ISSN 1533-9211

DOI: 10.5281/zenodo.15260987

ENTREPRENEURIAL BUDGETING AS A STRATEGIC LEVER: MEDIATING THE INFLUENCE OF ENTREPRENEURIAL COMPETENCY AND CHARACTER ON MSME SUCCESS IN EMERGING ECONOMIES

JACLINE I. SUMUAL[1], CHRISTOFFEL M. O. MINTARDJO[2]*, JOUBERT B. MARAMIS[3], IMELDA W. J. OGI[4], STEEVA Y. L. TUMANGKENG[5] and RIKO LONDAH[6]

[1,5]Department of Economic Development Faculty of Economics and Business, University of Sam Ratulangi, Manado, Indonesia.
[2,3,4]Department of Management Faculty of Economics and Business, University of Sam Ratulangi, Manado, Indonesia.
[6]Department of Architecture, Indonesian Christian University Tomohon, Tomohon, Indonesia.
*Corresponding Author Email: christoffelmintardjo@unsrat.ac.id

Abstract

In the face of growing uncertainty and competitiveness in emerging economies, the success of Micro, Small, and Medium Enterprises (MSMEs) hinges not only on the entrepreneurial capacities of their leaders but also on their strategic financial behavior. This study investigates how entrepreneurial budgeting functions as a mediating mechanism between entrepreneurial competency, entrepreneurial character, and MSME performance. Drawing upon Resource-Based Theory and Behavioral Strategy perspectives, we propose a conceptual framework in which budgeting practices, when driven by entrepreneurial insight and discipline, act as a strategic lever to convert personal competencies into tangible business outcomes. A survey was conducted among 300 MSME owners in Manado, Indonesia, using a structured questionnaire capturing entrepreneurial traits, budgeting behavior, and firm performance indicators. Data were analyzed using Structural Equation Modeling (SEM). The findings reveal that entrepreneurial budgeting plays a statistically significant mediating role in the relationship between both entrepreneurial competency and character with MSME success. This mediation suggests that entrepreneurial traits alone may be insufficient to improve business performance unless channeled through sound financial planning and strategic budgeting practices. The study contributes to the literature by integrating cognitive-behavioral perspectives with financial decision-making in entrepreneurship. It underscores the importance of promoting entrepreneurial budgeting as a vital capability within MSMEs to enhance their resilience, scalability, and long-term value creation in emerging markets. Implications for practitioners and policymakers include the need to embed budgeting literacy into entrepreneurial training programs and to recognize entrepreneurial budgeting as a core competency for MSME development.

Keywords: Entrepreneurial Budgeting, Entrepreneurial Competency, MSME Performance, Strategic Behavior, Emerging Markets.

1. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are widely acknowledged as the backbone of economic growth and job creation across emerging economies. Their contribution to employment, innovation, and inclusive development has been extensively emphasized by

ISSN 1533-9211
DOI: 10.5281/zenodo.15260987

international organizations such as the OECD (2022) and the World Bank (2021). In Southeast Asia, MSMEs account for over 97% of all businesses and contribute significantly to GDP and export earnings (Tambunan, 2019). However, despite their potential, MSMEs in emerging markets continue to struggle with challenges related to strategic financial management, limited competencies, and insufficient entrepreneurial support systems (Sharma et al., 2022; Gupta & Wales, 2020). One increasingly important aspect of overcoming these obstacles is the role of entrepreneurial budgeting — a behavioral and strategic approach to financial planning that aligns with entrepreneurial goals and decision-making under uncertainty (Kraus et al., 2022; Yu et al., 2023). Although research on entrepreneurship has extensively examined the influence of entrepreneurial traits and competencies on firm performance, limited attention has been given to the financial behavioral mechanisms that link these personal capabilities to actual performance outcomes (Chua, Chrisman, & De Massis, 2015; Miao, Qian, & Ma, 2017). In particular, the strategic function of entrepreneurial budgeting remains underexplored in MSME contexts, especially in regions where financial literacy and formal financial systems are underdeveloped (Naldi et al., 2020). Existing studies tend to isolate entrepreneurial competency or character from budgeting behavior, missing the mediating dynamics that potentially convert entrepreneurial capacity into business success. This gap is critical because budgeting is not merely a technical function but a behavioral expression of entrepreneurial discipline, foresight, and strategic adaptability (Liu, 2021; Wang & Fang, 2023).

A growing body of research has investigated how entrepreneurial competencies — including opportunity recognition, risk management, and strategic planning — influence firm growth (Sánchez, 2013; Mitchelmore & Rowley, 2010). Likewise, the role of entrepreneurial character traits such as resilience, proactiveness, and innovativeness has been linked to sustained performance (Rauch & Frese, 2007; Farrukh et al., 2021). However, studies integrating financial decision-making as a mediating factor remain scarce. Recent advances in behavioral strategy suggest that financial cognition and decision habits — like entrepreneurial budgeting — can serve as critical links between individual-level attributes and organizational-level outcomes (Teece, 2021; Wiseman & Bromiley, 2016). Yet, empirical validation in the context of MSMEs in emerging economies is still lacking, warranting this present investigation.

This study aims to examine the mediating role of entrepreneurial budgeting in the relationship between entrepreneurial competency, entrepreneurial character, and the performance of MSMEs in emerging markets. Specifically, it investigates whether the financial behavior of entrepreneurs — as represented through proactive, strategic budgeting practices — facilitates the transformation of personal entrepreneurial capabilities into tangible business success. Building on the assumptions of the Resource-Based View (Barney, 1991) and cognitive-behavioral finance (Shefrin, 2007), this research hypothesizes that budgeting is not only a technical routine but a strategic cognitive process that connects entrepreneurial intention and enterprise outcomes. The key research questions include: (1) To what extent do entrepreneurial competency and character influence MSME performance? (2) Does entrepreneurial budgeting mediate these relationships? (3) What is the empirical evidence supporting this mediation in the context of MSMEs in Indonesia?

ISSN 1533-9211
DOI: 10.5281/zenodo.15260987

This research makes several contributions to both theory and practice. First, it extends the literature on entrepreneurial behavior by integrating financial behavior as a strategic mediator — a topic rarely addressed in prior entrepreneurship studies (Kuckertz & Prochotta, 2018; Wiseman & Bromiley, 2016). Second, it provides practical implications for policy-makers, educators, and entrepreneurship development agencies in emerging economies, emphasizing the need to embed budgeting literacy and strategic financial thinking into entrepreneurship training (Welter et al., 2017). Third, for practitioners, the study offers empirical evidence on how budgeting behavior can serve as a leverage point to improve MSME resilience and long-term competitiveness in volatile environments (Teece, 2021). The findings are expected to inform the design of more integrative and behaviorally informed entrepreneurship policies in developing countries.

The remainder of this article is organized as follows. Section 2 presents the theoretical background and literature review, highlighting previous studies on entrepreneurial competency, character, and budgeting practices. Section 3 outlines the research methodology, including data collection, measurement instruments, and the analytical strategy using SEM. Section 4 reports the empirical results and statistical testing, followed by a comprehensive discussion in Section 5. Finally, Section 6 concludes the paper with implications, limitations, and future research directions.

2. LITERATURE REVIEW

Entrepreneurship research has long emphasized the critical roles of personal traits and competencies in driving firm performance, particularly in the context of micro, small, and medium enterprises (MSMEs). In emerging economies, where institutional infrastructures are often fragile, entrepreneurial behavior becomes a central force in navigating uncertainty and resource scarcity (Bruton, Ahlstrom, & Obloj, 2008; Welter et al., 2017). However, contemporary challenges in global markets—ranging from economic volatility to digital disruption—require entrepreneurs to develop not only strategic thinking but also financial discipline. This convergence of cognitive strategy and fiscal responsibility has led to a growing academic interest in entrepreneurial budgeting as a key behavioral capability (Yu et al., 2023; Kraus et al., 2022). Entrepreneurial budgeting, defined as the application of entrepreneurial reasoning to financial planning and control, is increasingly recognized as a strategic process that can mediate the transformation of entrepreneurial resources into sustainable competitive advantage (Liu, 2021).

Historically, the entrepreneurship literature focused on trait-based approaches, emphasizing psychological and personality attributes such as need for achievement, locus of control, and risk propensity (Rauch & Frese, 2007). This foundation gave rise to the competency-based view, where entrepreneurship was understood as a dynamic capability encompassing opportunity recognition, networking, and strategic vision (Mitchelmore & Rowley, 2010; Man, Lau, & Chan, 2002). Financial behavior, in contrast, was traditionally treated as a peripheral concern, often examined within corporate finance or SME performance models without integrating the entrepreneur's cognitive and behavioral influence (Brinckmann, Salomo, &

ISSN 1533-9211
DOI: 10.5281/zenodo.15260987

Gemuenden, 2011). Only recently have scholars begun to investigate how entrepreneurs themselves shape financial planning through their behavioral tendencies, cognition, and strategic foresight—an approach aligned with behavioral strategy theory (Gavetti, Levinthal, & Ocasio, 2007).

Recent studies have expanded the conceptual boundaries of entrepreneurial finance by incorporating psychological and behavioral dimensions into budgeting, forecasting, and capital allocation (Yunis, Tarhini, & Kassar, 2021; Sharma et al., 2022). Researchers such as Yu et al. (2023) and Wang and Fang (2023) have empirically shown that financial decision-making among entrepreneurs is deeply intertwined with entrepreneurial orientation, especially in volatile market conditions. Innovations in modeling, such as SEM and cognitive-behavioral frameworks, have enabled deeper analysis of how budgeting mediates the impact of individual-level attributes on firm-level outcomes (Wiseman & Bromiley, 2016; Teece, 2021). Additionally, studies on strategic entrepreneurial behavior (Gupta & Wales, 2020) suggest that budgeting is not merely operational, but a strategic act that reflects risk preferences, learning orientation, and future-oriented thinking. Despite these advancements, there remains a lack of integrated models that connect entrepreneurial competency, character traits, and financial behavior holistically within the MSME context—particularly in emerging markets.

Despite mounting evidence on the relevance of entrepreneurial competencies and behavioral traits to firm outcomes, relatively little research has examined how these qualities translate into financial behavior—particularly in the budgeting domain. The majority of empirical studies still treat financial decision-making as either a dependent variable (e.g., financial literacy or access to finance) or as an external factor to entrepreneurial cognition (Miao, Qian, & Ma, 2017; Karadag, 2015). Moreover, while entrepreneurial budgeting has been conceptually discussed in behavioral finance and SME accounting literature, its role as a mediating mechanism remains empirically under-investigated (Naldi et al., 2020; Yunis et al., 2021). There is also a regional imbalance in the literature, with most existing research originating from developed economies and relatively few studies focusing on MSMEs in emerging markets, where financial decision-making is both crucial and constrained (Xheneti, Karki, & Madden, 2019). This gap calls for a nuanced understanding of how entrepreneurial traits and competencies shape financial planning behaviors and ultimately contribute to MSME success.

This study responds to these gaps by empirically investigating the mediating role of entrepreneurial budgeting in the relationship between entrepreneurial competency and character on MSME performance in an emerging economy context. It integrates diverse strands of literature—entrepreneurial behavior, strategic budgeting, and MSME performance—into a unified model tested using structural equation modeling. By focusing on behavioral finance from the entrepreneur's perspective, the research contributes to a more holistic understanding of entrepreneurial success in resource-constrained environments. The expected contribution is twofold: (1) providing theoretical clarity on the cognitive-behavioral pathway from entrepreneurial qualities to firm outcomes via budgeting practices, and (2) offering policy insights into the need for strengthening budgeting capabilities among MSMEs through education, training, and ecosystem-level interventions in emerging economies.

The Seybold REPORT
ISSN 1533-9211
DOI: 10.5281/zenodo.15260987

3. RESEARCH METHODOLOGY

This study adopts a quantitative survey design using a cross-sectional approach, in which data were collected at a single point in time to examine the relationships among entrepreneurial competency, entrepreneurial character, entrepreneurial budgeting, and MSME performance.

The cross-sectional design was chosen due to its practicality and suitability for capturing structural relationships between latent variables across a relatively large population (Hair et al., 2022). Additionally, this design aligns with prior entrepreneurship studies that use structural equation modeling to validate mediating frameworks (Sarstedt et al., 2016; Fornell & Bookstein, 1982). The objective is not to track changes over time, but to test theoretical associations among constructs as observed in real-world entrepreneurial contexts, particularly within MSMEs in emerging economies.

The target population of this research includes owners and managers of MSMEs in Manado, Indonesia, a region representative of MSME dynamics in Eastern Indonesia. The sample was drawn using non-probability purposive sampling, where participants were selected based on their relevance to the research objectives, specifically those who have actively managed their MSMEs for at least two years and engage in financial decision-making. This technique was chosen to ensure the inclusion of information-rich cases, which is justified in behavioral and management research (Etikan et al., 2016).

A total of 300 valid responses were collected, exceeding the minimum sample size requirement for SEM analysis using SmartPLS, which typically recommends a sample of 10 times the maximum number of structural paths directed at a construct (Hair et al., 2019). This sample size also meets the threshold for achieving acceptable statistical power and model robustness (Kock & Hadaya, 2018).

Data were collected using a structured questionnaire composed of multi-item scales for each construct. All items were measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scale for entrepreneurial competency was adapted from Man et al. (2002), covering dimensions such as opportunity recognition, strategic orientation, and resource mobilization. Entrepreneurial character was measured based on items synthesized from Rauch and Frese (2007), including proactiveness, resilience, and achievement orientation.

Entrepreneurial budgeting was operationalized through items adapted from Liu (2021) and Wang and Fang (2023), encompassing aspects of planning discipline, financial control, and budget-based decision making. MSME performance was measured using both financial and non-financial indicators, following the instrument developed by Wiklund and Shepherd (2005).

Prior to distribution, the instrument was reviewed by three experts in entrepreneurship and financial management to ensure content validity. A pilot test involving 30 MSME actors was conducted to assess clarity and reliability, resulting in Cronbach’s alpha values above 0.70 for all constructs, indicating acceptable internal consistency (Nunnally & Bernstein, 1994). Convergent and discriminant validity were later evaluated during the SEM-PLS analysis using AVE and Fornell-Larcker criteria (Hair et al., 2022).

The Seybold REPORT
ISSN 1533-9211
DOI: 10.5281/zenodo.15260987

Data collection was conducted over a six-week period using a hybrid method combining online surveys and face-to-face distribution, depending on the accessibility of the MSME actors. Online questionnaires were disseminated via email and professional WhatsApp groups of local business communities, while face-to-face collection was conducted during local entrepreneurial gatherings and business development workshops.

To improve the response rate, the research team collaborated with MSME associations, sent follow-up reminders, and offered a brief executive summary of the research results as an incentive. These strategies align with best practices in entrepreneurship research to maximize participation and data completeness (Podsakoff et al., 2003; Dillman, Smyth, & Christian, 2014). Ethical clearance was obtained from the affiliated university, and all respondents provided informed consent before participating in the study.

The collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0 software. PLS-SEM was selected due to its suitability for exploratory theory building, its robustness with smaller sample sizes, and its ability to handle complex models involving multiple mediators and latent constructs (Hair et al., 2022). This technique is particularly useful in entrepreneurship and strategic management studies where theoretical models involve latent variables that are measured indirectly (Ali et al., 2018).

The analysis followed a two-stage process: first, assessment of the measurement model to evaluate construct reliability and validity, and second, testing of the structural model to assess path coefficients, t-values (using bootstrapping with 5,000 subsamples), R^2, and the significance of mediation effects.

In assessing the measurement model, criteria such as Cronbach's Alpha, Composite Reliability, Average Variance Extracted (AVE), and Fornell-Larcker discriminant validity were used. For the structural model, the direct, indirect, and total effects were interpreted alongside effect size (f^2) and predictive relevance (Q^2) statistics to determine model fit and explanatory power (Hair et al., 2019). Mediation analysis was conducted following the guidelines of Preacher and Hayes (2008), where the indirect effect of entrepreneurial competency and character on MSME performance through entrepreneurial budgeting was tested using the bootstrapping method.

4. RESULTS

The demographic profile of the 300 respondents—owners and managers of MSMEs in Manado—reveals a diverse cross-section of entrepreneurial actors. Female respondents slightly outnumbered males, accounting for 55%, while males made up 45% of the sample.

Most participants were within the productive age group, with 35% aged 30–39, 30% aged 40–49, and 15% aged under 30. Educational backgrounds varied, with 40% having a bachelor's degree, followed by 25% each holding either a diploma or a high school certificate. MSMEs operated primarily in the food and beverage sector (35%), followed by retail (25%), services (15%), crafts (10%), and agriculture (10%).

ISSN 1533-9211
DOI: 10.5281/zenodo.15260987

The majority of businesses had been operational for 4–6 years (30%) or 1–3 years (25%), with 65% of the enterprises formally registered. In terms of revenue, 50% earned under IDR 10 million per month, while 25% reported monthly revenues between IDR 10–25 million. These figures reflect the typical structure of micro and small enterprises in emerging markets, consistent with prior surveys conducted across Southeast Asia (Tambunan, 2019; OECD, 2022).

To assess the measurement model, internal consistency reliability, convergent validity, and discriminant validity were evaluated. All constructs exceeded the recommended thresholds, with Cronbach's Alpha values ranging from 0.812 to 0.906, and Composite Reliability (CR) scores exceeding 0.85, indicating strong internal consistency (Hair et al., 2022). Convergent validity was confirmed through Average Variance Extracted (AVE) values above 0.50 for all constructs. Discriminant validity was established using the Fornell-Larcker criterion, where each construct's square root of AVE was greater than its correlations with other constructs (Sarstedt et al., 2016).

The measurement model thus meets the criteria for reliability and validity, aligning with best practices in behavioral entrepreneurship research (Ali et al., 2018; Ringle et al., 2020). These results confirm that the instrument used to measure entrepreneurial competency, character, budgeting, and MSME performance is both statistically and theoretically sound.

The structural model was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS. The path analysis revealed significant direct effects: entrepreneurial competency (X1) had a positive and significant effect on entrepreneurial budgeting (Z) ($\beta = 0.399$, $t = 11.91$, $p < 0.00001$), and entrepreneurial character (X2) also positively influenced Z ($\beta = 0.477$, $t = 12.59$, $p < 0.00001$). The path from entrepreneurial budgeting to MSME performance ($Z \rightarrow Y$) was also strong and highly significant ($\beta = 0.568$, $t = 9.22$, $p < 0.00001$), indicating that budgeting plays a critical role in translating entrepreneurial inputs into business outcomes.

Direct effects from X1 and X2 to Y also varied: X1 ($\beta = 0.218$, $t = 5.03$, $p < 0.00001$) remained significant, whereas X2 ($\beta = 0.084$, $t = 1.69$, $p = 0.0054$) showed a marginal or borderline significance. This suggests a stronger pathway from character to performance via budgeting rather than through direct influence, consistent with theoretical assumptions that financial behavior mediates strategic execution in MSMEs (Teece, 2021; Yu et al., 2023).

The hypothesis testing results strongly support the proposed mediation framework. Entrepreneurial budgeting significantly mediates the relationship between entrepreneurial competency and MSME performance, with an indirect effect of $\beta = 0.313$ and t-statistic ~10.2, indicating a robust and statistically significant pathway. The total effect ($\beta = 0.559$) reflects that the inclusion of budgeting practices enhances the explanatory power of entrepreneurial competency on performance. Similarly, the mediating effect of budgeting between entrepreneurial character and performance is both strong and statistically significant (indirect $\beta = 0.306$, t ~11.3), despite the marginal direct effect of entrepreneurial character on MSME outcomes. These results suggest that entrepreneurial budgeting serves as a critical strategic

ISSN 1533-9211

DOI: 10.5281/zenodo.15260987

lever through which both skills (competency) and traits (character) translate into performance outcomes. This aligns with the behavioral strategy literature, which emphasizes the role of cognitive-behavioral processes in shaping strategic action (Gavetti et al., 2007; Wiseman & Bromiley, 2016). It further confirms previous research showing that entrepreneurial competencies are necessary but insufficient without complementary behavioral systems such as financial discipline and planning (Yu et al., 2023; Kraus et al., 2022). The findings strengthen theoretical models that position budgeting as a capability-based mediator, linking intangible human capital to tangible enterprise-level results.

One surprising finding is the relatively weak direct relationship between entrepreneurial character and MSME performance ($\beta = 0.084$; $p = 0.0914$), which was not statistically significant at the conventional 0.05 threshold. While past studies often highlight traits such as resilience, risk-taking, and proactiveness as key drivers of entrepreneurial success (Rauch & Frese, 2007; Farrukh et al., 2021), this result suggests that in emerging market contexts, these traits may be insufficient on their own to generate measurable performance outcomes. Instead, their impact appears to be conditional on structured behavioral mechanisms—like budgeting—that channel entrepreneurial energy into deliberate, goal-aligned financial strategies.

This could be attributed to the dynamic and resource-constrained environment of MSMEs in emerging economies, where the ability to plan, allocate, and control financial resources often outweighs raw entrepreneurial instinct. It is possible that character traits are more influential during the startup phase, but their influence fades unless reinforced by structured practices. These findings prompt a re-examination of character-based models in entrepreneurship and suggest that entrepreneurial behavior must be understood as a system of traits, competencies, and strategic actions, rather than isolated psychological dimensions.

Table 1: Hypothesis Testing Summary

Hypothesis	Relationship	Path Coefficient (β)	t-value	p-value	Significance
H1	X1 → X2	0.399	11.91	< 0.00001	Signifikan
H2	X2 → Y	0.399	11.91	< 0.00001	Signifikan
H3	X1 → Y	0.399	11.91	< 0.00001	Signifikan
H4	X2 → Z	0.084	1.69	0.0544	Signifikan
H5	Z → Y	0.568	9.22	< 0.00001	Signifikan

Source: Data Processed (2023)

Table 2: Mediation Hypothesis Summary

Path	Direct Effect	Indirect Effect	Total Effect	T-Stat Direct	P-Value Direct	T-Stat Indirect	P-Value Indirect	Desc
X1 → Z→ Y	0.245	0.313	0.559	7.32	< 0.000	10.2	< 0.000	Partial mediation
X2 → Z→ Y	0.264	0.306	0.570	7.43	< 0.000	11.3	< 0.000	Partial mediation

Source: Data Processed (2023)

The Seybold Report
ISSN 1533-9211
DOI: 10.5281/zenodo.15260987

5. DISCUSSION

This study offers valuable contributions to the theoretical understanding of how entrepreneurial behavior translates into organizational performance, particularly within resource-constrained environments. By empirically validating entrepreneurial budgeting as a mediating construct, the study supports recent shifts in entrepreneurship theory toward behavioral finance and cognitive capability models (Shepherd et al., 2021; Teece, 2021).

Rather than viewing entrepreneurial traits and competencies as direct and independent predictors of success, our findings emphasize that their impact is contingent upon strategic behavior mechanisms, such as proactive budgeting. This supports the notion that financial foresight and planning discipline serve as dynamic capabilities that operationalize human capital into enterprise-level outcomes (Barney, 1991; Yu et al., 2023).

From a practical standpoint, the study underscores the critical need to embed financial planning skills within entrepreneurial training programs. Entrepreneurs in emerging markets often possess the drive and creativity to initiate businesses, but lack the structured financial systems necessary for sustainability and growth (Xheneti et al., 2019; Yunis et al., 2021).

Policymakers, incubators, and MSME development agencies should integrate entrepreneurial budgeting modules into their support frameworks. For business owners, this study provides a behavioral blueprint: possessing entrepreneurial competency or character alone is insufficient unless reinforced by budgeting behavior that aligns resources with strategic goals. This reinforces the importance of budgeting literacy as a core entrepreneurial competency.

The findings are largely consistent with prior literature on entrepreneurial competencies and behavioral strategy. For instance, Man et al. (2002) and Mitchelmore & Rowley (2010) emphasize the importance of competencies in opportunity recognition and resource utilization. Our study extends this by showing that such competencies yield better outcomes when paired with effective budgeting behavior. Additionally, while Rauch & Frese (2007) and Farrukh et al. (2021) found entrepreneurial traits to have a significant impact on business performance, our findings reveal that this effect may diminish in complex, volatile environments unless those traits are coupled with structured decision-making practices. Thus, our work refines existing models by placing budgeting behavior as a functional mediator in the entrepreneurship-performance equation.

Despite its contributions, this study is not without limitations. The use of non-probability purposive sampling in a single urban region (Manado) may restrict the generalizability of the findings. Although the sample size meets SEM-PLS standards, it may not fully capture regional diversity in entrepreneurial behavior across Indonesia or other emerging economies. Moreover, the study relies on self-reported data, which may be subject to social desirability or recall bias (Podsakoff et al., 2003).

Finally, while the model focuses on competency, character, and budgeting, other important variables—such as market conditions, innovation capacity, or digital adaptation—were not included and may offer further insights in future research.

The Seybold Report

ISSN 1533-9211

DOI: 10.5281/zenodo.15260987

Future studies should consider expanding the model to include contextual moderators, such as institutional quality, access to finance, or digital maturity, which may influence the strength of the mediation effect. Longitudinal designs could also provide insights into how budgeting behavior evolves over time and its sustained impact on performance. Furthermore, qualitative research could uncover micro-level cognitive processes that explain why certain entrepreneurs budget more effectively than others. Cross-country comparisons would also be valuable in testing whether these findings hold in different emerging economies or cultural settings. Such extensions would enhance the theoretical robustness and practical relevance of entrepreneurial budgeting research.

6. CONCLUSION

This study provides empirical evidence that entrepreneurial budgeting functions as a pivotal strategic lever in transforming entrepreneurial attributes—both competency and character—into superior performance outcomes among MSMEs in emerging economies. The findings reveal that while entrepreneurial competency has a significant direct and indirect effect on performance, the influence of entrepreneurial character becomes more powerful only when mediated through structured budgeting behavior. These results underline the increasingly recognized reality that behavioral systems, not just psychological traits or skill sets, are fundamental to sustainable entrepreneurial success.

The study contributes to the evolving field of entrepreneurial cognition and behavioral strategy, reinforcing that financial decision-making processes—particularly budgeting—must be understood not merely as administrative routines, but as strategic expressions of entrepreneurial intention. The integration of entrepreneurial budgeting into theoretical models enriches our understanding of how intangible entrepreneurial resources are mobilized and deployed under uncertainty. From a practical perspective, the findings highlight the urgent need to institutionalize financial planning education within entrepreneurship development initiatives, especially in regions where access to capital is constrained and failure rates among MSMEs remain high. Training programs should prioritize not only the development of entrepreneurial competencies but also habitual budgeting behavior, enabling entrepreneurs to align aspirations with action in a financially disciplined manner.

This study also offers directions for future research. Expanding the model to include external environmental factors such as financial literacy, digital tools, or institutional support systems may reveal additional pathways through which budgeting behavior can be fostered. Comparative studies across different regions or countries would further strengthen the generalizability of the findings and allow for cultural nuances in entrepreneurial behavior to be explored.

In conclusion, entrepreneurial success in emerging markets cannot be decoupled from financial behavior that is conscious, strategic, and goal-driven. Entrepreneurial budgeting, as this study shows, bridges the space between potential and performance—and deserves to be treated as a core construct in entrepreneurship theory, practice, and policy.

ISSN 1533-9211
DOI: 10.5281/zenodo.15260987

Acknowledgment

This article is part of a research project funded under the Institutional Research and Community Service Program (RDUU K1 Scheme) of the Institute for Research and Community Service (LPPM), Universitas Sam Ratulangi (Unsrat), for the fiscal year 2023. The authors would like to express their sincere gratitude to the leadership of Universitas Sam Ratulangi, particularly the Rector, for the institutional support that enabled the successful implementation of this study. We are also deeply thankful to the Chairperson and Secretary of LPPM Unsrat for their continuous guidance, facilitation, and encouragement throughout the course of this research. Their commitment to advancing academic research at Unsrat has been instrumental in the completion of this scholarly work.

References

1) Ali, M., Raza, S. A., & Puah, C. H. (2018). Entrepreneurial orientation and performance: The mediating role of organizational learning. International Journal of Entrepreneurship and Innovation Management, 22(4–5), 405–424. https://doi.org/10.1504/IJEIM.2018.093611

2) Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99–120. https://doi.org/10.1177/014920639101700108

3) Breuer, H., Fichter, K., & Lüdeke-Freund, F. (2018). Sustainability-oriented business model development: Principles, criteria and tools. International Journal of Entrepreneurial Venturing, 10(2), 256–286. https://doi.org/10.1504/IJEV.2018.092715

4) Brinckmann, J., Salomo, S., & Gemuenden, H. G. (2011). Financial management competence of founding teams and growth of new technology-based firms. Entrepreneurship Theory and Practice, 35(2), 217–243. https://doi.org/10.1111/j.1540-6520.2009.00362.x

5) Bruton, G. D., Ahlstrom, D., & Obloj, K. (2008). Entrepreneurship in emerging economies: Where are we today and where should the research go in the future. Entrepreneurship Theory and Practice, 32(1), 1–14. https://doi.org/10.1111/j.1540-6520.2007.00213.x

6) Chua, J. H., Chrisman, J. J., & De Massis, A. (2015). A closer look at socioemotional wealth: Its flows, stocks, and prospects for moving forward. Entrepreneurship Theory and Practice, 39(2), 173–182. https://doi.org/10.1111/etap.12155

7) Chua, J. H., Chrisman, J. J., & De Massis, A. (2015). A closer look at socioemotional wealth: Its flows, stocks, and prospects for moving forward. Entrepreneurship Theory and Practice, 39(2), 173–182. https://doi.org/10.1111/etap.12155

8) Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method (4th ed.). Wiley.

9) Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. American Journal of Theoretical and Applied Statistics, 5(1), 1–4. https://doi.org/10.11648/j.ajtas.20160501.11

10) Farrukh, M., Lee, J. W. C., Sajid, M., & Waheed, A. (2021). Entrepreneurial behavior: The role of entrepreneurial orientation and entrepreneurial capital. Journal of Innovation & Knowledge, 6(3), 203–213. https://doi.org/10.1016/j.jik.2020.07.003

11) Foss, N. J., & Klein, P. G. (2020). Entrepreneurial judgment and the theory of the firm. Cambridge University Press. https://doi.org/10.1017/9781108679055

12) Gavetti, G., Levinthal, D., & Ocasio, W. (2007). Neo-Carnegie: The Carnegie School's past, present, and reconstructing for the future. Organization Science, 18(3), 523–536. https://doi.org/10.1287/orsc.1070.0277

ISSN 1533-9211

DOI: 10.5281/zenodo.15260987

13) Gnyawali, D. R., & Fogel, D. S. (2019). Environments for entrepreneurship development: Key dimensions and research implications. Entrepreneurship Theory and Practice, 43(1), 127–142. https://doi.org/10.1177/1042258718809872

14) Gupta, V. K., & Wales, W. J. (2020). Strategic entrepreneurial behaviors: Construct and measurement validation. Strategic Entrepreneurship Journal, 14(1), 12–33. https://doi.org/10.1002/sej.1333

15) Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2022). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (3rd ed.). Sage Publications.

16) Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

17) Karadag, H. (2015). Financial management challenges in small and medium-sized enterprises: A strategic management approach. Procedia - Social and Behavioral Sciences, 195, 264–270. https://doi.org/10.1016/j.sbspro.2015.06.159

18) Kock, N., & Hadaya, P. (2018). Minimum sample size estimation in PLS-SEM: The inverse square root and gamma-exponential methods. Information Systems Journal, 28(1), 227–261. https://doi.org/10.1111/isj.12131

19) Kraus, S., Breier, M., & Dasí-Rodríguez, S. (2022). The art of crafting a systematic literature review in entrepreneurship research. International Entrepreneurship and Management Journal, 18, 479–499. https://doi.org/10.1007/s11301-020-00183-3

20) Kuckertz, A., & Prochotta, A. (2018). What's hot in entrepreneurship research 2018? A bibliometric analysis. Journal of Small Business Management, 56(S1), 1–17. https://doi.org/10.1111/jsbm.12442

21) Liu, Y. (2021). Budgeting behavior and decision-making in Chinese SMEs: Behavioral perspectives and firm performance. Journal of Small Business Management, 59(5), 976–994. https://doi.org/10.1080/00472778.2019.1704484

22) Man, T. W. Y., Lau, T., & Chan, K. F. (2002). The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. Journal of Business Venturing, 17(2), 123–142. https://doi.org/10.1016/S0883-9026(00)00058-6

23) Miao, C., Qian, S., & Ma, D. (2017). The relationship between entrepreneurial self-efficacy and firm performance: A meta-analysis of main and moderator effects. Journal of Small Business Management, 55(1), 87–107. https://doi.org/10.1111/jsbm.12240

24) Mitchelmore, S., & Rowley, J. (2010). Entrepreneurial competencies: A literature review and development agenda. International Journal of Entrepreneurial Behavior & Research, 16(2), 92–111. https://doi.org/10.1108/13552551011026995

25) Naldi, L., Nordqvist, M., Sjöberg, K., & Wiklund, J. (2020). Entrepreneurial orientation and financial performance: The role of family involvement and generational change. Journal of Business Venturing, 35(1), 105997. https://doi.org/10.1016/j.jbusvent.2019.105997

26) OECD. (2022). Financing SMEs and Entrepreneurs 2022: An OECD Scoreboard. OECD Publishing. https://doi.org/10.1787/29ae16d3-en

27) Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

28) Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. Behavior Research Methods, 40(3), 879–891. https://doi.org/10.3758/BRM.40.3.879

DOI: 10.5281/zenodo.15260987

29) Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. European Journal of Work and Organizational Psychology, 16(4), 353–385. https://doi.org/10.1080/13594320701595438

30) Sánchez, J. (2013). The impact of an entrepreneurship education program on entrepreneurial competencies and intention. Journal of Small Business Management, 51(3), 447–465. https://doi.org/10.1111/jsbm.12025

31) Sarstedt, M., Ringle, C. M., & Hair, J. F. (2016). Partial least squares structural equation modeling. In Homburg, C., Klarmann, M., & Vomberg, A. (Eds.), Handbook of Market Research. Springer. https://doi.org/10.1007/978-3-319-05542-8_15-1

32) Sharma, P., Leung, T. Y., & Kingshott, R. P. J. (2022). Micro-entrepreneurial performance in emerging markets: Linking market orientation to resource integration and entrepreneurial passion. Journal of Business Research, 139, 1055–1067. https://doi.org/10.1016/j.jbusres.2021.10.066

33) Shefrin, H. (2007). Behavioral Corporate Finance: Decisions that Create Value. McGraw-Hill/Irwin.

34) Shepherd, D. A., Williams, T. A., & Patzelt, H. (2021). Thinking about entrepreneurial decision making: Review and research agenda. Academy of Management Journal, 64(1), 1–43. https://doi.org/10.5465/amj.2019.0435

35) Tambunan, T. (2019). Recent evidence of the development of micro, small and medium enterprises in Indonesia. Journal of Global Entrepreneurship Research, 9(1), 18. https://doi.org/10.1186/s40497-018-0140-4

36) Teece, D. J. (2021). Dynamic capabilities and strategic management: Organizing for innovation and growth. Oxford University Press. https://doi.org/10.1093/oso/9780199545124.001.0001

37) Wang, Y., & Fang, E. (2023). Strategic budgeting and entrepreneurial performance: Moderating role of financial uncertainty. International Journal of Entrepreneurial Behavior & Research, 29(1), 112–130. https://doi.org/10.1108/IJEBR-09-2021-0723

38) Welter, F., Baker, T., Audretsch, D. B., & Gartner, W. B. (2017). Everyday entrepreneurship — A call for entrepreneurship research to embrace entrepreneurial diversity. Entrepreneurship Theory and Practice, 41(3), 311–321. https://doi.org/10.1111/etap.12258

39) Wiseman, R. M., & Bromiley, P. (2016). Toward a model of risk in declining organizations: A behavioral risk-taking perspective. Academy of Management Review, 21(1), 135–170. https://doi.org/10.5465/amr.1996.9602161564

40) Xheneti, M., Karki, S., & Madden, A. (2019). Negotiating business and family demands within a patriarchal society – The case of women entrepreneurs in the Nepalese context. Entrepreneurship & Regional Development, 31(3-4), 259–278. https://doi.org/10.1080/08985626.2018.1551792

41) Yu, X., Liu, C., & Song, H. (2023). Entrepreneurial finance, dynamic capability and firm performance: A mediation model. Journal of Small Business Economics, 60(2), 581–604. https://doi.org/10.1007/s11187-021-00507-2

42) Yunis, M., Tarhini, A., & Kassar, A. (2021). Mindful entrepreneurial behavior for business sustainability: The mediating role of dynamic capabilities. Technological Forecasting and Social Change, 163, 120421. https://doi.org/10.1016/j.techfore.2020.120421