuswandi**: Formal analysis. Vidia **gati**: Writing – review & editing, Alphasyah Lazuardy **Sidarta**: Writing – review & editing, Writing – original draft.

Acknowledgement:

This study has been conducted with financial support from *Direktorat Jenderal Pendidikan Tinggi Riset dan Teknologi Indonesia* for the research: “Does Innovation Enhance the Impact of Entrepreneurial Bricolage on SME Performance in the Tourism Sector?”. We would like to express our gratitude to the reviewers for their meticulous review of the article and for offering insightful comments that contributed to enhancing both the content and the presentation.

Copyright:

© 2024 by the authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

References

- [1] Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50(3), 329–366. <https://doi.org/10.2189/asqu.2005.50.3.329>
- [2] Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- [3] Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, 27(6), 643–650. <https://doi.org/10.1177/014920630102700602>
- [4] Brush, C. G., Greene, P. G., & Hart, M. M. (2001). From initial idea to unique advantage: The entrepreneurial challenge of constructing a resource base. *Academy of Management Executive*, 15(1), 64–78.
- [5] Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1), 128–152.
- [6] Coleman, M. L., Ragan, M., & Dari, T. (2024). Intercoder Reliability for Use in Qualitative Research and Evaluation. *Measurement and Evaluation in Counseling and Development*, 1–11. <https://doi.org/10.1080/07481756.2024.2303715>
- [7] Demirkan, I. (2018). The impact of firm resources on innovation. *European Journal of Innovation Management*, 21(4), 672–694.
- [8] Desa, G., & Basu, S. (2013). Optimization or bricolage? Overcoming resource constraints in global social entrepreneurship. *Strategic Entrepreneurship Journal*, 7(1), 26–49.
- [9] Donaldson, L. (2001). *The contingency theory of organizations*. Sage Publications.
- [10] Fisher, G. (2012). Effectuation, causation, and bricolage: A behavioral comparison of emerging theories in entrepreneurship research. *Entrepreneurship Theory and Practice*, 36(5), 1019–1051.
- [11] Fu, H., Chen, W., Huang, X., Li, M., & Köseoglu, M. A. (2020). Entrepreneurial bricolage, ambidexterity structure, and new venture growth: Evidence from the hospitality and tourism sector. *International Journal of Hospitality Management*, 85(July), 102355. <https://doi.org/10.1016/j.ijhm.2019.102355>
- [12] G.N. Chandler, S.H. Hanks, Measuring the performance of emerging businesses: a validation study, *J. Bus. Ventur.* 8 (5) (1993) 391–408.
- [13] Garud, R., & Karnøe, P. (2003). Bricolage versus breakthrough: Distributed and embedded agency in technology entrepreneurship. *Research Policy*, 32(2), 277–30

- [14] Gössling, S., Hall, C. M., Ekström, F., Engeset, A. B., & Aall, C. (2012). Transition management: A tool for implementing sustainable tourism scenarios? *Journal of Sustainable Tourism*, 20(6), 899-916.
- [15] Hall, C. M., & Williams, A. M. (2008). *Tourism and innovation*. Routledge.
- [16] Hernández-Barahona, J., San Román, E., & Gil-López, Á. (2023). Bricolage and Innovation in the Emergence and Development of the Spanish Tourism Industry. *Enterprise and Society*, 24(4), 1119-1161. <https://doi.org/10.1017/eso.2022.28>
- [17] Hitt, M. A., Ireland, R. D., Sirmon, D. G., & Trahms, C. A. (2011). Strategic entrepreneurship: Creating value for individuals, organizations, and society. *Academy of Management Perspectives*, 25(2), 57-75.
- [18] Hjalager, A. M. (2010). A review of innovation research in tourism. *Tourism Management*, 31(1), 1-12.
- [19] Hmieleski, K. M., & Corbett, A. C. (2006). Proclivity for improvisation as a predictor of entrepreneurial intentions. *Journal of Small Business Management*, 44(1), 45-63.
- [20] Huggins, R. (2010). Forms of network resource: knowledge access and the role of inter-firm networks. *International Journal of Management Reviews*, 12(3), 335-352.
- [21] Kementerian Koperasi dan UKM. (2023). Kebijakan pemerintah dalam mendukung pengembangan UKM di Indonesia. *Kementerian Koperasi dan Usaha Kecil dan Menengah Republik Indonesia*.
- [22] Kraus, S., Filser, M., O'Dwyer, M., & Shaw, E. (2018). Social entrepreneurship: An exploratory literature review and research agenda. *Journal of Business Research*, 86, 203-215.
- [23] Kumar, P., Aggarwal, B., Kumar, V., & Saini, H. (2024). Sustainable tourism progress: a 10-year bibliometric analysis. *Cogent Social Sciences*, 10(1). <https://doi.org/10.1080/23311886.2023.2299614>
- [24] Kustiningsih, N., Tjahjadi, B., & Soewarno, N. (2022). Projecting Experience of Technology-Based MSMEs in Indonesia: Role of Absorptive Capacity Matter in Strategic Alliances and Organizational Performance Relationship. *Sustainability*, 14(19), 12025.
- [25] Lane, B., & Kastenholz, E. (2015). Rural tourism: The evolution of practice and research approaches—towards a new generation concept? *Journal of Sustainable Tourism*, 23(8-9), 1133-1156.
- [26] Lévi-Strauss, C. (1966). *The savage mind*. University of Chicago Press.
- [27] Liu, L. (2016). Using Generic Inductive Approach in Qualitative Educational Research: A Case Study Analysis. *Journal of Education and Learning*, 5(2), 129. <https://doi.org/10.5539/jel.v5n2p129>
- [28] Mateus, S., & Sarkar, S. (2024). Bricolage—a systematic review, conceptualization, and research agenda. *Entrepreneurship and Regional Development*, 00(00), 1-22. <https://doi.org/10.1080/08985626.2024.2303426>
- [29] Musona, J., Sjögrén, H., Puimalainen, K., & Syrjä, P. (2020). Bricolage in environmental entrepreneurship: How environmental innovators “make do” at the bottom of the pyramid. *Business Strategy and Development*, 3(4), 487-505. <https://doi.org/10.1002/bsd2.112>
- [30] Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. Oxford University Press.
- [31] R. Dubey, A. Gunasekaran, S.J. Childe, et al., Big data analytics and artificial intelligence pathway to operational performance under the effects of entrepreneurial orientation and environmental dynamism: a study of manufacturing organisations, *Int. J. Prod. Econ.* 218 (2019) 339-351.
- [32] Ruslin, Mashuri, S., Rasak, M. S. A., Alhabsyi, F., & Syam, H. (2022). Semi-structured Interview: A Methodological Reflection on the Development of a Qualitative Research Instrument in Educational Studies. *IOSR Journal of Research & Method in Education (IOSR-JRME)*, 12(1), 22-29. <https://doi.org/10.9790/7388-1201052229>
- [33] S.D. Hunt, R.M. Morgan, The comparative advantage theory of competition, *J. Market.* 59 (2) (1995) 1-15.
- [34] Schumpeter, J. A. (1934). *The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle*. Harvard University Press.
- [35] Senyard, J., Baker, T., Steffens, P., & Davidsson, P. (2014). Bricolage as a path to innovativeness for resource-constrained new firms. *Journal of Product Innovation Management*, 31(2), 211-230.
- [36] Tajeddini, K., Gamage, T. C., Tajeddini, O., & Kallmuenzer, A. (2023). *Jurnal Internasional Manajemen Perhotelan Bagaimana keberanian berwirausaha mendorong keunggulan kompetitif yang berkelanjutan dari UKM pariwisata dan perhotelan : Peran mediasi diferensiasi dan.* 111.
- [37] Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- [38] Utama, I. G. B. R., & Surya, I. B. K. (2018). Community-based tourism as a strategy to improve the economy of local communities: A case study in Bali. *Journal of Sustainable Tourism Research*, 6(2), 123-134.
- [39] Vanevenhoven, J., Winkel, D., Malewicki, D., Dougan, W. L., & Bronson, J. (2011). Varieties of bricolage and the process of entrepreneurship. *New England Journal of Entrepreneurship*, 14(2), 53-66. <https://doi.org/10.1108/NEJE-14-02-2011-B005>
- [40] Welter, F. (2011). Contextualizing entrepreneurship—Conceptual challenges and ways forward. *Entrepreneurship Theory and Practice*, 35(1), 165-184.
- [41] Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171-180.
- [42] Zahra, S. A., Sapienza, H. J., & Davidsson, P. (2006). Entrepreneurship and dynamic capabilities: A review, model and research agenda. *Journal of Management Studies*, 43(4), 917-955.