

“Soft skills in action: Enhancing entrepreneurial growth through commitment and bricolage strategies”

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SOFT SKILLS IN ACTION: ENHANCING ENTREPRENEURIAL GROWTH THROUGH COMMITMENT AND BRICOLAGE STRATEGIES

Abstract

Limited resources have always been critical for the sustainability, growth, and development of micro and small enterprises. Understanding how the available limited resources can be best utilized during adverse conditions seems essential. Accordingly, this study attempts to understand key factors enhancing entrepreneurial bricolage (EB) among micro and small entrepreneurs, leading to better growth aspirations (GA). The study gathered a sample of 280 micro and small entrepreneurs from December 2024 to January 2025 through online and in-person visits to their business locations. Data were analyzed with the help of partial least square-structural equation modeling (PLS-SEM). The study has reported that commitment (COM) and soft skills development (SSD) are positively and significantly correlated with EB, and EB positively and significantly influences GA. Furthermore, EB mediates the relationship between COM, SSD, and GA. However, COM reveals no direct connection with GA, but SSD reports a positive connection with GA. The study provides theoretical and practical implications for policymakers, stakeholders, and academic researchers.

Keywords

growth, micro and small enterprises, adverse conditions, entrepreneurs

JEL Classification

M19, M20

INTRODUCTION

Limited resources and poor infrastructure have affected business operations across all sectors, including micro and small-sized enterprises (MSEs) (Linna, 2013; Simba et al., 2020). MSEs, despite their effective role in creating employment, enhancing economic growth, distributing income, mitigating poverty, and empowering people (Alshebami, 2024; Hooi et al., 2016; Lobaton, 2023), continue to suffer from instability, disasters, conflicts (Shafi et al., 2020), and the limited resources such as financial, physical, technological, human and other resources limiting their operation and growth. Limited resources result in slow or no development of new products and gaining a competitive advantage (Senyard et al., 2009; Shepherd et al., 2000; Wang et al., 2021).

In this vein, bricolage acts as an effective mechanism for business development and growth; it allows entrepreneurs to use different types of skills innovatively to ensure maximum benefits from these resources to solve problems, seize and discover business opportunities, and develop innovations in the form of new services (Baker & Nelson, 2005). EB is the behavior practiced by an individual to effectively and resourcefully use limited available resources to solve an existing problem or manage specific challenges innovatively (Hooi et al., 2016; Senyard et al., 2014). Enterprises practicing bricolage tend to create



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unique and distinctive resource environments, resulting in better business growth (Baker & Nelson, 2005). Practicing bricolage requires different skills and abilities to ensure the business's survival in a resource-constrained environment.

Specifically, skills such as problem-solving, critical thinking, communication, ethics, teamwork, and leadership have always been considered key factors contributing to better productivity and competitiveness in business as well as to the creation of job opportunities and the improvement of the economic growth (Ngang et al., 2015; Tang, 2019; Tem et al., 2020). Entrepreneurs with better skills can better understand their business situations and solve the problems they face in their businesses (Tem et al., 2020). Capacity-building and training programs can assist entrepreneurs in developing solid management skills, adaptability, innovation, adequate planning, and resilience-building (Anjorin et al., 2024). In short, the growth, development, and success of MSEs may require entrepreneurs to develop specific necessary skills, such as being innovative and adaptive and making the right decisions about resource utilization to develop innovative solutions (Gundry et al., 2011; Hooi et al., 2016). This, in turn, will enhance their willingness to pursue further growth aspirations.

EB behavior also requires entrepreneurs to be committed and attentive to practice bricolage effectively in their businesses (Senyard et al., 2013). In other words, once micro and small entrepreneurs develop a high focus and attentiveness, they will have better access to and better utilize their resources. They can also strengthen their understanding of these resources and combine them to achieve better results. Commitment, in general, leads to better persistence, a higher level of loyalty to the business, and better innovation (Senyard et al., 2013). Commitment also leads to better entrepreneurs' performance, particularly affective performance (Tasnim et al., 2014). The previous literature has found a limited understanding of the relationship between commitment and bricolage behavior (Senyard et al., 2013). Most of the previous literature has focused on the interaction between commitment and entrepreneurial intention, not on the effort spent during the startup process of a business (Tasnim et al., 2014) or on growth aspirations. For that, one may claim that commitment and persistence in business increase entrepreneurs' confidence levels, which drives plans for growth aspirations and long-term business persistence (Valéau et al., 2024).

EB has become a significant theoretical tool in entrepreneurship (Li et al., 2024). It is made up of three aspects, namely resource reconstruction, resources at hand, and resource compromising (Li et al., 2024; Wang et al., 2021). EB is considered an alternative strategic choice for entrepreneurs to use when resources are limited for business (Wang et al., 2021). Still, despite the positive role of bricolage, less attention has been paid to its interaction with commitment (Senyard et al., 2013; Tasnim et al., 2013), especially in the context of local entrepreneurs in emerging contexts. Bricolage is vital for MSEs because they primarily operate in unstable situations with limited resources; therefore, bricolage helps them innovate accordingly. Consequently, there have been calls to investigate its predictors (Simba et al., 2020). Understanding the key EB factors allows one to make the most of factors such as soft skills and commitment, which in turn leads to better business opportunities to grow and aspire.

This study is a response to the call to investigate how EB interacts with factors classified as intangible assets, such as soft skills and commitment, and how EB enhances GA among micro and small businesses in Yemen, a country with conflicts and instability. Accordingly, this research makes a novel contribution to the MSE sector in the context of the study. It first focuses on MSEs, an industry that has always been ignored in the literature. Second, it offers a better understanding of the role of bricolage in GA and how SSD and COM contribute to this process. This research confirms the applicability of EB theory in the context of the study in enhancing GA among micro and small entrepreneurs. Also, it connects with the theory of resource-based view via linking SSD and COM with EB. The survey findings provide policymakers, stakeholders, and researchers with significant theoretical and practical implications for enhancing EB practices among micro and small entrepreneurs. This study is organized as follows.

Following the introduction, the context of the study, theoretical foundations, and hypothesis development are presented. Then, the research methodology, findings, discussion, and conclusion follow.

This study attempts to understand key factors enhancing entrepreneurial bricolage (EB) among micro and small entrepreneurs, leading to better growth aspirations (GA). It specifically aims to examine the influence of Commitment (COM) and Soft Skills Development (SSD) on enhancing Entrepreneurial Bricolage (EB) and Growth Aspiration among micro and small entrepreneurs.

1. LITERATURE REVIEW AND HYPOTHESES

1.1. Theoretical background

This study is grounded in entrepreneurial bricolage theory, which focuses on how entrepreneurs creatively and resourcefully use limited resources to seize available business opportunities and overcome business challenges (Baker & Nelson, 2005). This theory assumes entrepreneurs use their limited resources effectively and innovatively to solve problems and seize available business opportunities. Entrepreneurs who adopt EB practicing behavior tend to thrive in unique and idiosyncratic resource environments, resulting in the development of competitive advantage. Hence, this theory is considered one of the key theories that help create innovations for existing solutions allowing business continuity and growth (Hooi et al., 2016; Senyard et al., 2014). Accordingly, this study argues that both COM and SSD serve as drivers for EB and EB, leading to better GA. In other words, when micro and small entrepreneurs are highly committed and persistent toward their businesses and activities, they tend to develop more remarkable persistence that helps them sustain and deal with challenges and remain motivated to create innovative solutions for existing problems, keeps entrepreneurs focused and directed with a clear vision toward their goals.

Additionally, leveraging EB may require individuals to develop skills to ensure better utilization of limited resources. In this case, SSD may serve as an intangible asset that enables entrepreneurs to make informed decisions about seizing available opportunities, applying the right business strategies to utilize available resources, and adapting to challenges. Adaptability and innovative resource utilization give entrepreneurs more confidence and

the ability to think creatively, which are crucial for bricolage. Once entrepreneurs develop the necessary skills and demonstrate high commitment and persistence in their businesses, they become more capable of handling their businesses effectively and innovatively, using the limited available resources, developing a competitive advantage, combining and recombining resources to overcome constraints, and seizing opportunities. Ultimately, these factors increase their motivation for future growth and expansion (Senyard et al., 2014).

1.2. COM, EB, and GA

While MSEs continue to suffer from limited resources and the inability to utilize and manage the available resources best, there is a growing need for further investigations into understanding the key factors that may contribute to improving micro and small entrepreneurs' ability to continue operating their businesses successfully despite limited resources. In this regard, EB has emerged as a prominent strategy for meeting this objective, as it emphasizes the application of resourcefulness and creativity when having limited resources to ensure business continuity and develop a competitive advantage (Baker & Nelson, 2005).

Nevertheless, ensuring the development of EB behavior must be driven by intrinsic qualities or personal characteristics that motivate EB practices, such as commitment. However, there is limited research on the interaction between commitment and bricolage in the previous literature (Senyard et al., 2013), emphasizing further investigation into how commitment and bricolage interact, especially in developing countries with unstable contexts where most investigations have focused primarily on the relationship between commitment and entrepreneurial intention, rather than on the effort spent during the start-up process of a business (Clercq et al., 2012; Tasnim et al., 2014).

This research defines commitment as an individual's sense of belonging to a business during adversity and their motivation to learn from failure and success to enhance problem-solving effectiveness. It is also the entrepreneurs' obligation, dedication, and sense of responsibility toward their businesses to ensure the best utilization of resources (Tasnim et al., 2014), maintain persistence during adversity, and make strategic decisions. Commitment is a key concept that helps understand how entrepreneurs remain persistent and dedicated to their businesses and entrepreneurial initiatives. Both long-term and initial commitment have been empirically acted as driving forces for long-term persistence over time (Valéau et al., 2024), ultimately leading to strategic resource advantages for business (Steffens et al., 2009). Committed entrepreneurs can better benefit from systematic approaches to strategic decision-making (Novelli & Spina, 2021). Additionally, affective commitment also contributes to enhancing the entrepreneurial performance of entrepreneurs. Having a passion for achieving goals along with positive values and outstanding personality features can all assist in entrepreneurs' success in their businesses, deal with business challenges, and enhance entrepreneurial aspirations to defeat difficulties (Gabay-Mariani & Barbosa, 2024; Tasnim et al., 2014). This further contributes to sustainable entrepreneurial business and venture robustness via long-term persistence (Gabay-Mariani & Barbosa, 2024; Valéau et al., 2024). Commitment is considered a key factor driving persistence, loyalty, and love for the business. It also motivates entrepreneurs to utilize their resources best, discover available business opportunities, and discover innovative ways to deal with limited resources, resulting in better business expansion, growth, and competitive advantage development (Baker & Nelson, 2005; Senyard et al., 2013).

Different types of commitment can lead to greater personal investment, ultimately enhancing entrepreneurial persistence (Gabay-Mariani & Barbosa, 2024; Valéau et al., 2024). This means that when entrepreneurs develop stronger and more substantial commitment levels, they can enhance their entrepreneurial bricolage by remaining engaged, creative, and resourceful in their businesses, resulting in better outcomes that motivate further growth aspirations. According to Senyard et

al. (2013), entrepreneurs need to be attentive and committed to practicing bricolage effectively in their businesses.

In this vein, and based on the above discussion, one may argue that committed entrepreneurs tend to develop higher levels of loyalty, persistence, and commitment to their businesses. This, in turn, leads to the discovery of innovative, creative, and resourceful strategies for utilizing limited resources and ensuring better results, which will then drive entrepreneurs' willingness to expand their businesses and ensure sustainability, especially in an unstable environment.

1.3. SSD, EB, and GA

EB is a crucial practice for entrepreneurs, as it helps them use, combine, and optimize limited resources by using what they have to solve business problems, resulting in developing innovation and competitive advantage in resource-constrained firms (Senyard et al., 2014). EB is particularly important when managing constrained resources, requiring business owners to develop essential skills that serve as intangible assets. These skills empower entrepreneurs to solve problems, make informed business decisions, take appropriate actions, innovate, and think creatively about maximizing limited resources. Previous discussions have emphasized problem-solving, collaboration, and communication as essential skills (Tang, 2019). Furthermore, skills such as critical thinking are also considered key influential factors that enhance individuals' competitiveness and productivity, as they allow entrepreneurs to compete, reduce poverty, create job opportunities, and improve economic growth (Tem et al., 2020). Well-developed skills also improve productivity and competitiveness, encouraging entrepreneurs to consider growth aspirations and business expansion.

There are different understandings and descriptions of soft skills. For example, Shakir (2009) categorized soft skills into three types: problem-solving, decision-making, and interpersonal and personal attributes. In this research, SSD is defined as the capacity of an entrepreneur to develop specific essential abilities such as solving problems, communicating, collaborating, critical thinking, and mak-

ing correct decisions. These skills help ensure better utilization and combination of limited resources, establishing a competitive advantage and innovation that may finally motivate entrepreneurs to pursue further growth aspirations (Baker & Nelson, 2005; Gundry et al., 2011; Hooi et al., 2016).

Individuals can acquire soft skills such as critical thinking, personal development, leadership, teamwork, problem-solving, and communication through various strategies, including education and practical training. These skills are encouraged to be incorporated into the academic curricula due to their importance, especially in the business field (Ngang et al., 2015; Tang, 2019). Those entrepreneurs who develop higher levels of soft skills will have better opportunities to assess and understand their businesses' situations, overcome challenges, make sound business decisions, plan effectively, meet deadlines, and optimize the effort they spend, all of which contribute to enhanced entrepreneurial capacity development (Tem et al., 2020).

Empirically, Tindiwensi et al. (2020) examined the relationship between EB, management skills, and market orientation and reported that farm management skills positively predict market orientation. Similarly, EB was found to partially mediate the relationship between market orientation and farm management skills among small farmers in Uganda. Additionally, Hooi et al. (2016) studied 102 SMEs in Malaysia and found a positive connection between entrepreneurial orientation and sustainable entrepreneurship, and this relationship could successfully be mediated by EB. According to Pascual et al. (2011), every business must consider growth in size and scope. Therefore, business owners willing to consider future growth should consider improving their skills in resource planning, risk analysis, defining objectives, and understanding the financial side of the business. Growth, development, and success of the business may require entrepreneurs to think of being innovative and adaptive and best utilize and combine limited resources innovatively and resourcefully for new purposes and to develop innovative business solutions (Baker & Nelson, 2005; Gundry et al., 2011; Hooi et al., 2016). Developing EB through soft skills enables businesses to achieve better sustainable entrepreneurship and develop resource advantages, resulting in better competi-

tive advantage and a stronger position in the market (Phillips & Tracey, 2014; Steffens et al., 2009), leading to better self-reliance (Senyard et al., 2009), which in turns lead them to think of growing and expanding their businesses sustainably. The above discussion helps to conclude that SSD strengthens the ability and skills of micro and small entrepreneurs' resourcefulness and creativity, resulting in better EB behavior and ultimately motivating them to pursue further GA.

1.4. EB and GA

Micro and small entrepreneurs must effectively utilize limited resources, adapt to uncertainties and shocks, and remain resilient when facing challenges, especially during crises and instability. For entrepreneurs to achieve the previously mentioned qualities, developing their EB behavior is recommended, as this will help increase their confidence and motivate their willingness to grow their businesses.

In this study, growth aspiration is defined as the willingness of entrepreneurs to expand and grow their existing enterprises (Rathogwa & Msimango-Galawe, 2023). EB, as indicated earlier, is the ability of an individual to effectively and innovatively utilize available resources to solve any existing problems or deal with challenges (Hooi et al., 2016; Senyard et al., 2014). Bricolage involves taking immediate action with available resources, enabling entrepreneurs to seize available opportunities without waiting for the perfect resources to be available (Senyard et al., 2009). The bricolage strategy encourages entrepreneurs to think resourcefully, act wisely, analyze deeply, and develop innovative ideas with informed decisions that help them solve problems and drive growth aspirations. Applying the bricolage approach enhances entrepreneurs become more confident and resilient and strengthens their belief in their ability to expand the scope of their businesses, set more significant objectives, develop a clear vision, generate new value, gain a competitive advantage, and achieve long-term success even in challenging environments and unstable context (Senyard et al., 2009).

Based on a large longitudinal dataset, Senyard et al. (2014) empirically confirmed that small firms practicing bricolage have greater opportunities to

develop innovativeness. In other words, bricolage entrepreneurs can develop unique and idiosyncratic resource environments, fostering business growth (Baker & Nelson, 2005). EB enhances GA by equipping entrepreneurs with resourcefulness, confidence, and an innovative mindset to pursue business expansion (Baker & Nelson, 2005). This resourcefulness enables entrepreneurs to search for new opportunities, even in challenging environments, strengthening their aspirations for business expansion. Entrepreneurs managing businesses with a high level of EB behavior tend to develop stronger competitive advantage and more advantageous strategic resource positions among young firms (Steffens et al., 2009) which, in turn, strengthen their confidence and ability to pursue further expansion.

1.5. Development of hypotheses

Based on the above literature, the following hypotheses are developed:

- H1: COM positively influences the use of EB.*
- H2: COM positively influences GA.*
- H3: EB positively mediates the relationship between COM and GA.*
- H4: SSD positively influences the use of EB.*
- H5: SSD positively influences GA.*
- H6: EB positively mediates the relationship between SSD and GA.*
- H7: EB will positively influence GA among micro and small entrepreneurs.*

2. RESEARCH METHODOLOGY

2.1. Data collection, approach to data analysis, and a sample of the study

As previously mentioned, this study aims to identify key factors that enhance EB behavior among micro and small entrepreneurs in Yemen during adverse conditions and examines how EB contrib-

utes to GA. Accordingly, based on the nature of the research questions, it is essential to follow a deductive approach and quantitative type of research. A sample of 280 micro and small entrepreneurs was targeted for data collection. In this study, participants were reached through in-person visits to their business locations, while an online survey link was sent to those who were inaccessible. The collected sample is considered according to the threshold of the 10-times rule sample size (Hair et al., 2019). Targeted respondents operate in various business activities, such as retail, wholesale, services, micro-businesses, etc. In Yemen, MSEs do not have a precise classification and database for micro and small entrepreneurs to facilitate targeting, due to the unstable conditions and continuous failure of businesses; therefore, it was difficult to collect a random sample. Thus, the research followed convenience sampling and snowball sampling to ensure better coverage and broader access.

The author first asked respondents to complete the questionnaire and then encouraged them to refer to other entrepreneurs, allowing the study to reach a more diverse sample. The convenience and snowball sampling are considered suitable for this research, particularly with the limited time and effort of the investigator (Etikan et al., 2015; Sedgwick, 2013; Stratton, 2021). Both selected sampling methods are appropriate for both quantitative and qualitative research. During the data collection process, the researcher ensured that no force was applied to respondents, namely business representatives, business owners, decision-makers, or those in charge of the business with sufficient knowledge of its operations. The data collection process lasted two months, beginning in September 2024 and ending in October 2024. A pilot study with the participation of 25 respondents was conducted to ensure the questionnaire's reliability. It is important to note that the questionnaire employed in the study was originally in English and then translated into Arabic by professional translators to align with the context of the study.

2.2. Measures of the study

After careful review, the study adopts various measures from the previous studies. The developed study model included COM, SSD, EB, and GA. Measures for COM are adopted from Velu et

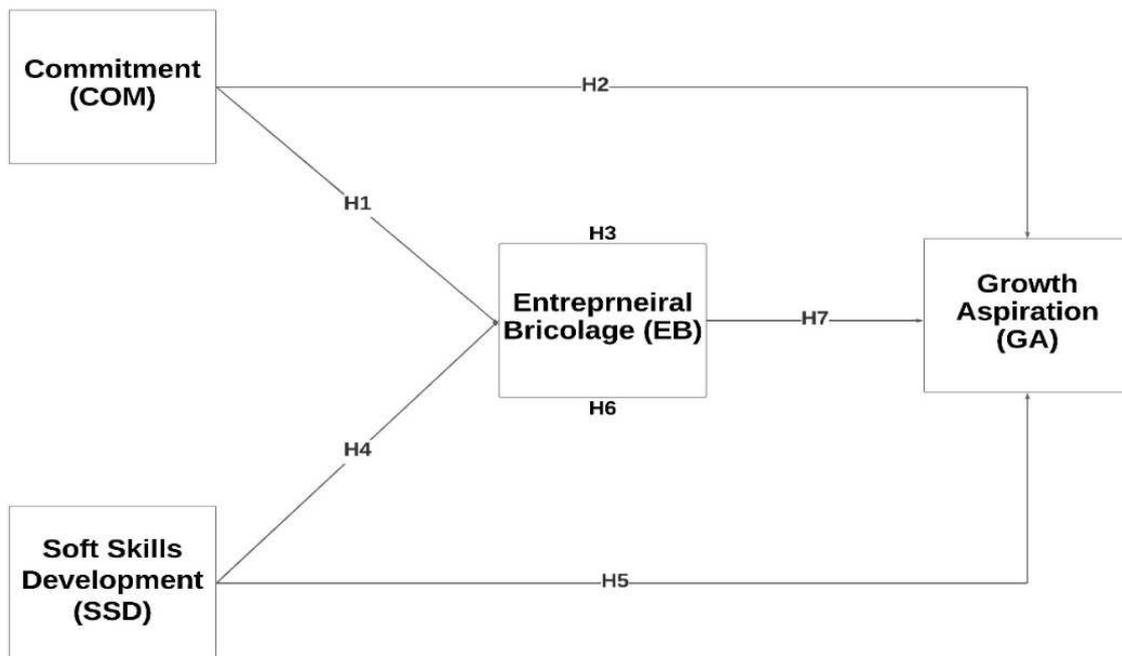


Figure 1. Study framework

al. (2019). A sample statement of the COM measures includes, “I am committed to taking the problem as my own and solving it.” Regarding SSD, its measures are adopted from Kantrowitz (2005), and a sample statement of the measures used includes, “I feel my problem-solving skills have increased.”

Regarding the concept of GA, the measures used are adopted from Rathogwa and Msimango-Galawe (2023). An example of these measures is a sample statement: “I would like to double sales revenue in 5 years.” Finally, the concept of EB is adopted from Hooi et al. (2016). An example statement includes, “I use any resources I have that can help me solve a new problem or seize an opportunity. Reliability and validity related to these measures are discussed in detail in the analysis section. The complete questionnaire is attached in the Appendix A.

2.3. Conceptual model

Figure 1 provides a pictorial representation of the study model. As illustrated, both COM and SSD are independent variables, EB is the mediator, and GA is the dependent variable. After carefully reviewing the previous literature and relevant theories, these concepts have been incorporated into the model.

3. ANALYSIS AND RESULTS

3.1. Descriptive statistics

Table 1. Descriptive statistics

Category	Subcategory	Percentage (%)
Gender	Male	79.6%
	Female	20.4%
Marital Status	Single	52.1%
	Married	46.1%
	Other	1.8%
Age Group	21-30 years	57.9%
	31-40 years	23.6%
	41-50 years	4.6%
	Less than 20 years	12.9%
	More than 50 years	1.1%
Education Level	Secondary School Certificate	42.5%
	Bachelor's Degree	35.7%
	Diploma	13.6%
	Higher Education	1.1%
Business Age	Primary and middle school	7.1%
	Less than 5 years	48.9%
	6-10 years	30.4%
Number of Employees	11-15 years	8.2%
	More than 20 years	12.2%
	1-4 employees	83.2%
Business Sector	5-9 employees	16.8%
	Retail and Wholesale	70.4%
	Service sector (restaurants, cafes, bakeries, rest houses, etc.)	18.2%
	Small crafts sector, small agricultural projects, nurseries, and flower shops, among others	11.4%

Table 1 provides a summary of the respondents' profiles. The study's total sample consisted of 280 respondents, of whom 79.6% were male and 20.4% were female. Most respondents (52.1%) were single, while 46.1% were married. Regarding age, 57.9% were between 21 and 30 years old, followed by 23.6% between 31 and 40. Regarding education level, 42.5% of respondents held a secondary school certificate, 35.7% had a bachelor's degree, and 13.6% had a diploma. Approximately 48.9% of the businesses had been in operation for less than five years, while 30.4% had been established for 6–10 years. Most businesses (83.2%) had between 1 and 4 employees, including the business owner, while the remaining had between 5 and 9 employees. Regarding the business sector, 70.4% were engaged in retail and wholesale, 18.2% operated in services, and 11.4% were involved in small crafts or agricultural projects.

3.2. Data analysis approach

This study uses the PLS-SEM to analyze data and test the hypotheses. The PLS-SEM requires conducting two steps: analysis of the measurement and the structural model. Each step has different tests and tools. The following sections provide further explanations of these steps.

3.2.1. Measurement model

PLS-SEM recommends a two-step process to achieve the desired testing and evaluation results. The first step involves assessing the measurement model. Here, the validity and reliability of the constructs used in the study and their items are evaluated. Specifically, the internal consistency and validity of the variables and their items are evaluated to ensure that their scores meet the threshold. The constructs' validity is assessed using Cronbach's alpha (CA) and Composite Reliability (CR). A score of 0.7 or above is recommended to ensure strong reliability and a consistent representation of the questions used to assess the variables (Hair et al., 2019; Hair et al., 2014). The values reported in Table 2 show that the CR and CA values meet the recommended threshold; accordingly, the variables are reliable.

Once the evaluation of variables is completed, the next step is to assess the convergent validity of the

study constructs using the average variance extracted (AVE), which checks the amount of variance captured by a latent construct relative to the variance due to measurement error, with a recommended value of above 0.5. All the AVE scores are above 0.5 except for COM, which scores around 0.47. However, this is acceptable in exploratory research, especially if there is good CR and a significant path coefficient, both of which are met in the results.

Table 2. Internal reliability and validity of variables

Constructs	Cronbach's alpha (CA)	Composite reliability (CR)	Average variance extracted (AVE)
Com	0.710	0.811	0.463
EB	0.822	0.871	0.530
GA	0.791	0.878	0.707
SSD	0.836	0.884	0.606

The next step in the measurement model assesses the reliability of the variables' indicators to ensure that they accurately measure the intended construct. The indicators test is done with the help of factor loadings. It is advised that the factor loading of an indicator should be 0.7 or above. However, 0.6 can also be accepted, particularly in exploratory research (Hair et al., 2011; Hair et al., 2019). The findings reported in Table 3 indicate that all the item loadings satisfy the required threshold.

Table 3. Item factor loading result

Indicators	Com	EB	GA	SSD
Com1	0.635			
Com2	0.701			
Com3	0.753			
Com4	0.638			
Com5	0.669			
EB1		0.713		
EB3		0.730		
EB4		0.689		
EB5		0.742		
EB6		0.762		
EB7		0.728		
GA1			0.780	
GA2			0.884	
GA3			0.855	
SSD1				0.775
SSD2				0.808
SSD3				0.847
SSD5				0.682
SSE4				0.771

The discriminant validity test ensures the study's variables are distinct and different. The heterotrait–monotrait ratio (HTMT) test tests discriminant validity. The recommended score of the HTMT should be lower than 0.85 to ensure acceptable discriminant validity. Table 4 demonstrates acceptable HTMT; each construct measures a distinct concept (Hair et al., 2011).

Table 4. Discriminant validity – HTMT

Constructs	Com	EB	GA
EB	0.801		
GA	0.392	0.532	
SSD	0.628	0.701	0.546

It is also recommended that multicollinearity issues among the independent variables be examined. Table 5 reports the Variance Inflation Factor (VIF) values for the model's independent variables. According to the results in Table 4, all VIF values are below the threshold of 0.5, confirming no severe multicollinearity issues among the independent variables. In other words, the independent variables used in the study are, to some extent, unique and different from each other. Hence, this confirms the reliability of the study model (Hair et al., 2019).

Table 5. Multicollinearity test

Relationships	VIF
Com → EB	1.307
Com → GA	1.677
EB → GA	1.962
SSD → EB	1.307
SSD → GA	1.587

3.2.2. Structural model

The first step in the structural model is to test the study's hypotheses using the bootstrapping method. Table 6 shows the results of hypotheses 1 to 7

Table 6. Hypothesis testing results

Hypothesis	Relationship	β	T Value	P values	Decision
H1	COM → EB	0.434	8.297	0.000	Accepted
H2	COM → GA	0.009	0.107	0.915	Rejected
H3	COM → EB → GA	0.107	2.515	0.012	Full Mediation
H4	SSD → EB	0.378	7.458	0.000	Accepted
H5	SSD → GA	0.298	3.711	0.000	Accepted
H6	SSD → EB → GA	0.093	2.560	0.010	Partial Mediation
H7	EB → GA	0.247	2.682	0.007	Accepted

and confirms that all the proposed hypotheses, including the mediation ones, are accepted. Further details are discussed in the discussion section.

Table 6 shows the results of the tested hypotheses in the model of the study. As presented, the hypotheses proposed, namely H1, H3, H4, H5, H6, and H7, all are accepted, including the mediation results, while H2 is rejected. More specifically, COM positively and significantly influences EB but has no influence on GA. EB also shows complete mediation between COM and GA. On the other hand, SSD positively and substantially influences EB and GA with the partial mediation of EB. Finally, EB and GA are positively related. Further details are reported in the discussion section.

The structural model analysis also emphasizes testing R-squared and F-squared. The findings from the R-squared test indicate that COM SSD and EB together explain approximately 24.2% of the variance in GA, suggesting the presence of moderate predictive power. In comparison, COM and SSD account for about 49% of the variance in EB, confirming the presence of strong explanatory power according to Cohen (1988).

The F-squared is also checked to assess the influence of independent variables on dependent variables (Cohen, 1988). The findings show that COM and SSD have a moderate effect on EB (0.283 and 0.214, respectively), suggesting that both factors significantly affect how entrepreneurs utilize available resources creatively. Furthermore, COM reveals no direct impact on GA (0.000), and SSD has only a tiny effect on GA (0.074), indicating that enhancing SSD alone may not strongly drive GA. Furthermore, EB has a negligible impact on GA (0.041), indicating that while resourcefulness contributes to GA, other factors might play a more significant role. In conclusion, COM and SSD are

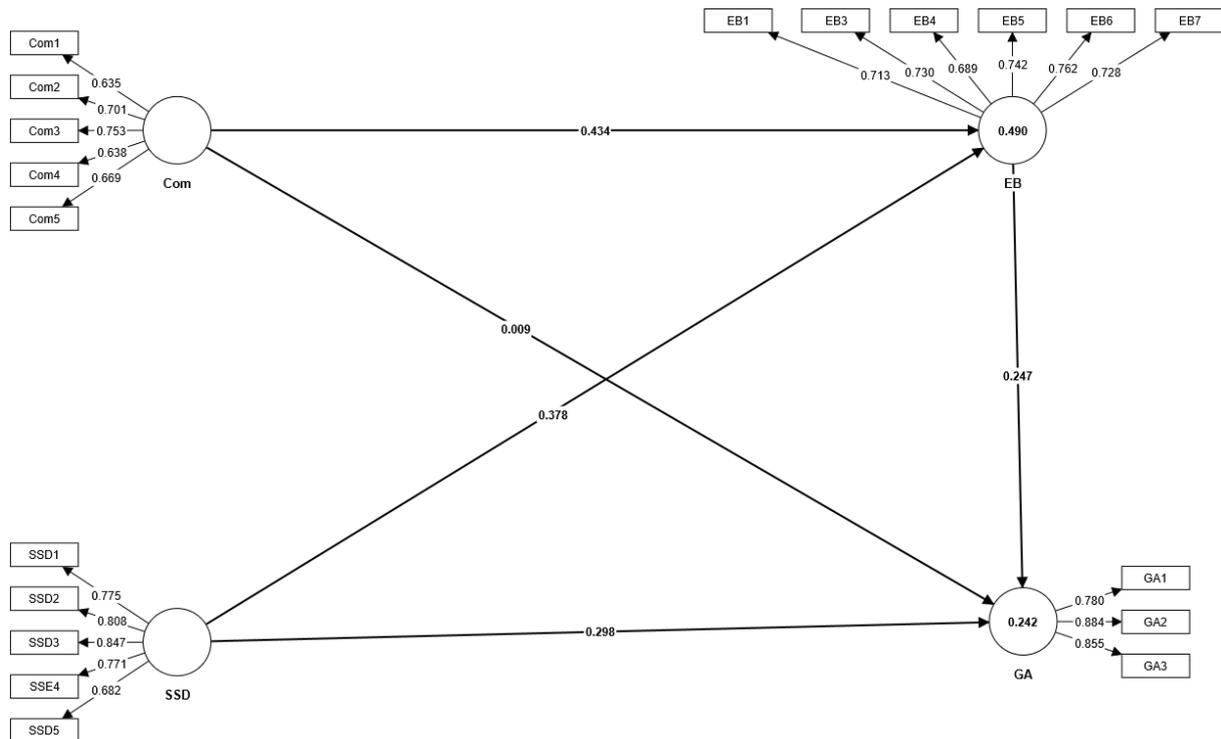


Figure 2. Path coefficients of the structural model

necessary for strengthening EB among micro and small entrepreneurs and for influencing GA. The Q^2 test is also carried out using the Stone-Geisser criterion to check the predictive relevance of the model. The findings show that EB and GA have good predictive relevance with values above zero (0.251 for EB and 0.165 for GA).

An essential step in any research is assessing Common Method Bias (CMB), which is vital for checking the level of bias in the data. This is done using Harman's single-factor test. The reported result shows that the first factor extracted about 29.899% of the variance in the study data, which is below the recommended threshold of 50% specified by Podsakoff et al. (2003), ensuring that there is no chance for CMB in the study data.

Figure 2 shows the path coefficients of the structural model.

4. DISCUSSION

4.1. Interpretation of the results

This study aims to explore the influence of COM and SSD on EB, as well as the effect of EB on GA, among micro and small entrepreneurs during ad-

verse conditions in Yemen. Accordingly, seven hypotheses have been developed and tested using various statistical tools, and all developed hypotheses are supported, except for H2, which is rejected.

The first hypothesis (*H1*), assuming that COM has a positive and significant relationship with EB, is approved ($\beta = 0.434$, $P < 0.05$). This finding confirms that COM is a crucial element for enhancing EB behavior. COM helps micro and small entrepreneurs remain persistent and committed, develop a high level of passion for achieving their goals, benefit from systematic approaches to strategic decision-making, and cultivate outstanding obligation, dedication, and a sense of responsibility toward their businesses, all of which strengthen entrepreneurs' self-efficacy towards utilizing their available resources and persisting during difficult situations. In other words, those individuals who are highly committed and, because of their persistence, tend to use available resources creatively to solve problems and seize opportunities, which aligns with the argument of Gabay-Mariani and Barbosa (2024), Tasnim et al. (2014), and Valéau et al. (2024).

The second hypothesis (*H2*), assuming that COM can positively and significantly influence GA, is

rejected ($\beta = 0.009$, $P > 0.05$). This may mean that COM is not enough to drive GA among micro and small entrepreneurs; other factors may need to enhance this relationship, such as EB, which can help them use resources effectively and innovatively, leading to an increase in the aspiration for business growth. In other words, COM may not be enough to develop a clear vision for entrepreneurs without resources to translate that vision into growth aspirations. Entrepreneurs may first need to actively engage in problem-solving and improvisation before aspiring to business expansion.

Concerning the third hypothesis (*H3*), which assumes that EB can positively and significantly mediate the relationship between COM and GA, the hypothesis is approved ($\beta = 0.107$, $P < 0.05$). This hypothesis confirms that highly committed people can better solve problems with limited resources and effectively and innovatively use them to enhance their GA toward business growth. In other words, committed entrepreneurs tend to develop a higher level of persistence, loyalty, and love for the business, motivating them to become more focused on future actions with a clear vision for further growth intentions. This aligns with previous literature of Gabay-Mariani and Barbosa (2024), Tasnim et al. (2014), and Valéau et al. (2024).

Regarding the fourth hypothesis (*H4*), which assumes that SSD positively and significantly influences EB, it is supported ($\beta = 0.378$, $P < 0.05$). This finding confirms that SSD plays a crucial role in enhancing EB. In other words, essential skills such as problem-solving, resource management, decision-making, team leadership, critical thinking, and adaptability, developed by micro and small entrepreneurs act as tangible assets that assist entrepreneurs in utilizing the available limited resources effectively and innovatively, understanding their business situation that, in turn, will lead eventually to better business performance and develop competitive advantage. This aligns with the previous literature of Gundry et al. (2011), Hooi et al. (2016), Tem et al. (2020), and Tindiwensi et al. (2020).

Concerning *H5* and *H6*, both hypotheses assume that SSD can positively and significantly influence GA directly (*H5*) and through the mediation of EB (*H6*). Both *H5* and *H6* are confirmed with results of $\beta = 0.298$, $P < 0.05$ for *H5*, and result of β

$= 0.293$, $P < 0.05$ for *H6*. The result of *H5* confirms the existence of a direct relationship between SSD and GA, and the result of *H6* also confirms the presence of the partial mediation of EB between SSD and GA. These findings highlight that developing skills among micro and small entrepreneurs is essential for driving growth aspirations and enhancing entrepreneurial bricolage behavior. Skills such as adaptability, leadership, communication, planning problem solving, critical thinking, and decision-making enhance the confidence and self-efficacy of entrepreneurs in utilizing available resources more effectively, helping them deal with challenges related to resource limitations, plan their businesses adequately, and at the same time, motivate them to go for future growth and expansion after gaining a competitive advantage (Hooi et al., 2016; Ngang et al., 2015; Steffens et al., 2009; Tang, 2019; Tem et al., 2020; Yu et al., 2020).

The seventh hypothesis also aims to determine whether EB positively and significantly influences GA. The finding of *H7* confirms this with ($\beta = 0.247$, $P < 0.05$). The finding is factual as those entrepreneurs capable of utilizing their limited resources effectively, resourcefully, and innovatively can develop more confidence and self-efficacy that prepare them mentally to pursue GA. In other words, bricoleurs or entrepreneurs skilled in bricolage can make the right business decisions, solve problems, think critically, adapt to challenges professionally and develop a higher level of resilience, eventually leading to more confidence and competitive advantage. Furthermore, individuals with a higher level of confidence will have more intention and willingness to opt for growth aspirations and develop a unique and idiosyncratic resource environment that will lead to business expansion (Baker & Nelson, 2005; Li et al., 2024; Senyard et al., 2014; Yu et al., 2020).

4.2. Theoretical implications

This study is considered one of the limited articles discussing the concept of bricolage among MSEs and entrepreneurship in developing, unstable countries such as Yemen. As per the study's findings, the positive and significant relationship between COM and EB indicates that committed entrepreneurs can better engage in creative and resourceful problem-solving

and the best use of their resources and critical thinking, supporting the theoretical foundation that considers COM a compelling factor leading to better bricolage behavior. Furthermore, the findings reporting that SSD positively influences EB indicate that entrepreneurs with better soft skills such as problem-solving, adaptability, communication, and decision-making, among others, could better develop EB behavior. This aligns with resource-based theories that emphasize the intangible resources' significant role in entrepreneurship and SMEs. Furthermore, the positive and substantial connection between EB and GA confirms that EB is essential for GA and business growth, which aligns with the theories that emphasize creativity, innovation, and adaptability in entrepreneurship. Additionally, the non-significant direct connection between COM and GA suggests that this relationship requires additional factors to explain it and ensure its applicability. In other words, COM cannot directly stand alone as a predictor of GA; it needs mediators such as EB to translate COM into EB. This finding challenges the traditional belief that COM directly predicts GA and entrepreneurial success.

4.3. Practical implications

This study provides essential guidelines for policymakers, micro and small entrepreneurs, and other interested stakeholders. The findings of this study confirm previously developed assumptions about bricolage, COM, SSD, and GA and provide insights for policymakers on how to support entrepreneurship and the MSE sector. For example, the finding that COM has a positive and significant connection with EB indicates that COM can enhance bricolage behavior. Accordingly, there is a need to enhance COM through goal-setting workshops and practical seminars. In other words, essential workshops and practical seminars should be provided to enhance planning for long-term visions and

goal setting, as entrepreneurs with clear goals and visions can develop a higher level of COM, leading to better EB. Furthermore, the ability of SSD to positively enhance EB confirms that policymakers and business development programs need to design initiatives for entrepreneurs that improve their adaptability, problem-solving, time management, critical thinking, negotiation, and communication skills through implementing mentorship programs and role-playing, helping entrepreneurs become more innovative and adaptive to challenges.

Additionally, as EB has shown a positive and significant relationship with GA, entrepreneurs are encouraged to participate in resource-sharing platforms and local network events to enhance their EB skills. Entrepreneurs can also be motivated by sharing real-life examples of successful bricolage with them so that they learn to creatively utilize their available resources, ultimately leading to growth aspirations. Another action policymakers can take to help entrepreneurs is to offer tax benefits to those who enroll in skills development programs, which will ultimately lead to the development of a resourceful, entrepreneurial society. There is also the possibility of rewarding entrepreneurs who show outstanding COM and good bricolage behavior, motivating other entrepreneurs to follow this behavior. Offering online soft skills and resource optimization training is also possible. Policymakers and business development programs should work toward creating social media groups where entrepreneurs can share experiences and resources to develop bricolage skills and enhance a collaborative growth environment. Finally, policymakers in the context of the study should draw on other countries' experiences in supporting and enhancing MSEs and entrepreneurship, such as Saudi Arabia, which has developed a 2030 Vision that targets increasing the contribution of SMEs to the GDP from 20 to 30%.

CONCLUSION

Limited resources, vulnerability, the ability to manage the business effectively, and other aspects have always been critical issues for micro and small businesses worldwide, specifically in developing countries and during adverse times. This motivates governments, developmental organizations, researchers,

policymakers, and stakeholders in general to formulate different strategies to support micro and small entrepreneurs. This study is an academic initiative to contribute to this effort by developing a conceptual model that attempts to understand key factors that can help micro and small entrepreneurs utilize their available limited resources innovatively and effectively to achieve better growth and ensure business continuity during adverse conditions. This research investigates how COM and SSD can help micro and small entrepreneurs improve their EB behavior, leading to better growth aspirations. Accordingly, to meet the objectives of this study, a sample of 280 micro and small entrepreneurs operating different types of businesses and working in Sanaa, the capital of Yemen, was collected by visiting them physically and online. The study reports interesting results confirming all the proposed hypotheses except for the one investigating the direct relationship between COM and GA and suggesting that COM might need other factors to help in the prediction process of GA. The study's findings emphasize that both COM and SSD act as effective intangible assets for enhancing micro and small entrepreneurs' EB behavior, maximizing their growth willingness and intention, increasing their confidence, and enhancing their self-efficacy toward growing the business.

The study also confirmed that entrepreneurs with high levels of COM and SSD are better positioned to solve their business problems, make the right decisions, effectively utilize their available resources, and creatively develop novel ideas and products at a minimal cost. As this is one of the few research papers on bricolage, GA, SSD, and COM, especially in the context of the study, Yemen, it offers valuable practical and theoretical implications for different stakeholders. The study also acknowledges that despite being recent research of great importance, it still has limitations, such as a limited sample size that may create issues of generalizability. Furthermore, the sample was collected using purposive and snowball sampling, which are non-probability sampling methods that can sometimes create bias. The study is also cross-sectional and based on a single context. Accordingly, these limitations can be mitigated in future research by expanding the sample size, applying random sampling, conducting longitudinal research, and investigating other factors that may influence EB and GA, such as cultural support and motivation.

AUTHOR CONTRIBUTIONS

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APPENDIX A

Table A1. Questionnaire

Concept of the study	Questions
Entrepreneurial Bricolage	I feel confident that I can find practical solutions to new challenges using the resources I already have.
	I happily take on more challenges than others might be able to without many resources.
	I make use of any resources I have that can help me solve a new problem or seize an opportunity.
	I tackle new challenges by using a mix of my current resources and other inexpensive resources I can find.
	When facing new problems or opportunities, I act, trusting that I will find a solution that works.
	By combining the resources I already have, I handle a surprising variety of new challenges.
	When I encounter new challenges, I create workable solutions using what I already own.
	I combine my resources in creative ways to solve new problems, even if those resources weren't originally meant for that purpose.
Growth Aspiration	To address new challenges, I find resources at little or no cost and combine them with what I already have.
	I would like to double the number of people employed by the business in 5 years.
	I would like to double sales revenue in 5 years.
Soft Skills	In 5 years, I would like the business to be much larger than it is today.
	I feel my creativity has increased.
	I feel my problem-solving skills have increased.
	I feel my decision-making skills have increased.
Commitment	I feel I have become more resilient.
	I am focused and able to respond to the unexpected.
	I am committed to taking the problem as my own and solving it
	I enjoy discussing my job and roles with other people to gain better ideas.
	I have a strong sense of belonging among peers during adversity.
	My business culture motivates me to learn from success and failure for a more effective solution.