## Entrepreneurial Bricolage, Agility, and Organizational Performance: Evidence from Small and Medium scale Enterprises

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## Abstract

Entrepreneurial bricolage and organizational agility are key strategies for overcoming resource constraints and navigating volatile market conditions in today's contemporary business organizations. Bricolage enables organizations to creatively utilize available resources, while agility helps them quickly adapt to changing environments. Together, these strategies empower businesses to improve their performance and competitiveness, despite the numerous challenges they face in fast-paced turbulent markets. Whereas identifying the importance of entrepreneurial bricolage and organizational agility to boost the performance outcomes of organizations, there is still a significant empirical gap in understanding how these new strategies particularly contribute to the performance of business organizations. Additionally, a significant literature gap can be observed in investigating the connection between entrepreneurial bricolage and organizational agility and their collective influence on organizational performance. Small and Medium scale Enterprises located in Southern province of Sri Lanka were considered as the population of the study and 335 SMEs were approached based on a systematic random sampling technique. A structured questionnaire was used to gather primary data for the study while using some secondary data sources as well. Structural Equation Modelling approach powered by AMOS was applied to analyze the data of the study. The study findings stresses that there is a positive and significant direct relationship between entrepreneurial bricolage and organizational performance. Further, study results postulate that the link between entrepreneurial bricolage and performance can stimuli through effective adaptation of organizational agility. Organizational agility enables firms respond to sudden market changes and volatility being more flexible, thereby performing as a mediator amplifies the direct effect of bricolage on performance. Future researchers can investigate the association between bricolage, agility and performance in longitudinal studies, and in different industries to get more understanding how they respond in different circumstances.

**Keywords:** Dynamic Capabilities, Entrepreneurial Bricolage, Organizational Agility, Organizational Performance, Small and Medium Enterprises

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#### Introduction

Business organizations across the globe are facing significant challenges due to the resource constraints. The prevailing market instability has resulted from different factors such as political unrest, technological disruption, crises like Covid-19 etc. These factors have severely affected organizational ability to predict markets and making short-term and long-term strategic formulations (Baker & Judge, 2020). Many organizations, especially Small and Medium scale Enterprises (SMEs) managing their businesses in uncertain market conditions, are facing lot of difficulties due to limited resources availability such as finance, labor, and technology in achieving their organizational outcomes (Czakon et al., 2020).

In the rapidly changing business environment, business organizations are pressured to respond to the volatile and unpredictable market settings. Market instability understands the unpredictable ups and downs of the market conditions, including sudden market shifts, customer demand changes, competitive culture, and economic crises etc. These unpredictable situations to foster organizations to respond rapidly, amidst limited resources available in the organizations (Wenzel et al. 2020). Due to sudden market shifts, organizations are experiencing increases in operational costs, supply chain challenges, changing consumer behaviors, stressful financial health and many more (Alaaraj et al., 2018). As today's businesses are facing for sever resource constraints, the ability to pursue innovative opportunities and adapt to new market shift is limited. The lack of enough resources to meet organizational goals and objectives hinders the organizational capacity to respond to sudden pressures coming from internal and external environments. As well as these resource limitations resulted to hinder the competitiveness and agile behavior of firms. In such a situation organizations are highly depending on their innovative capabilities, including strategies on entrepreneurial bricolage which focus to utilize available resources innovatively as to address new challenges enabling firms to make do with what they really have (Baker & Nelson, 2022). Entrepreneurial bricolage has become a prominent mechanism for business organizations to navigate their opportunities in resource constrained environment. Bricolage allows firms to be flexible, innovative, and resilient while facing various limitations and issues (Senyard et al., 2019). Organizational agility has identified as an important element for organizations seeking out to deal with market instability, allowing them to quickly adjust and reconfigure their plans and strategies in response to external pressures (Doz & Kosonen, 2020). Additionally, organization agility refers to the ability to respond in rapidly changing environments by adjusting their strategies, operations, and business processes.

SMEs are recognized as a pivotal sector in Sri Lankan economy, contributing for generating significant amount of employment opportunities, innovations, economic growth and development. Although SMEs are identified as a critical sector, they are facing many challenges in the way of achieving sustainable performance goals due to resource-based constraints (Ranasinghe, 2021). Also, SMEs ability to achieve competitive advantage and growth is limited by the market volatility characterized by economic uncertainty, geopolitical instability, global interruptions, and technological disruptions (Weerakkody & Ariyasinghe, 2021). Given these encounters, innovative strategies should be incorporated into the decision-making process of SMEs. There, entrepreneurial bricolage and organizational agility are playing significant roles to overcome constraints faced by SMEs and adopt new innovative solutions for market instabilities (Baker & Nelson, 2022). Whereas identifying the importance

of entrepreneurial bricolage and organizational agility to boost the performance outcomes of firms, still, there is a significant empirical gap in understanding how these new strategies particularly contribute to the performance of business organizations in Sri Lanka (Baker & Nelson, 2022; Ranasinghe, 2021; Senyard et al., 2019). Additionally, many studies that have been carried out to investigate bricolage and agility focused on large scale organizations or SMEs in developed western countries (Davidsson et al., 2020; Senyard et al., 2019). Empirical evidence is limited to understand the association of bricolage and agility on business performance in emerging economies, especially in resource constrained countries like Sri Lanka (Ranasinghe, 2021; Weerakkody & Ariyasinghe, 2021). Additionally, a significant literature gap can be observed in investigating the connection between entrepreneurial bricolage and organizational agility and their collective influence on organizational performance. Although, studies have independently worked on bricolage and agility, there is limited number of studies that have been carried out on how these two concepts interact to boost the organizational performance outcomes. Therefore, a new study is needed to empirically fill these research gaps available in the existing literature by investigating the relationship between entrepreneurial bricolage, agility and performance.

This study aims to make four significant contributions to strategic management literature. First, the study investigates the proficiency to improve organizational performance through the capability of entrepreneurial bricolage of the firm by assessing the relationship between Entrepreneurial Bricolage (EB) and Organizational Performance (OP). Second, it aims to investigate the relationship between entrepreneurial bricolage and organizational agility. Third, the study aims to explore the relationship between organizational agility and organizational performance. Fourth, it generates novel findings on the mediating effect of organizational agility on the EB-OP relationship. At a broader level, this study offers new insights into how organizations can strategically manage their existing resources amidst highly volatile market conditions to achieve performance outcomes and growth. The study is organized as follows to achieve these objectives. First, the theoretical background is developed, and the conceptual framework explaining the EB-OP relationship is presented. Second, the study hypotheses are introduced, along with theoretical explanations for the expected outcomes. The third section outlines the methodology and presents the study's findings thereafter. Finally, the study discusses the empirical results and their managerial and theoretical implications, along with future research directions in this area.

## **Literature Review**

## Entrepreneurial Bricolage

Entrepreneurial Bricolage can be defined as the ability of an entrepreneurial venture to manage its operations innovatively and creatively using available resources, to improvise their businesses and solve problems and issues by identifying opportunities available in the marketplace, especially in the resource constrained environment (Baker & Nelson, 2022; Senyard et al., 2019). Entrepreneurial bricolage is a concept that refers to making organizational activities better using whatever the resources available, though they are limited or not for the exact desired purpose at hand. When entrepreneurs are facing challenging circumstances, if they cannot afford new materials, tools, and techniques, they are trying to combine existing resources with unconventional resources to solve problems innovatively. Scholars (Zahra, 2022; Fisher et al., 2020) have emphasized that entrepreneurial bricolage supports business organizations to survive by facing challenges in volatile markets innovatively. It presses entrepreneurs to discover new directions to succeed despite of resource restraints, especially in unstable or competitive markets. Moreover, bricolage preserve to serve as a critical factor for innovation, as entrepreneurs discover new pathways that can be used for old resources (Zahra, 2022).

#### **Organizational** Agility

Organizational agility refers to an organization's ability to adapt to rapidly changing market conditions, environmental conditions, or internal conditions. Agility refers to the organizational ability to address the challenging and highly dynamic entrepreneurial environment by adjusting and operating business activities expeditiously (Oosterhout et al., 2006). It further describes how to be flexible, responsive, and quick to readjust available resources, business processes, and strategies to address challenges and opportunities. Agility supports firms to flourish in fast-paced, dynamic environments, making their operations better by introducing innovative solutions and gain competitive advantages. Companies that are agile be able to immediately adapt their strategies to react to changes in customer preferences, technology drifts, or competitive pressures. This assists organizations to stay significant and competitive (Worley et al., 2020). Agility encourages a culture of innovation by advancing investigation and rapid repetitions. Agile firms can initiate new products and services sooner than rivals (Doz & Kosonen, 2022). In unstable environments, agile firms are stronger as they are better at predicting and adjusting to disruptions. This elasticity preserves to decrease the risks linked with market instability (Gonçalves & Reis, 2021).

#### **Organizational Performance**

Business performance indicates how far a business is managing well or what degree of success is achieved by delivering quality products and services to their customers while maximizing the stakeholders' wealth. Assessing the firm's performance has become an important strategic management practice by organizations. Many scholars have considered measuring firm performance as one of the prime objectives as it directly influences on performance improvements (Javed et al., 2020; Venkatraman & Ramanujam, 1986; Williams, 2018). The performance of an organization is considered a benchmark of growth and successful development (Jennings & Beaver, 1997). Measuring performance is a complex and critical task for an organization of its multidimensional behavior (Ismail et al., 2017). The degree to which an organization meets its stakeholder's expectations and seeks growth and survival itself is referred to as performance (Faroog & Vij, 2018). The use of subjective measures to measure the firm's performance is the common practice as owner-managers do not like to disclose their sensitive financial details to the outside, are unavailability for proper records, and do not allow for comparisons (Farooq & Vij, 2018). However, performance of a business organization can be assessed using a variety of measurements such as financial and non-financial criteria (Perera & Perera, 2020). As per Santos and Brito, (2012), return on assets, return on equity, net income, return on investment, earnings per share and other quantifiable measures can be considered as financial measurements. The reputation of the company, goodwill, public image, employee satisfaction, and customer satisfaction was considered by Lumpkin and Dess (2001)

as non-financial measurements to assess the business performance. Some have argued that subjective measures are preferred rather than objective measures (Harris, 2001). As many companies hesitate to provide financial information, using objective measures to assess the OP is not prudent. Narver and Slater, 1990; Deshpande et al., 1993; and Greenley, 1995 have used subjective measures to consider the OP while Ruekert, 1992; Au and Tse, 1995; Tse, 1998; Hult et al., 2001 used objective measures to assess the OP in their studies. Conversely, Jaworski and Kohli, 1993; Selnes et al., 1996; Harris, 2001 have used both subjective and objective measures of performance in their studies. Today, the most common, and popular practice among scholars to measure performance is relative performance (Farooq & Vij, 2018; Kaplan & Norton, 2004). The relative performance depends on the competitor's reactions and their performance (Richard et al., 2008; Hsiao et al., 2011). If the major competitor in the industry is not known, the industry average can be used as a parameter to measure the relative performance (Wiklund & Shepherd, 2003; Berthon & Hulbert, 2004; Darroch, 2005). To mitigate the issues with performance measurements in an organization, the balance scorecard approach provides a feasible solution involving assessing the financial and non-financial measures of a firm (Kaplan & Norton, 2004). The balance scorecard system mainly focuses on four main perspectives of a business name, learning and growth of the business, internal process of the business, customer, and financial aspect of the business (Kaplan & Norton, 2004).

#### Entrepreneurial Bricolage and Organizational Performance

In resource constrained and volatile environments, link between bricolage and performance has been taken a significant attention among scholars. Entrepreneurial bricolage fostering firms to combine limited resources creatively and innovatively to develop new solutions for organizational critical problems (Guo et al., 2023). Literature on strategic sensemaking confirms that entrepreneurial bricolage supports firms to be more adaptive into environmental dynamics through effective utilization of existing resources innovatively, which in turn enhances organizational performance in both financial and non-financial ways (Ribeiro-Soriano & Kraus, 2022). Firms who are capable enough to introduce bricolage related strategies improvise their innovative culture and help to pursue new entrepreneurial opportunities, leading to improved organizational performance achieving competitive advantages (Liu et al., 2022; Williams & Shepherd, 2021). These innovations regularly help organizations to outperform their rivals with better resources. Moreover, entrepreneurial bricolage impacts organizational performance through heightening a firm's capacity to address internal and external environmental changes. Arikan et al., (2021) opined that firms who are capable of entrepreneurial bricolage are more flexible and capable of navigating market instability which has a direct impact on greater operational and financial outcomes. Combining improvisation and creativity, firms can quickly adapt to new challenges leading to sustainable performance targets even under pressure (Jiao et al., 2022). Furthermore, entrepreneurial bricolage accepted as a strategy to respond environmental uncertainty allowing firm to be resilient in highly volatile market, finally contribute to superior performance outcomes (Fisher et al., 2020).

H1: Entrepreneurial bricolage performs a positive and significant relationship with organizational agility

#### Entrepreneurial Bricolage and Organizational Agility

Understanding about the relationship between entrepreneurial bricolage and organizational agility is vital for the businesses facing for an uncertain environment. The knowledge on this combination explains how firms can effectively and efficiently navigate market turbulence and exploit benefits from limited resources (Guo et al., 2023). Bricolage explains how existing resources of an organization utilize innovatively to generate new solutions to address challenges and pursue opportunities available in the marketplace, fostering creativity and flexibility in an organization (Ribeiro-Soriano & Kraus, 2022). Literature on recent studies emphasis that strategies develop under the bricolage are inherently agile as they enable firms to quickly adapt to rapid changes in market conditions and pursue benefits of emerging opportunities. Liu et al., (2022) postulates that entrepreneurial bricolage increases the organizational agility through improving and integrating available resources of the organization. This link allows firms to achieve competitive advantages in the marketplace where adaptability is pivotal for success and growth. Additionally, chemistry between bricolage and agility influences creating innovative culture within an organization and responsiveness (Jiao et al., 2022). Bricolage not only creates agile mindsets but also encourages organizations to identify innovative ideas that traditional resources can utilize to get their maximum output. Firms that practice bricolage can effectively improve their agility by utilizing robust expertise for prompt decision-making and resource reconfiguration (Arikan et al., 2021). The relationship between bricolage and agility underlines the necessity of being resourceful to drive agility within an organization which embrace better alignment of organizational resources to response internal and external pressures (Williams & Shepherd, 2021). Thus, the interaction between entrepreneurial bricolage and organizational agility is identifying as a critical factor for continuing performance outcomes and realizing strategic objectives in growing business landscape.

## H2: Entrepreneurial bricolage performs a positive and significant relationship with organizational agility

#### **Organizational Agility and Organizational Performance**

Modern research in strategic management has extensively investigated the connection between organizational agility and organizational performance. Especially, focused on environmental effects characterized by sudden market shifts and uncertainty. Agility refers to the firm's ability to respond to rapid market changes, which directly improve the performance outcomes (Sambamurthy et al., 2003). Recent literature on agility posits that firms who are capable of more agility records higher levels of performance than the less agile organizations in volatile markets adopting innovative strategies to overcome uncertainty (Gyemang & Emeagwali, 2020). Teece et al., (2021) emphasized that agile firms have more ability to manage risk and uncertainty, which leads to enhance performance. Making quick decisions in highly volatile markets and managing resources effectively enables firms to maintain competitiveness and more profitability (Harraf et al., 2015). Particularly, organizational agility is closely related to the non-financial aspects of performance like employee satisfaction, customer satisfaction, products and service quality, and innovations. Agile organizations are more capable of addressing customer demands in a better way which create loyal customers and greater market share at large (Worley et al., 2020). Furthermore, Gonçalves and Reis (2021) emphasize that

agility promotes firm's flexibility, letting them to adjust their strategies and processes to respond internal or external challenges, preceding to long-term sustainability (Tallon & Pinsonneault, 2011; Felipe et al., 2020). These literature backgrounds underline that firms' ability in agility not only increase organizational performance but also acquire a strategic reward that heightens long-term organizational growth and success.

H3: Organizational agility performs a positive and significant relationship with organizational performance

# Entrepreneurial Bricolage), Organizational Agility and Organizational Performance

Organizational ability to utilize, integrate, create and adapt its resources to improve excellent level of performance can inspire through dynamic capabilities of the firm (Teece et al., 1997). Further they have argued how resource-based view focuses on utilizing organizational resources to gain competitive advantage, whilst dynamic capabilities are paramount to improve and adapt its resources to associate with market changes (Teece, 2007). Grounded on this theoretical base, it can be presumed that the relationship between entrepreneurial bricolage and organizational performance (resource-based view of the firm) can be inspired by organizational agility (Dynamic capability of the firm). Entrepreneurial bricolages play as a stimulus for organizational agility, which in turn increases organizational performance. Organizations practice bricolage related strategies can leverage their limited resources innovatively that foster greater flexibility and responsiveness to uncertain markets (Barreto, 2010). Liu et al. (2022) emphasized that firms employ entrepreneurial bricolage can easily adopt a more agile culture that allows them to quickly adapt in challenging situations. This agile capability of firms ensures improving organizational performance as they can quickly respond to market changes effectively and innovatively over competitors (Ambrosini & Bowman, 2009). Thus, organizational agility refers to as a critical element that fostering the link between bricolage and performance. Additionally, this association stresses the importance of encouraging agility through leveraging the benefits of entrepreneurial bricolage, finally steering to improve organizational performance in dynamic and competitive environments.

H4: Organizational agility mediates the relationship between entrepreneurial bricolage and organizational performance

#### **Theoretical Lenses**

Several theoretical underpinnings can be observed to get a comprehensive understanding of the interrelationships between entrepreneurial bricolage, organizational agility and organizational performance. First, the Resource-based view (RBV) of the firm theorizes that organizational resources and capabilities are essential to achieve their competitive advantage and excellent performance outcomes (Grant, 1996). The latent variable of entrepreneurial bricolage and its effects can be discussed under the RBV lens as it describes how organization can leverage its existing resources creatively and innovatively to get desired outputs. Organizational agility also can be understood in the background of RBV as it discusses how a firm can utilize organizational resources leading to a superior level of performance. Current studies can discuss

how firms with strong entrepreneurial bricolage strategies can acquire unique resources that enhance agility and, subsequently, performance (Barney, 1991). Additionally, the dynamic capability theory also stresses the importance of a firm's ability to combine, foster, and reconfigure its internal and external resources and competencies to respond to rapid market changes. Entrepreneurial bricolage contributes to develop the dynamic capability of a firm by enabling them to respond to volatile markets challenges creatively and innovatively. Organizational agility is recognized as an indicator of how a firm can utilize its capabilities as quickly as possible amidst sudden market changes, which ultimately improves organizational performance (Teece, 2007). Following these theoretical underpinnings tolerates for a multidimensional investigation of the relationships between entrepreneurial bricolage, organizational agility, and organizational performance, offering more understandings into how firms can leverage these ideas to reap strategic benefits and enhanced performance.

#### Methodology

The study was adapted to the quantitative research methodology to address the objectives of the study. Cross-sectional research design was followed to develop the conceptual model, data collection process, and testing the path model. Entrepreneurial bricolage was identified as the independent variable of the study which is assessed with eight perceptual measures adapted from Senyard et al., (2014). Organizational agility, the mediator variable of the study was measured based on three dimensions: operational agility (five items), customer agility (four items), and partnering agility (four items) which was adapted from Sambamurthy et al., (2003). Whereas organizational performance was measured by six items adapted from Kaplan and Norton (1992) focusing both financial and non-financial performance metrices. All these items were measured using five-point Lickert scale perceptual measures. The research instrument was the structured questionnaire which consisted of four sections. Section one focused on the profile of respondents and section two reserved to discuss the entrepreneurial bricolage. Organizational performance was measured in section three and section four addressed the organizational agility.

| Latent Construct | Dimension   | Items                                    | Source         |
|------------------|-------------|--|----------------|
| Entrepreneurial  |             | EB1. We are confident of our ability to  | Senvard et al. |
| Bricolage        |             | find workable solutions to new           | (2014)         |
| Differinge       |             | challenges by using our existing         | (_01.)         |
|                  |             | resources                                |                |
|                  |             | EB2. We gladly take on a broader range   |                |
|                  |             | of challenges than others with our       |                |
|                  |             | resources                                |                |
|                  |             | EB3. We use any existing resource that   |                |
|                  |             | seems useful to respond to a new         |                |
|                  |             | problem or opportunity                   |                |
|                  |             | EB4. We deal with new challenges by      |                |
|                  |             | applying a combination of our existing   |                |
|                  |             | resources and other inexpensive          |                |
|                  |             | resources available to us                |                |
|                  |             | EB5. When dealing with new problems      |                |
|                  |             | or opportunities we act by assuming that |                |
|                  |             | we will find a workable solution         |                |
|                  |             | EB6. By combining our existing           |                |
|                  |             | resources, we take on a surprising       |                |
|                  |             | variety of new challenges                |                |
|                  |             | EB7. When we face new challenges, we     |                |
|                  |             | put together workable solutions from     |                |
|                  |             | our existing resources                   |                |
|                  |             | EB8. We combine resources to             |                |
|                  |             | accomplish new challenges that the       |                |
|                  |             | resources were not originally intended   |                |
|                  |             | to accomplish                            |                |
| Organizational   | Operational | OPA1 We can quickly fulfill demands      | Sambamurthv    |
| Agility          | agility     | for rapid responses                      | et al., (2003) |
| 8)               | 8)          | OPA2 We can quickly scale up or scale    | , ()           |
|                  |             | down our production/service level to     |                |
|                  |             | support demand fluctuations in the       |                |
|                  |             | market                                   |                |
|                  |             | OPA3 We can quickly make the             |                |
|                  |             | necessary arrangements when there is a   |                |
|                  |             | disruption in supplies from our          |                |
|                  |             | suppliers.                               |                |
|                  |             | OPA4 We can quickly adjust with the      |                |
|                  |             | technology to meet the customers'        |                |
|                  |             | demand specifications                    |                |
|                  |             | OPA5 We can quickly change our           |                |
|                  |             | product designs/service patterns as per  |                |
|                  |             | customer request                         |                |

Table 1: Operationalization

|                | Customer   | CA1 We are quick to develop              | Sambamurthy    |
|----------------|------------|--|----------------|
|                | agility    | appropriate decisions in customer        | et al., (2003) |
|                |            | changes.                                 |                |
|                |            | CA2 We are quick to implement            |                |
|                |            | appropriate decisions in customer        |                |
|                |            | changes.                                 |                |
|                |            | CA3 We constantly look for ways to       |                |
|                |            | reengineer our organization to better    |                |
|                |            | serve our marketplace.                   |                |
|                |            | CA4 We treat market-related changes as   |                |
|                |            | opportunities to capitalize quickly.     |                |
|                | Partnering | PA1 We can exploit the resources and     | Sambamurthy    |
|                | agility    | capabilities of suppliers to enhance the | et al., (2003) |
|                |            | quality and quantity of products and     |                |
|                |            | services.                                |                |
|                |            | PA2 We work with external suppliers to   |                |
|                |            | create high-value products and services. |                |
|                |            | PA3 We can manage relationships with     |                |
|                |            | outsourcing partners.                    |                |
|                |            | PA4 We can switch suppliers to avail of  |                |
|                |            | lower costs, better quality, or improved |                |
|                |            | delivery times.                          |                |
| Organizational |            | OP1 We have recorded a higher market     | Kaplan and     |
| performance    |            | share                                    | Norton (1992)  |
|                |            | OP2 We have recorded higher annual       |                |
|                |            | sales                                    |                |
|                |            | OP3 We have generated new                |                |
|                |            | employment opportunities                 |                |
|                |            | OP4 We have produced higher quality      |                |
|                |            | Products/Service                         |                |
|                |            | OP5 We have achieved higher customer     |                |
|                |            | satisfaction                             |                |
|                |            | OP6 We have received higher employee     |                |
|                |            | satisfaction                             |                |

The study was considered the SMEs established in Southern province of Sri Lanka. SMEs were considered for this study as they are particularly vulnerable to market dynamics and resource constraints when compared with large scale organizations. Also, SMEs are highly dependent on creative, flexible, and adaptive strategies for their survival and growth in resource-constrained environments (Beck et al., 2020; Taneja eta la., 2016; Senyard et al., 2014). The Southern province of Sri Lanka is consisted with three districts namely, Matara, Galle, and Hambanthota. Based on the SME registries maintained by the Chamber of Commerce and Industries in each district, it was able to identify 2654 SMEs as the population of the study. The sample size of the study was determined based on the sample size determination table proposed by Krejcie and Morgan (1970). Accordingly, 335 samples were recommended in the sample size determination table, and every 9<sup>th</sup> number of SME form each

registry was considered for the sample of the study following the systematic random sampling technique (Zikmund et al., 2010). 307 responses were received, and 07 responses had to be rejected during the data cleansing process as they did not meet the prerequisites of the data analysis. Perceptual responses of owner managers of SMEs were considered to measure the study constructs. Based on the CB-SEM (AMOS), the reliability, validity, and model fitness indices were measured to assess the measurement model. Once the fitness of the measurement model is established, the structural model was tested for hypotheses using CB-SEM (AMOS). AMOS has been widely used to assess the relationships between latent constructs in entrepreneurial studies (Liñán, & Jaén, 2020). Further, they explained that structural equation modeling (SEM) in AMOS can support to validate complex models of entrepreneurship (Hair et al., 2012).



Figure 1: Conceptual Framework

#### Results

Descriptive measures of the study data are presented at the beginning to provide an overall picture of the profile of respondents. Using Mean (M) and Standard Deviations (SD) of latent constructs, the descriptive measures were presented. Second, a Confirmatory Factor Analysis (CFA) was performed using Structural Equation Modelling approach to measure the reliability and validity of the study constructs as a pre-requisite of the SEM analysis (Hair et al., 2010). Thus, composite reliability, Cronbach's Alpha, and discriminant validity together with the model fit indices were tested under the CFA to validate the measurement model. Finally, the structural model was developed to test the direct and indirect hypotheses of the study.

Table 1 given below indicates the Mean and Standard Deviation values observed for all latent constructs of the study. Mean values were between 3.27-3.57, which indicates that respondents

of the study scored slightly more than the average of the values, which exhibits the positive tendency of the respondents towards EB, OA, and OP. Additionally, SD values range from 0.62 to 0.76 which indicates the dispersion of Mean values is between the given range.

| Table 2: Mean and Standard Deviation |          |                         |  |  |  |
|--------------------------------------|----------|-------------------------|--|--|--|
| Latent Constructs                    | Mean (M) | Standard Deviation (SD) |  |  |  |
| Entrepreneurial Bricolage            | 3.45     | 0.69                    |  |  |  |
| Operational Agility                  | 3.57     | 0.76                    |  |  |  |
| Customer Agility                     | 3.31     | 0.62                    |  |  |  |
| Partnering Agility                   | 3.35     | 0.65                    |  |  |  |
| Organizational Performance           | 3.27     | 0.71                    |  |  |  |

#### **Confirmatory Factor Analysis (CFA)**

To assess the measurement model and its fitness of the study, a Confirmatory Factor Analysis was performed. In this stage, it is a pre-requisite to determine the reliability, validity and fitness indices of the model before moving to test the hypotheses using the SEM approach. Table 2 given below illustrates several statistics generated from AMOS to confirm the reliability, validity and the model fitness of the study constructs. Thus, CMIN/DF, Comparative Fit Index (CFI), Goodness of Fit Index (GFI), Normed Fit Index (NFI), Tucker-Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA) were tested to assure the Goodness-Of-Ft (GOF) of the study.

As Table 2 describes, Normed Chi-square ( $\chi^2/df$ ) was 2.035 which is indicated that the model is moderately fit (Hair et al., 2010). CMIN/DF (2.15) is fully scoped within the advised range as suggested by Hair et al., (2010). Hence, the CMIN/DF confirms that the model is appropriate for further validation. In the third, CFI was estimated, and it shows a value of 0.921 which satisfactorily represents a good model fit (Hair et al.,2010). The fourth reflector, GFI, reported value of this model is 0.842 which satisfactorily met the threshold level (Hair et al., 2010). Next, NFI was estimated and reported 0.901, suggesting that the normed fitness of the model is marginally achieved the model fitness (Hiar et al., 2017). Additionally, TLI value (0.914) and PNFI value (0.644) also satisfactorily enables to meet the threshold values (TLI near to 1.00 and PNFI > 0.50) showing a highly acceptable model fitness (Khan et al., 2021). Finally, RMSEA was performed, and it generated a value of 0.067, which is less than the threshold level of 0.08 (Hair et al., 2010). Thus, the RMSEA also suggested a good model fit among all measurement indicators of this study.

#### Test for Reliability and Validity

Reliability and validity measures are essential to confirm the appropriateness of the measurement constructs of the research model. Table 3 given below shows the composite reliability and Cronbach's alpha to test the reliability and average variance extracted to test the validity of the model. Composite reliability and Cronbach's alpha should be reported to be more than 0.70 to establish reliability (Hair et al., 2017). According to the information given in Table 3, all reliability and validity requirements are satisfactorily established. Average Variance Extracted (AVE) was tested to ensure the convergent validity of the conceptual model. All

constructs of the model were reported greater than 0.5 of AVE values (Hair et al., 2010). This confirms that the validity of the measurement model is established (Table 2). Fornell and Larcker (1981) postulate that for confirming convergent validity, the factor loading values should be greater than 0.50 for all items. A factor loading signifies the correlation between latent variable and its factor, and all factors loading should be statistically significant. Thus, Table 3 depicts that all SFLs are more than 0.50, with minimum value of 0.709. Consequently, it can be concluded that the discriminant validity of the model is established.

| 10010 01 1000 10000           |       |          |             |            |           |
|-------------------------------|-------|----------|-------------|------------|-----------|
| Latent                        | Items | Standard | Composite   | Cronbach's | Average   |
| Construct                     |       | Factor   | Reliability | Alpha      | Variance  |
|                               |       | Loading  | (CR)        |            | Extracted |
|                               |       | (SFL)    |             |            | (AVE)     |
|                               | EB1   | 0.813    |             |            | 0.601     |
|                               | EB2   | 0.754    |             |            |           |
| E                             | EB3   | 0.709    |             |            |           |
| Entrepreneurial               | EB4   | 0.747    | 0.765       | 0.741      |           |
| Bricolage                     | EB5   | 0.741    |             |            |           |
|                               | EB6   | 0.721    |             |            |           |
|                               | EB7   | 0.728    |             |            |           |
|                               | EB8   | 0.714    |             |            |           |
|                               | OA1   | 0.744    |             |            |           |
| Operational                   | OA2   | 0.791    | 0.702       | 0.765      | 0.623     |
| Agility                       | OA3   | 0.821    | 0.782       | 0.765      |           |
| 0,1                           | OA4   | 0.802    |             |            |           |
|                               | OA5   | 0.758    |             |            |           |
| <b>a</b> .                    | CA1   | 0.850    | 0.801       | 0.794      | 0.654     |
| Customer                      | CA2   | 0.784    |             |            |           |
| Agility                       | CA3   | 0.796    |             |            |           |
|                               | CA4   | 0.753    |             |            |           |
|                               | PA1   | 0.871    | 0.779       | 0.778      |           |
| Partnering                    | PA2   | 0.825    |             |            | 0.596     |
| Agility                       | PA3   | 0.713    |             |            |           |
|                               | PA4   | 0.734    |             |            |           |
|                               | OP1   | 0.709    |             | 0.736      | 0.621     |
| Organizational<br>Performance | OP2   | 0.827    |             |            |           |
|                               | OP3   | 0.866    | 0 7 4 9     |            |           |
|                               | OP4   | 0.741    | 0.742       |            |           |
|                               | OP5   | 0.734    |             |            |           |
|                               | OP6   | 0.764    |             |            |           |
| N                             | 300   |          |             |            |           |
| X <sup>2</sup> /df            | 2.035 |          |             |            |           |
| CMIN/DF                       | 2.146 |          |             |            |           |
| CFI                           | 0.921 |          |             |            |           |
| GFI                           | 0.842 |          |             |            |           |

Table 3: Test Results of Confirmatory Factor Analysis (CFA)

| NFI        | 0.901 |
|------------|-------|
| TLI        | 0.925 |
| RMSEA      | 0.074 |
| PNFI       | 0.644 |
| Sig- value | 0.000 |

#### Test Results of Confirmatory Factor Analysis (CFA)

Convergent validity of the measurement model was confirmed by using the Fornell and Larcker criterion. This Fornell and Larcker criterion confirms the uniqueness of all items of one construct from another (Hair et al., 2006) and for that again. As Fornell and Larcker (1981) directed, all correlations values of each latent constructs must be lower than the  $\sqrt{AVEs}$ . According to the information given in table 4 below, convergent validity is established.

|    | EB    | OA    | CA    | PA    | OP    |
|----|-------|-------|-------|-------|-------|
| EB | 0.677 |       |       |       |       |
| OA | 0.410 | 0.730 |       |       |       |
| CA | 0.572 | 0.546 | 0.722 |       |       |
| PA | 0.454 | 0.557 | 0.536 | 0.728 |       |
| OP | 0.478 | 0.671 | 0.635 | 0.624 | 0.790 |

Table 4: Discriminant Validity

### **Hypotheses testing**

To evaluate the hypotheses of the study, structural model assessment was employed in CB-SEM (AMOS). Statistical findings of the CB-SEM (AMOS) are presented in table 5 given below. Hypothesis 1 stated the relationship between EB and OP. The derived results denoted that this hypothesized relationship of EB-OP was positive and significant ( $\beta = 0.651$ , p < 0.05), H1 is supported. Hypothesis 2 expressed the relationship between EB and OA. As per the results, there is a positive and significant relationship between EB and OA ( $\beta = 0.542$ , p < 0.05), whilst supporting H<sub>2</sub>. Hypothesis 3, which hypothesized the relationship between OA and OP, was supported confirming a significant and positive relationship ( $\beta = 0.654$ , p < 0.05). Hypothesis 4 expressed the indirect effect of OA between EB and OP. The indirect effect (H<sub>4</sub>) marked a path coefficient of 0.365 indicating a p-value of 0.000 (p < 0.05) which is significant, hence the hypothesized mediation was also supported.

| There every point of a realing |          |       |                 |           |  |
|--------------------------------|----------|-------|-----------------|-----------|--|
| Hypotheses                     | Path     | β     | <i>p</i> -value | Remarks   |  |
| H1                             | EB-OP    | 0.651 | 0.000           | Supported |  |
| H2                             | EB-OA    | 0.542 | 0.000           | Supported |  |
| Н3                             | OA-OP    | 0.654 | 0.000           | Supported |  |
| H4                             | EB-OA-OP | 0.431 | 0.000           | Supported |  |

Table 5: Hypotheses Testing

#### Discussion

The overall purpose of this study was to identify the effect of organizational agility on the relationship between entrepreneurial bricolage and organizational performance. To achieve this purpose, the study attempts to address the research objectives. Based on the objectives of the study, the hypotheses were developed and tested. Accordingly, the first objective of the study was to identify the relationship between EB and OP, which was tested in H1. Findings of the study affirm that EB has a positive and significant relationship with OP. This confirms that the organizations who have their own plans to survive with the resources at hand rather than going for additional resources can escalate their performance. This result also aligns with the previous studies, which have demonstrated that the effective utilization of existing resources enhances organizational performance (Anand & Dewi, 2022; Senyard et al., 2020). The second objective of the study was to identify the relationship between EB and OA. This relationship was discussed in H2. Study findings confirm a significant and positive relationship between EB and OA, suggesting the organizations to enhance their capabilities to use existing resources may lead to enhance their capabilities to face the environmental dynamics successfully. These results are also consistent with the previous research findings, which have also confirmed the positive and significant effect of EB on OA (Huang & Chen, 2023; Zhou & Wu, 2021). H3 discussed the relationship between OA and OP. Statistical findings of the study given in table 5 reveal that there is a positive and significant relationship between OA and OP. These finding claims that organizations with higher capability to be agile are better capable of pursuing opportunities and threats, responding to market changes, and preceding to excellent level of performance. Teece et al., (2022) also confirms the similar kind of relationship between OA and OP in their study of "Dynamic capabilities, organizational agility, and the role of managerial judgment". To address the fourth objective of the study, it was developed the H4. H4 hypothesized the mediating effect of OA on the relationship between EB and OP. As per the information presented in table 5, it confirms that there is a partial mediation of OA on the association between EB and OP. As such, study results confirm that organizations can gain better performance outcomes when they are successfully leveraging their existing resources and agile capabilities of firms stimulate the ability to get more performance outcomes and competitive advantages. Similar studies have also shown that dynamic capabilities of firms accelerate their ability to gain superior level of performance in leveraging resources at hand (Li et al., 2023; Zahra & Das, 2022).

#### Conclusion

This study explores how entrepreneurial bricolage, a strategy that allows firms to use their limited resources effectively and innovatively, can lead to superior performance by enhancing organizational agility in response to environmental dynamics and market volatility. First, the findings of the study stress that firms who are practicing bricolage can overcome resources related issues by managing and repurposing available resources, which in turn improves innovative abilities. Innovative ability of firms enhances the performance outcomes of firms, especially in dynamic and resource constrained environments. Consequently, the study concludes that entrepreneurial bricolage has a direct, positive and significant relationship with organizational performance. Second, the study focuses on how entrepreneurial bricolage enables firms to achieve higher levels of agility, especially in SMEs facing constraints with limited resources. The study affirms that leveraging and reconfiguring limited resources creatively and innovatively, organizations can enhance their ability to respond to sudden market changes, which is a key attribute of organizational agility. Further, the organizations practice bricolage ensure the ability to adapt in volatile market conditions, increasing the agility through innovations. Through empirical evidence, the study concludes that positive and significant relationship between entrepreneurial bricolage and organizational agility. Third, the study focuses on how organizational ability to respond in market changes, as a one of the mains aspects of dynamic capabilities of the firm, can enhance organizational performance. Organizations with higher levels of agility can successfully equip and pursue opportunities available in the marketplace, face for threats, respond to sudden market shifts, and resource reconfiguration, aiming to improve the organizational performance. The study confirms that organizational agility increases the short-term flexibility and long-term performance facilitating firms to be more innovative, competitive, and manage market volatilities effectively and efficiently. Empirically validated results of the study confirm that organizational agility is positively and significantly correlated with the organizational performance. Fourth, the study examines how organizational agility mediates the relationship between entrepreneurial bricolage and organizational performance. Firms following strategies to leverage their resources have excellent ability in bricolage. Innovative abilities of firms to leverage their limited resources can fostering improved performance outcomes. However, the organizations who can leverage their resource constraints successfully amidst the dynamic and changing market conditions significantly enhance organizational performance. Organizational agility enables firms respond to sudden market changes and volatility being more flexible, thereby performing as a mediator amplifies the direct effect of bricolage on performance. Thus, the study empirically validates the mediating role of organizational agility in the link between bricolage and performance.

#### **Implications and Future Research**

In strategic sensemaking, entrepreneurial bricolage identifies as a key strategic approach that firms can introduce to improvise their capabilities through successful innovation under the limited resources. Every organization is facing various issues in managing their businesses due to lack of resources. Therefore, bricolage supports firms to successfully leverage and reconfigure their existing resources to achieve short term and long-term performance outcomes. Bricolage facilitates organizations to successfully adopt strategies in limited resource environments and fostering innovations and enhance organizational agility. This will ensure market changes and volatilities to gain competitive advantage and growth. Thus, owner managers in organizations can rethink how to apply bricolage into their strategic management approaches and boost performance outcomes. Additionally, the current study provides robust understanding for policy makers, practitioners and owner managers to invest in improving agile processes and structures, since agility can boost organizational creativity to use limited resources in volatile markets. To get superior performance targets, firms need to understand and develop strategies in both bricolage and agility simultaneously. This dual emphasis preserves the firm's flexibility, permitting it to navigate market instability and boost overall performance. As many SMEs are facing various kinds of issues in managing resources in their business processes, they can adopt entrepreneurial bricolage to overcome resource restraints. By highlighting agility, SMEs can realize performance advances comparable to large scale organizations, placing themselves more effectively in competitive markets. Future researchers can employ new research works on longitudinal studies rather following cross-sectional research methods to overcome the inherent limitations in cross-sectional studies. Therefore, examination of a long-term effect of study variables is paramount important to get more robust findings in future. Researchers can investigate the association between bricolage, agility and performance in different industries to get more understanding how they respond to industry specific matters. For example, firms in high tech industries may face for sever market volatilities and may experience various performance outcomes than more stable industries. Additionally, future research could also examine how environmental specific features, such as changes in regulatory frameworks, technological differences, and crises etc., moderate the link between bricolage, agility, and performance.

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