# Entrepreneurial Bricolage in SMEs: Exploring the Interplay of Divergent Thinking, Self-Efficacy, and Gender Dynamics

**D.C.H. De Silva[1], M.H.D.N. Perera[2] , H.N.R. Gunawardane[3]**

*Department of Entrepreneurship, Faculty of Management Studies and Commerce, University of Sri Jayewardenepura, Sri Lanka*

chathini@sjp.ac.lk[1], dhanukaprr@sjp.ac.lk[2], nadunirg@sjp.ac.lk[3]

## Abstract

*This study examines the relationships between divergent thinking, self-efficacy, and entrepreneurial bricolage in Small and Medium-sized Enterprises (SMEs), with a particular focus on the moderating role of gender. The research addresses a critical gap in understanding how cognitive processes interact with demographic factors to influence resourceful entrepreneurial behaviors, particularly in developing economy contexts where SMEs face persistent resource constraints. Adopting a quantitative approach, data were collected from 352 SME owners in Sri Lanka and analyzed using Partial Least Squares Structural Equation Modelling (PLS-SEM). The findings reveal that both divergent thinking and self-efficacy have significant positive effects on entrepreneurial bricolage, while gender does not significantly moderate these relationships. These results underscore the centrality of creativity and confidence in fostering adaptive resource utilization, regardless of gender.*

*This study makes three key contributions. First, it extends entrepreneurial bricolage theory by empirically linking two core cognitive capabilities—divergent thinking and self-efficacy—to bricolage behavior. Second, it addresses a methodological and contextual gap by applying advanced structural modelling techniques to SMEs in a developing economy, offering evidence from a setting where bricolage is a strategic necessity. Third, it enriches gender and entrepreneurship literature by empirically testing the moderating role of gender, clarifying its limited influence in this context. The findings provide actionable insights for policymakers, entrepreneurship trainers, and SME support organizations to design interventions that cultivate creativity and*

*self-belief among entrepreneurs, ultimately enhancing SME resilience and sustainability.*

**Keywords:** *Entrepreneurial Bricolage, SMEs, Self-Efficacy, Gender, Divergent Thinking*

## 1. Introduction

This study focuses on understanding the high failure rates of Small and Medium-sized Enterprises (SMEs) and the role that cognitive and demographic factors play in this context. It aims to bridge the gap in knowledge regarding the influence of divergent thinking, self-efficacy, and gender on entrepreneurial success, particularly in the realm of entrepreneurial bricolage.

SMEs are widely recognized as the backbone of the global economy, contributing significantly to job creation and economic growth (Acs & Audretsch, 2003). However, they face daunting challenges, with a substantial number failing within the first few years of operation (Aldrich & Martinez, 2001). This high failure rate is often attributed to a range of factors, including but not limited to financial constraints, market competition, and managerial inexperience. Understanding the underlying causes of these failures is crucial for developing strategies to support SME sustainability and growth.

Divergent thinking and self-efficacy are two cognitive factors that play a critical role in entrepreneurial success. Divergent thinking, which involves the ability to generate multiple creative solutions to a problem, is essential in the entrepreneurial process, especially in the face of resource constraints and uncertain market conditions (Runco, 2022). Self-efficacy, defined as the belief in one's ability to succeed in specific situations (Bandura, 1997), influences an entrepreneur's decision-making, risk-taking, and persistence, all of which are vital for navigating the challenges of starting and running a business.

Entrepreneurial bricolage, the practice of innovatively “making do” with limited resources is a critical strategy for SMEs operating under resource constraints (Baker & Nelson, 2005). Recent conceptual work further highlights bricolage’s importance in

adaptive contexts; for instance, Kumar and Stobdan (2024) examine how bricolage enables organizations to navigate uncertainty in resource-constrained environments), demonstrating its role in strategic flexibility. However, while the broader significance of bricolage is increasingly acknowledged, the influence of individual cognitive factors—such as divergent thinking and self-efficacy—on entrepreneurial bricolage behavior remains underexplored, indicating an important gap in current entrepreneurship research.

Gender is increasingly recognized as a critical factor in entrepreneurship. Studies have shown that male and female entrepreneurs often have different experiences and face different challenges in their entrepreneurial journeys (Brush et al., 2020). These differences may affect how entrepreneurs engage in divergent thinking, develop self-efficacy, and apply bricolage in their ventures. Understanding the moderating role of gender in these relationships is essential for developing gender-sensitive policies and support mechanisms for entrepreneurs.

This study is necessitated by the need to understand the complex interplay between these cognitive and demographic factors and how they impact the success and sustainability of SMEs. By exploring the relationships between divergent thinking, self-efficacy, entrepreneurial bricolage, and the moderating role of gender, this research aims to contribute to the development of more effective support systems for SMEs. This understanding is crucial for reducing failure rates and fostering a more robust and inclusive entrepreneurial ecosystem.

Entrepreneurship, particularly within the realm of Small and Medium-sized Enterprises (SMEs), plays a pivotal role in global economic development. However, SMEs face a high failure rate, with studies indicating that a significant proportion of these businesses do not survive beyond their initial years (Aldrich & Martinez, 2001). One of the critical factors contributing to this high failure rate is the lack of understanding of the cognitive and demographic factors influencing entrepreneurial success.

Divergent thinking and self-efficacy are essential cognitive processes in entrepreneurship. Divergent thinking, which involves the ability to generate creative and innovative ideas, is crucial for problem-solving and opportunity identification in

the challenging and resource-constrained environments in which many SMEs operate (Runco, 2022). Self-efficacy, or the belief in one's capabilities to execute tasks and achieve goals, significantly impacts entrepreneurial motivation and resilience (Bandura, 1997). Despite their importance, the specific impacts of these cognitive factors on entrepreneurial bricolage – the creative recombination of available resources for new purposes – are not fully understood.

Entrepreneurial bricolage refers to the capacity of entrepreneurs to creatively use limited resources to innovate and survive. Although divergent thinking and self-efficacy are known to drive such resourceful behavior, their combined impact and the role of gender in modulating this effect has largely been overlooked.

This research is timely and highly relevant in the Sri Lankan context. SMEs in Sri Lanka form the backbone of the economy, generating employment, fostering regional development, and contributing significantly to GDP. Yet, these enterprises face persistent challenges—capital constraints, limited managerial capacity, and market volatility that contribute to high failure and discontinuation rates. Understanding how cognitive factors such as creative thinking and confidence enhance bricolage is therefore particularly pertinent to improving SME survivability and performance in Sri Lanka.

Hence, this study has two main objectives:

1. To investigate the relationships between divergent thinking, self-efficacy, and entrepreneurial bricolage among Sri Lankan SME owners.
2. To examine whether gender moderates the effects of divergent thinking and self-efficacy on entrepreneurial bricolage.

By pinpointing how cognitive capabilities and gender dynamics influence bricolage, this research aims to inform targeted interventions—for example, training programs that enhance creative confidence—designed to support entrepreneurial persistence and economic resilience in Sri Lanka's SME sector.

This study makes three key contributions to the entrepreneurship literature. First, it extends entrepreneurial bricolage theory by empirically examining how two core

cognitive capabilities, divergent thinking and self-efficacy, drive bricolage behavior, a relationship that has received limited empirical attention in SME contexts. Second, it addresses a methodological and contextual gap by applying Partial Least Squares Structural Equation Modelling (PLS-SEM) to primary survey data from SMEs in Sri Lanka, a developing economy where resource constraints make bricolage a critical survival strategy. Third, it enriches gender and entrepreneurship scholarship by testing the moderating role of gender in these relationships, providing empirical evidence of its limited influence in this setting. These contributions not only advance theoretical understanding but also offer actionable guidance for policymakers, entrepreneurship trainers, and SME support organizations seeking to cultivate creativity and self-belief among entrepreneurs, ultimately enhancing SME resilience and sustainability.

## 2. Literature review

### *2.1. Theoretical Review*

#### *2.1.1 Entrepreneurial Bricolage Theory*

The theory of entrepreneurial bricolage posits that entrepreneurs often operate under resource constraints and must creatively recombine available resources to innovate and solve problems. Baker and Nelson (2005) emphasize the importance of resourcefulness and improvisation in this process, suggesting that bricolage can lead to unique and innovative solutions.

#### *2.1.2 Cognitive-Behavioral Theory*

In the realm of entrepreneurship research, cognitive-behavioral theory offers a valuable lens for understanding the intricate relationship between an individual's thoughts, behaviors, and emotions. This theoretical framework posits that the cognitive processes of entrepreneurs, encompassing their beliefs about personal capabilities and market dynamics, play a pivotal role in shaping their entrepreneurial intentions and behaviors (Baron, 2004). The theory underscores the significance of how entrepreneurs perceive their environment and themselves, suggesting that these perceptions critically influence their actions and the eventual outcomes of their entrepreneurial endeavors (Krueger, 2003).

*2.1.3 Self-Efficacy Theory*

The belief in one's own entrepreneurial abilities (self-efficacy) is a key cognitive aspect that has been shown to impact entrepreneurial intentions and actions significantly. Entrepreneurs with higher self-efficacy are more likely to embark on entrepreneurial ventures and persist in the face of challenges (Bandura, 1997). Additionally, the way entrepreneurs interpret market opportunities and challenges also shapes their decision-making processes and strategic choices, ultimately affecting the success and growth of their ventures (Mitchell et al., 2007).

Therefore, cognitive-behavioral theory provides a comprehensive framework for analyzing how the internal cognitive world of an entrepreneur interacts with external actions, leading to a deeper understanding of the entrepreneurial process.

Self-efficacy theory, as articulated by Bandura, plays a crucial role in understanding entrepreneurial behavior. This theory asserts that an individual's belief in their ability to execute specific tasks effectively is a key determinant of their actions and subsequent outcomes (Bandura, 1997). Within the context of entrepreneurship, this concept of self-efficacy becomes particularly salient. It is posited that an entrepreneur's self-efficacy, or their confidence in their entrepreneurial capabilities, significantly influences their willingness to engage in risk-taking and to embark on entrepreneurial ventures (Chen, Greene, & Crick, 1998).

The impact of self-efficacy on entrepreneurship is multifaceted. Entrepreneurs with high self-efficacy are more likely to perceive challenging business situations as opportunities rather than threats, and they tend to set higher goals and remain committed to these goals even in the face of adversity (Zhao et al., 2005). This heightened sense of confidence in their abilities enables them to navigate the uncertainties and inherent risks of entrepreneurial activities more effectively (Boyd & Vozikis, 1994).

Moreover, self-efficacy influences not only the decision to initiate a venture but also the persistence and resilience of entrepreneurs throughout the entrepreneurial journey. Entrepreneurs with strong self-efficacy are more likely to persevere in their efforts

despite setbacks and are often more successful in securing funding and other resources critical for venture success (Markman et al., 2002).

In summary, self-efficacy theory provides a valuable framework for understanding the psychological underpinnings of entrepreneurial behavior, emphasizing the role of personal beliefs in capability as a driver of entrepreneurial action and success.

**Resource Integration and Entrepreneurship:** Entrepreneurial bricolage is closely tied to the idea of resource integration. Entrepreneurs often operate in environments where resources are scarce or unavailable. Bricolage allows them to creatively recombine and repurpose existing resources to address new challenges or seize opportunities. For instance, Fan et al. (2019) explored the relationships among entrepreneurship, entrepreneurial ability, bricolage, and the innovative business models of SMEs, emphasizing the role of resource integration in the process.

**Bricolage and Business Model Innovation:** Bricolage can lead to innovative business models. Entrepreneurs who practice bricolage are not just solving immediate problems; they are also rethinking how businesses can operate. Hou et al. (2022) highlighted the trickle-down effects of entrepreneurial bricolage on business model innovation, suggesting that bricolage can influence employee creativity and lead to innovative business models.

**Bricolage in Adverse Conditions:** Bricolage becomes especially crucial in adverse conditions, such as during crises or in challenging environments. For instance, Al-Bazaiah (2022) discussed the impact of entrepreneurial bricolage on the performance of e-commerce businesses, emphasizing how bricolage can help businesses overcome challenges like resource constraints.

**Cognitive Aspects and Environmental Dynamics:** The practice of bricolage is also influenced by cognitive abilities and environmental dynamics. Hou et al. (2022) explored how executive cognitive ability influences business model innovation through entrepreneurial bricolage, suggesting that cognitive ability and environmental dynamics play crucial roles in the bricolage process.

### *2.2 Empirical Review*

Research on how gender differences impact entrepreneurial intentions generally presents two trends. Most studies suggest that male students exhibit stronger entrepreneurial intentions compared to their female counterparts (Haus et al., 2013; Sánchez & Licciardello, 2012; Yordanova & Tarrazon, 2010). Further evidence from Reynolds et al. (2002) indicates that in the USA, men are twice as likely as women to be engaged in starting a new business. This is echoed by Kothari's (2013) study in India, which found that among 880 final-year graduating students, only 5% of female students versus 10% of male students planned to pursue entrepreneurship. Similar disparities are visible in managerial domains. For instance, Allen et al. (2008) reported that the number of men initiating businesses is nearly double that of women. Gendered differences in leadership styles further illustrate this point: while women entrepreneurs tend to be more collaborative and inclusive, men often display more autocratic tendencies. Such differences can shape organizational strategies and outcomes. For example, Eagly and Johnson (1990) found that women were more likely to adopt democratic or participative leadership styles. Gender may also influence risk tolerance, with evidence suggesting that women tend to be more risk-averse than men, a factor that can significantly impact entrepreneurial ventures, investment decisions, and growth strategies (Byrnes et al., 1999).

However, other studies argue that gender does not significantly influence entrepreneurial intentions or activities. The relationship between gender and entrepreneurship remains contested. A critical review by Marlow and McAdam (2013) suggests that the influence of gender on entrepreneurial activity may be overstated. Although there are observable differences in the types of businesses initiated by men and women, the core intentions and processes driving entrepreneurship appear less dependent on gender than previously assumed. Similarly, Langowitz and Minniti (2007) found minimal differences between men and women regarding perceptions of entrepreneurial opportunities and self-confidence in business initiation, thereby challenging the dominant assumption that gender plays a decisive role in shaping entrepreneurial intentions.

Empirical evidence has also highlighted the role of cognitive abilities, particularly divergent thinking, in entrepreneurship. Divergent thinking fosters creativity and enables the generation of novel solutions—capabilities that are essential for entrepreneurial innovation (Runco, 2022). At the same time, gender disparities persist, with women often encountering unique barriers such as limited access to venture capital and restricted networking opportunities, both of which significantly influence entrepreneurial outcomes (Brush et al., 2020; Howell & Nanda, 2019).

Building on these insights, recent research has reinforced the importance of self-efficacy and bricolage in driving entrepreneurial outcomes, especially within resource-constrained environments. Jyoti et al. (2025) demonstrate that women entrepreneurs with higher levels of self-efficacy are more likely to engage in entrepreneurial bricolage, creatively leveraging limited resources to pursue sustainable business practices. Their study further highlights the moderating role of attitudinal factors in strengthening the bricolage–sustainability link, offering empirical evidence that psychological traits and behavioral strategies jointly shape entrepreneurial success. This supports the current study's model by underscoring the interplay of self-efficacy, divergent thinking, and gender dynamics as critical mechanisms influencing SME performance.

Overall, the literature indicates that self-efficacy consistently emerges as a pivotal factor in entrepreneurship. Entrepreneurs with high self-efficacy demonstrate greater confidence in their abilities, are more willing to take risks, and show persistence in the face of challenges, ultimately increasing their likelihood of venture success.

### *2.3 Research Gap*

Despite the valuable insights from prior studies, several key gaps remain:

1. Limited empirical testing of the *combined effects* of divergent thinking and self-efficacy on entrepreneurial bricolage.
2. Scarce evidence from developing economy SME contexts, where resource scarcity heightens the relevance of bricolage.

3. The moderating role of gender in the relationship between cognitive factors and entrepreneurial bricolage remains underexplored, despite gendered differences in entrepreneurial experiences.

Addressing these gaps will advance theoretical understanding of entrepreneurial bricolage and provide practical insights for designing SME support strategies that foster creativity, self-belief, and inclusivity.

### *2.4 Conceptual Framework and Hypotheses Development*

The capacity for divergent thinking, defined by its facilitation of varied and imaginative idea generation, plays a pivotal role in entrepreneurial achievement, as identified in studies by Runco and Mraz (1992). Entrepreneurs regularly encounter intricate and unforeseeable problems, necessitating inventive resolutions. Divergent thinking empowers individuals to consider non-traditional methods, enhancing the impromptu essence intrinsic to entrepreneurial resourcefulness, as discussed by Baker and Nelson (2005).

Accordingly, the first hypothesis is developed as,

**H1: There is a relationship between Divergent Thinking and Entrepreneurial Bricolage**

The concept of self-efficacy, which refers to an individual's confidence in their capability to execute tasks, is frequently correlated with entrepreneurial activities, as evidenced in Bandura (1977). A strong sense of self-efficacy is connected with a greater propensity to undertake difficult tasks and to persevere against challenges, which are vital elements of entrepreneurial resourcefulness, as outlined by Baker and Nelson (2005). Studies, including those by An et al. (2018), indicate that entrepreneurs possessing high self-efficacy tend to be more adept at resourceful problem-solving and successfully managing the uncertainties that are characteristic of entrepreneurial endeavors. Accordingly, the second hypothesis is developed as,

**H2: There is a relationship between Self Efficacy and Entrepreneurial Bricolage**

Scholarly investigations into the differences in entrepreneurial behavior across genders have shown that the link between cognitive competencies, such as divergent thinking,

and entrepreneurial achievements may be gender-specific. This is highlighted in the research conducted by Jimenez and Fuentes (2016). Understanding how gender influences the impact of divergent thinking on entrepreneurial adaptability is crucial for a deeper insight into the factors that contribute to entrepreneurial success in both men and women. Accordingly, the third hypothesis is developed as,

**H3: Gender moderates the relationship between Divergent Thinking and Entrepreneurial Bricolage**

Differences in self-efficacy beliefs based on gender have been recorded, and these variations could affect the manner in which individuals tackle entrepreneurial challenges, as evidenced in studies by Jennings and McDougald (2007). Delving into the manner in which gender moderates the connection between self-efficacy and entrepreneurial resourcefulness is vital for identifying potential gender-specific routes to achieving entrepreneurial success. Thereby, the fourth hypothesis is developed as,

**H4: Gender moderates the relationship between Self Efficacy and Entrepreneurial Bricolage**

**Conceptual Framework**

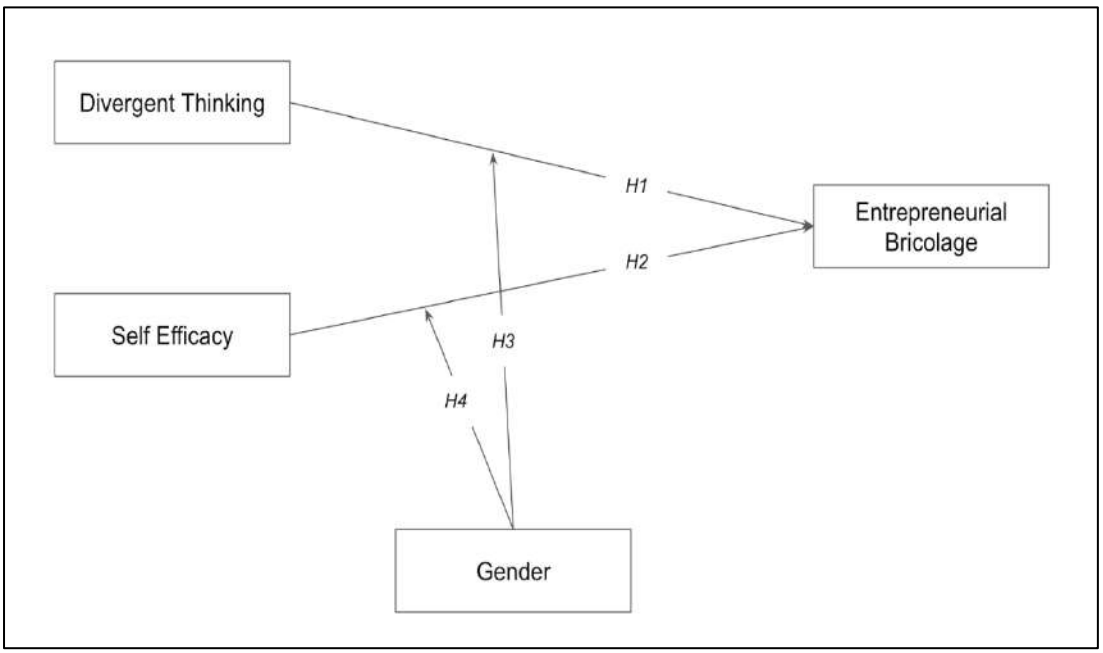


Figure 1: Conceptual Framework

*Source: Compiled by authors*

This research encompassed four hypotheses, grounded in the Cognitive Behavioural Theory, Self-Efficacy Theory and the Entrepreneurial Bricolage Theory, to explore the relationship among the Divergent Thinking, Self Efficacy and the Entrepreneurial Bricolage and to explore the moderating effect of gender on the above relationships. The research methodology aligned with positivism philosophy and adopted a deductive reasoning framework, as outlined by Bryman and Bell (2011). This study is characterized as cross-sectional, quantitative, and explanatory in nature, utilizing a survey strategy as detailed by Saunders et al. (2009).

## 3. Methodology

### *3.1 Research Design*

This study adopted a positivist research philosophy with a deductive reasoning approach to test hypothesised relationships between divergent thinking, self-efficacy, and entrepreneurial bricolage, as well as the moderating role of gender. The design was quantitative, cross-sectional, and explanatory, making use of a structured survey strategy. The unit of analysis was SME owners in Sri Lanka, an appropriate context given the centrality of bricolage in resource-constrained environments.

A total of 352 valid responses were collected through self-administered questionnaires, developed from validated measurement scales for divergent thinking, self-efficacy, and entrepreneurial bricolage. The sample was drawn using convenience sampling, with both online and in-person distribution methods employed to maximise reach. Data analysis was conducted using Partial Least Squares Structural Equation Modelling (PLS-SEM) via Smart PLS 4.0, a method suitable for complex models with relatively small to medium sample sizes. The analysis followed a two-step process, first testing the measurement model for reliability and validity, and then evaluating the structural model to test hypotheses.

This design ensured methodological rigour while remaining appropriate for the study's objectives, enabling robust testing of the theoretical model in a developing economy SME context.

### *3.2 Population and Sampling*

The target population comprised SME owners operating sole proprietorships registered in the Western Province of Sri Lanka. SMEs were selected as the unit of analysis due to their significant contribution to the economy and their frequent exposure to resource constraints, which make bricolage a relevant strategic behavior.

Given the absence of a comprehensive sampling frame for SMEs in Sri Lanka, convenience sampling was employed. A total of 400 questionnaires were distributed. Following data screening for completeness and validity, 352 usable responses were retained for analysis.

### *3.3 Operationalization of Variables*

| **Construct** | **Definition** | **Indicators / Dimensions** | **Measurement Source** | **Scale** |
|---|---|---|---|---|
| **Divergent Thinking (DT)** | The ability to generate multiple, novel solutions to a problem. | - Idea fluency (number of ideas)- Flexibility (variety of ideas)- Originality (novelty of ideas)- Elaboration (detail in ideas) | Runco (2022); Runco & Mraz (1992) | 5-point Likert |
| **Self-Efficacy (SE)** | An individual's belief in their ability to successfully perform | - Confidence in problem-solving- Confidence in seizing opportunities- | Bandura (1997); Chen et al. (1998) | 5-point Likert |

| | | | | |
|---|---|---|---|---|
| | entrepreneurial tasks. | Confidence in handling risks- Confidence in achieving goals | | |
| **Entrepreneurial Bricolage (EB)** | The practice of creatively recombining and leveraging available resources to address challenges and pursue opportunities. | - Making do with available resources- Combining resources for new purposes- Resource improvisation under constraints- Creating value from limited means | Baker & Nelson (2005); An et al. (2018) | 5-point Likert |
| **Gender (G)** | Biological sex of the SME owner (used as moderator). | - Male- Female | Self-reported | Categorical (Dummy coded: 0 = Female, 1 = Male) |

### *3.4 Measurement Instrument, Data Collection, and Analysis*

A structured, self-administered questionnaire was developed using validated scales for divergent thinking (Runco, 2022), self-efficacy (Bandura, 1997; Chen et al., 1998), and entrepreneurial bricolage (Baker & Nelson, 2005; An et al., 2018). All items were rated on a five-point Likert scale (1 = "Strongly Disagree" to 5 = "Strongly Agree"). A pilot

test with 30 SME owners confirmed clarity and reliability, leading to minor wording adjustments.

Data were collected both in person and online, with voluntary participation, assured anonymity, and adherence to ethical guidelines. Analysis was conducted using SPSS for preliminary reliability tests and SmartPLS 4.0 for hypothesis testing via Partial Least Squares Structural Equation Modelling (PLS-SEM). Following Hair et al. (2014), the analysis comprised measurement model assessment (reliability, convergent, and discriminant validity) and structural model assessment, including bootstrapped estimates of path coefficients, t-statistics, and p-values. PLS-SEM was selected for its suitability for predictive modelling and complex models with relatively small to medium sample sizes (Chin, 1998).

## 4. Data Analysis

The study concluded its data analysis with a final sample of 352 responses, obtained after a thorough data screening procedure. This refined dataset underwent a demographic analysis. In this analysis, the Partial Least Squares (PLS) method, which is based on principal component analysis for estimation, was employed. This technique is particularly effective in confirming predictive models, especially those involving small sample sizes, as noted by Chin (1998). SmartPLS 4.0 was the specific software utilized. PLS facilitates two types of measurement models: firstly, evaluating the measurement model, and secondly, assessing the structural model.

The composition of the sample was as follows: 50.9% were manufacturing Small and Medium-sized Enterprises (SMEs), and 49.1% were service SMEs. In terms of business age, the majority (29.5%) of SMEs were in the 1-2 year range, whereas a smaller proportion (20.5%) reported their business age as less than one year. Additionally, 22.4% of the SMEs fell into the 3-5 years category, and 27.6% had been in business for over five years. Regarding the gender distribution of the respondents, 74% were males and 26% were females, reflecting a significant gender disparity within the sample.

Regarding employee numbers, a significant majority (66.5%) of the SMEs had a workforce size ranging from 1 to 20 employees. Meanwhile, 21.6% of the respondents indicated they did not have any employees. Smaller fractions of the sample reported

having larger workforces, with 7.7% having 21-50 employees, 2.8% with 51-100 employees, and only 1.4% having more than 100 employees.

**Assessment of the Measurement Model**

The psychometric properties of the model were scrutinized using indicators such as internal consistency, along with convergent and discriminant validities. Hair et al. (2014) proposed that item loadings should be at least 0.5 for adequacy, leading to the removal of items below this threshold. Furthermore, each construct in the study demonstrated composite reliabilities exceeding the 0.7 threshold, as recommended by Fornell and Larcker (1981), thereby confirming the internal consistency of the data. They also suggested adherence to the average variance extracted (AVE) criterion for evaluating convergent validity. An AVE value of 0.50 is considered ideal, indicating that a latent variable accounts for over half of the variance of its indicators on average. The AVEs in this study, as displayed in Table 1, were satisfactory.

Discriminant validity is established when two criteria are met: the AVE value surpasses 0.50, and the square root of the AVEs exceeds all cross-correlations. As shown in Table 1, the AVE values ranged from 0.50 to 0.97, with no correlations between constructs exceeding the square root of the AVE (the principal diagonal element). In conclusion, the study's measures were psychometrically sound for the purposes of this research.

Table 4: Construct Reliability and Validity

| | **Cronbach's alpha** | **Composite reliability (rho_a)** | **Composite reliability (rho_c)** | **Average variance extracted (AVE)** |
|---|---|---|---|---|
| **Divergent Thinking** | 0.762 | 0.771 | 0.863 | 0.677 |
| **Entrepreneurial _Bricolage** | 0.919 | 0.923 | 0.934 | 0.639 |
| **Self Efficacy** | 0.844 | 0.850 | 0.889 | 0.617 |

**Assessment of the Structural Model**

Table 5: Path Coefficients

| | Path Coefficient | Sample mean (M) | Standard deviation (STDEV) | T statistics (\|O/STDEV\|) | P values |
|---|---|---|---|---|---|
| **Divergent Thinking -> Entrepreneurial _Bricolage** | 0.338 | 0.337 | 0.051 | 6.588 | 0.000 |
| **Gender -> Entrepreneurial _Bricolage** | -0.055 | -0.056 | 0.035 | 1.582 | 0.114 |
| **Self Efficacy -> Entrepreneurial _Bricolage** | 0.482 | 0.485 | 0.049 | 9.744 | 0.000 |
| **Gender x Divergent Thinking -> Entrepreneurial _Bricolage** | 0.015 | 0.012 | 0.050 | 0.293 | 0.769 |
| **Gender x Self Efficacy -> Entrepreneurial _Bricolage** | -0.005 | -0.002 | 0.047 | 0.104 | 0.917 |

The bootstrapping analysis conducted via Smart PLS provided insights into the moderating effect of gender on the relationships between Self-Efficacy, Divergent

Thinking, and Entrepreneurial Bricolage. The path from Divergent Thinking to Entrepreneurial Bricolage was positive and statistically significant ($\beta = 0.338$, $p < 0.001$), suggesting that individuals with higher levels of divergent thinking are more likely to engage in entrepreneurial bricolage. The stability of this effect is reinforced by a high T statistic ($T = 6.588$) and a sample mean ($M = 0.337$) closely aligned with the original sample coefficient.

Contrastingly, gender did not demonstrate a significant direct effect on Entrepreneurial Bricolage ($\beta = -0.055$, $p = 0.114$), indicating that the likelihood of engaging in entrepreneurial bricolage is not dependent on gender when considered in isolation.

Self-Efficacy's contribution to Entrepreneurial Bricolage was strongly positive and significant ($\beta = 0.482$, $p < 0.001$), with a T statistic of 9.744, underscoring the robustness of this relationship across bootstrap samples.

However, the interaction effects of Gender with Divergent Thinking ($\beta = 0.015$, $p = 0.769$) and Gender with Self-Efficacy ($\beta = -0.005$, $p = 0.917$) on Entrepreneurial Bricolage were not significant. These findings indicate that the influence of Self-Efficacy and Divergent Thinking on Entrepreneurial Bricolage does not differ substantially between genders.

Overall, the results highlight the pivotal roles of Self-Efficacy and Divergent Thinking in fostering Entrepreneurial Bricolage, while Gender does not appear to have a moderating influence on these dynamics. Accordingly, H1 and H2 were supported while H3 and H4 were not supported as shown in the Table 3.

Table 6: Analysis of Hypotheses

| **Hypothesis** | **Path** | **Path Coefficient** | **T Statistics** | **P Values** | **Decision** |
|---|---|---|---|---|---|
| **$H_1$** | DT -> EB | 0.338 | 6.588 | 0.000 | Supported |
| **$H_2$** | SE -> EB | 0.482 | 9.744 | 0.000 | Supported |
| **$H_3$** | DT*G -> EB | 0.015 | 0.293 | 0.769 | Not Supported |

| | | | | | | |
|---|---|---|---|---|---|---|
| **$H_4$** | SE*G EB | -> | -0.005 | 0.104 | 0.917 | Not Supported |

*Source:* Survey data.

## 5. Discussion of Findings

This study examined the relationships between divergent thinking, self-efficacy, and entrepreneurial bricolage, with gender as a potential moderating factor, in the context of SMEs in Sri Lanka. The results revealed that both divergent thinking and self-efficacy significantly and positively influenced entrepreneurial bricolage, supporting **H1** and **H2**. However, gender did not have a significant moderating effect on either relationship, leading to the rejection of **H3** and **H4**. These findings contribute to the literature by empirically validating the role of cognitive capabilities in fostering resourceful entrepreneurial behavior, while questioning the assumed moderating influence of gender in this context.

### *5.1 Cognitive Capabilities and Entrepreneurial Bricolage*

The results demonstrate that divergent thinking significantly enhances entrepreneurial bricolage. This finding supports prior research emphasising creativity and adaptability as critical components of entrepreneurial success, particularly in constrained environments (Baker & Nelson, 2005, 2022). Entrepreneurs who can generate multiple, non-traditional solutions are better positioned to improvise and leverage available resources, aligning with Fisher's (2012) assertion that creative problem-solving is a survival strategy in early-stage ventures.

Similarly, self-efficacy emerged as a strong predictor of entrepreneurial bricolage, reinforcing Bandura's (1997) proposition that belief in one's abilities drives persistence and proactive action. Entrepreneurs with higher self-efficacy are more likely to perceive constraints as challenges to be overcome rather than insurmountable barriers (Zhao et al., 2005). This aligns with Chen, Greene, and Crick's (1998) observation that entrepreneurial self-efficacy fosters both venture initiation and innovative action.

These results suggest that cognitive resources, creativity and confidence are critical enablers of bricolage, complementing tangible resources and shaping how entrepreneurs respond to environmental challenges.

### *5.2 Demographic Moderators in Bricolage*

Contrary to expectations, gender did not significantly moderate the relationships between either divergent thinking or self-efficacy and entrepreneurial bricolage. While some studies report gender-based differences in entrepreneurial intentions, leadership style, and risk-taking (Brush et al., 2020; Eagly & Johnson, 1990; Byrnes et al., 1999), other research finds minimal gender effects on core entrepreneurial capabilities (Langowitz & Minniti, 2007; Marlow & McAdam, 2013).

The absence of significant moderation effects in this study may be explained by contextual factors. In the resource-scarce environment of Sri Lankan SMEs, both male and female entrepreneurs may draw upon similar cognitive strategies to sustain their ventures. Cultural and economic constraints could also lead to convergence in entrepreneurial behavior, reducing the scope for gender-based variation in bricolage practices.

### *5.3 Theoretical Contributions*

This study contributes to entrepreneurial bricolage theory (Baker & Nelson, 2005) by empirically linking two cognitive capabilities—divergent thinking and self-efficacy—to bricolage in SMEs. It integrates cognitive-behavioral theory (Baron, 2004) and self-efficacy theory (Bandura, 1997) into the bricolage context, demonstrating that psychological resources can be as influential as material ones. Furthermore, the finding of no significant gender moderation adds nuance to gender and entrepreneurship literature, suggesting that cognitive determinants of bricolage may operate similarly across genders in certain developing economy contexts.

### *5.4 Practical Implications*

For policymakers and SME development agencies, these findings underscore the importance of enhancing creativity and self-confidence among entrepreneurs. Training programs should integrate divergent thinking exercises (Runco, 2022) and self-

efficacy-building interventions, such as mastery experiences, role modelling, and constructive feedback (Bandura, 1997). Given the lack of gender moderation, interventions can be designed to be inclusive and focus on cognitive skill enhancement across all entrepreneurs, rather than targeting one gender over the other.

### *5.5 Limitations and Future Research Directions*

This study is limited by its geographic focus on the Western Province of Sri Lanka and its gender imbalance (74% male, 26% female), which may affect generalizability. The cross-sectional design restricts causal inference. Future studies should adopt longitudinal designs, test the model across different cultural and economic settings, and ensure more balanced gender representation. Additionally, examining other demographic and contextual moderators—such as age, education, or industry type—may yield deeper insights into the cognitive drivers of entrepreneurial bricolage.

## 6. Conclusion

This study examined how divergent thinking and self-efficacy influence entrepreneurial bricolage, with gender as a potential moderating factor, using evidence from 352 SME owners in Sri Lanka. The findings confirm that both divergent thinking and self-efficacy significantly and positively affect entrepreneurial bricolage, while gender does not significantly moderate these relationships. These results underscore the critical role of cognitive resources in enabling entrepreneurs to creatively and confidently utilise available resources, particularly in resource-constrained environments.

Theoretical implications are threefold. First, the study extends the entrepreneurial bricolage theory (Baker & Nelson, 2005) by empirically demonstrating the importance of cognitive capabilities—creativity and self-belief—in driving bricolage behavior. Second, it integrates cognitive-behavioural theory (Baron, 2004) and self-efficacy theory (Bandura, 1997) into the SME bricolage context, showing that psychological resources can be as influential as material ones in entrepreneurial success. Third, it contributes to gender and entrepreneurship literature by providing empirical evidence that, in certain developing economy contexts, gender may not significantly alter the effects of cognitive capabilities on bricolage.

Practical implications are equally important. Policymakers, SME development agencies, and entrepreneurship educators should prioritise programs that cultivate both divergent thinking and self-efficacy. This can be achieved through creativity-focused training, problem-solving simulations, and interventions designed to build confidence through mastery experiences, role modelling, and constructive feedback. Given the lack of gender moderation in this study, such interventions should be inclusive and accessible to all entrepreneurs, ensuring that cognitive skill development is not confined to specific demographic groups. Strengthening these capabilities can enhance the resilience, adaptability, and sustainability of SMEs, which are vital to economic growth and job creation in developing economies.

The study is not without limitations. The sample was geographically limited to the Western Province of Sri Lanka and exhibited gender imbalance, which may constrain generalizability. The cross-sectional design also limits causal inference. Future research should explore these relationships in more diverse cultural and economic contexts, adopt longitudinal designs, and examine additional moderating variables such as age, education, and industry sector.

In conclusion, this research reinforces the idea that the entrepreneurial capacity to "make do" with available resources is not solely determined by what entrepreneurs possess materially, but also by how they think and believe in their ability to act. By fostering creativity and self-confidence among entrepreneurs, stakeholders can build a more resilient and innovative SME sector, capable of thriving even in environments of scarcity and uncertainty.

**References**

Acs, Z. J., & Audretsch, D. B. (2003). Handbook of Entrepreneurship Research: An Interdisciplinary Survey and Introduction. Springer.

Al-Bazaiah, S. A. I. (2022). Impact of Entrepreneurial Bricolage on Performance of E-Commerce: Case Study in Jordan. DOI: 10.56982/journalo.v1i01.22

Aldrich, H. E., & Martinez, M. A. (2001). Many are called, but few are chosen: An evolutionary perspective for the study of entrepreneurship. Entrepreneurship Theory and Practice, 25(4), 41-56.

Allen, N. J., Eby, L. T., O'Brien, K. E., & Lentz, E. (2008). The State of Mentoring Research: A Qualitative Review of Current Research Methods and Future Research Implications. Journal of Vocational Behavior, 73(3), 343-357. https://doi.org/10.1016/j.jvb.2007.08.004

An, W., Zhang, J., You, C., & Guo, Z. (2018). Entrepreneur's Creativity and Firm-Level Innovation Performance: Bricolage as a Mediator. Technology Analysis & Strategic Management, 30(7), 838-851. https://doi.org/10.1080/09537325.2017.1383979

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

Bandura, A. (1997). Self-efficacy: The exercise of control. W. H. Freeman.

Baron, R. A. (2004). The cognitive perspective: A valuable tool for answering entrepreneurship's basic "why" questions. Journal of Business Venturing, 19(2), 221-239.

Boyd, N. G., & Vozikis, G. S. (1994). The Influence of Self-Efficacy on the Development of Entrepreneurial Intentions and Actions. Entrepreneurship Theory and Practice, 18(4), 63-77. https://doi.org/10.1177/104225879401800404

Brush, C. G., Edelman, L. F., Manolova, T., & Welter, F. (2020). A gendered look at entrepreneurship ecosystems. Small Business Economics, 55(2), 393-408.

Brush, C., Greene, P., & Welter, F. (2020). The Diana project: a legacy for research on gender in entrepreneurship.

Bryman, A. & Bell, E. (2011). Business Research Methods. Oxford University Press.

Byrnes, J. P., Miller, D. C., & Schafer, W. D. (1999). Gender Differences in Risk Taking: A Meta-Analysis. Psychological Bulletin, 125(3), 367-383. https://doi.org/10.1037/0033-2909.125.3.367

Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? Journal of Business Venturing, 13(4), 295-316.

Chin, W. W. (1998). The Partial Least Squares Approach to Structural Equation Modeling. In G. A. Marcoulides (Ed.), Modern Methods for Business Research (pp. 295-336). Lawrence Erlbaum Associates.

Eagly, A. H., & Johnson, B. T. (1990). Gender and Leadership Style: A Meta-Analysis. Psychological Bulletin, 108(2), 233-256. https://doi.org/10.1037/0033-2909.108.2.233

Fan, W., Huang, K., & Chiang, P. Y. (2019). An Empirical Application of Entrepreneurial Bricolage Theory to Resource Integration Using Data from Small and Medium-Sized Enterprises in Taiwan. DOI: 10.30845/ijbss.v10n7p9

Fisher, G. (2012). Effectuation, causation, and bricolage: A behavioral comparison of emerging theories in entrepreneurship research. Entrepreneurship Theory and Practice, 36(5), 1019-1051.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. Journal of Marketing Research, 18(1), 39-50. https://doi.org/10.1177/002224378101800104

Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2014). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Sage Publications, Inc.

Haus, I., Steinmetz, H., Isidor, R., & Kabst, R. (2013). Gender Effects on Entrepreneurial Intention: A Meta-Analytical Structural Equation Model. International Journal of Gender and Entrepreneurship, 5(2), 130-156. https://doi.org/10.1108/17566261311328828

Hou, F., Qi, M. D., Su, Y., Tan, X., & Yang, B. (2022). Trickle-Down Effects of Entrepreneurial Bricolage and Business Model Innovation on Employee Creativity:

Evidence from Entrepreneurial Internet Firms in China. DOI: 10.3389/fpsyg.2021.801202

Howell, S. T., & Nanda, R. (2019). Networking Frictions in Venture Capital, and the Gender Gap in Entrepreneurship.

Jennings, J. E., & McDougald, M. S. (2007). Work-Family Interface Experiences and Coping Strategies: Implications for Entrepreneurship Research and Practice. Academy of Management Review, 32(3), 747-760. https://doi.org/10.5465/amr.2007.25275510

Jimenez, J. M. R., & Fuentes, M. D. M. F. (2016). Management Capabilities, Innovation and Gender Diversity in the Top Management Team: An Empirical Analysis in Technology-based SMEs. Business Research Quarterly, 107-121.

Kothari, C. R. (2013). Research Methodology: Methods and Techniques (3rd ed.). New Age International Publishers.

Krueger, N. F. (2003). The cognitive psychology of entrepreneurship. In Handbook of entrepreneurship research (pp. 105-140). Springer, Boston, MA.

Kumar, S., & Stobdan, J. (2024). *Optimization or bricolage? Overcoming resource constraints in global social entrepreneurship.* Asian Journal of Economics and Business, 5(1), 1–17. https://doi.org/10.47509/AJEB.2024.v05i01.01

Langowitz, N., & Minniti, M. (2007). The Entrepreneurial Propensity of Women. Entrepreneurship Theory and Practice, 31(3), 341-364. https://doi.org/10.1111/j.1540-6520.2007.00177.x

Makarova, L., & Kochukova, O. N. (2022). Divergent thinking of students: categorical and conceptual analysis.

Markman, G. D., Balkin, D. B., & Baron, R. A. (2002). Inventors and New Venture Formation: The Effects of General Self-Efficacy and Regretful Thinking. Entrepreneurship Theory and Practice, 27(2), 149-165. https://doi.org/10.1111/1540-8520.00005

Marlow, S., & McAdam, M. (2013). Gender and Entrepreneurship: Advancing Debate and Challenging Myths; Exploring the Mystery of the Under-Performing Female

Entrepreneur. International Journal of Entrepreneurial Behavior & Research, 19(1), 114-124.

Mitchell, R. K., Busenitz, L., Lant, T., McDougall, P. P., Morse, E. A., & Smith, J. B. (2007). The central question in entrepreneurial cognition research 2007. Entrepreneurship Theory and Practice, 31(1), 1-27.

Park, JH., Seo, R. A contingent value of bricolage strategy on SMEs' organizational resilience: lessons from the COVID-19 pandemic. Humanit Soc Sci Commun 11, 263 (2024). https://doi.org/10.1057/s41599-024-02771-6

Reynolds, P. D., Camp, S. M., Bygrave, W. D., Autio, E., & Hay, M. (2002). Global Entrepreneurship Monitor: 2001 Executive Report. Babson College and London Business School. https://www.gemconsortium.org/report/47116

Runco, M. (2022). Positive Creativity and the Intentions, Discretion, Problem-finding, and Divergent Thinking That Support It Can Be Encouraged in the Classroom.

Runco, M. A. (2022). Divergent Thinking and Creative Potential. Perspectives on Creativity Research.

Runco, M., & Mraz, W. (1992). Scoring Divergent Thinking Tests Using Total Ideational Output and a Creativity Index. Educational and Psychological Measurement, Inc., 52(1), 213-221. https://doi.org/10.1177/001316449205200126

Sánchez, F., & Licciardello, O. (2012). Gender Differences and Attitudes in Social and Educational Contexts: Empirical Evidence and Theoretical Reviews. Procedia - Social and Behavioral Sciences, 46, 1827-1831. https://doi.org/10.1016/j.sbspro.2012.05.387

Saunders, M., Lewis, P., & Thornhill, A. (2009). Research Methods for Business Students. New York: Pearson.

Tsilika, T., Kakouris, A., Apostolopoulos, N., & Dermatis, Z. (2020). Entrepreneurial bricolage in the aftermath of a shock. Insights from Greek SMEs. Link.

Yordanova, D. I., & Tarrazon, M. A. (2010). Gender Differences in Entrepreneurial Intentions: Evidence from Bulgaria. Journal of Developmental Entrepreneurship, 15(3), 245-261. https://doi.org/10.1142/S1084946710001593

Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. Journal of Applied Psychology, 90(6), 1265-1272.