

STRATEGIC PLANNING WITH COMPREHENSIVE BUDGETING TO OPTIMIZE MANAGEMENT CONTROL IN THE MSME SECTOR POST-PANDEMIC: A LITERATURE REVIEW

Mediaty ^{a*)}, Asri Usman ^{a)}, Aunneke Julisda Paembonan ^{a)}, Zuhawah Yuliah Ilham ^{a)}, Namra ^{a)}

Universitas Hasanuddin, Makasar, Indonesia

^{*)} Corresponding Author: mediaty@unhas.ac.id

Article history: received 21 August 2025; revised 02 September 2025; accepted 04 October 2025

DOI: <https://doi.org/10.33751/jhss.v9i2.12961>

Abstract. This study aims to analyze the application of strategic planning with a comprehensive budgeting approach in optimizing management control in Micro, Small, and Medium Enterprises (MSMEs) during the post-pandemic recovery period. By synthesizing various recent studies, this study identifies the main factors that influence the effectiveness of integrated budgeting as well as the challenges faced by MSMEs in aligning strategies and control mechanisms. This study uses the Systematic Literature Review (SLR) method with data sources obtained through Publish or Perish, Science Direct, IEEE, Scopus, Taylor and Francis, Google Scholar, and ProQuest, resulting in 40 reputable journals published in 2021–2025 that are relevant to the research topic. The findings show that strategic planning and comprehensive budgeting play an important role in improving decision-making, accountability, and the managerial performance of MSMEs. However, its success is greatly influenced by leadership commitment, managerial competence, digital readiness, and government policy support. The main challenges faced by MSMEs include financial constraints, low managerial literacy, and inadequate technological infrastructure, which hinder the integration of planning, budgeting, and control. This study implies the need for government support through policies and programs to increase the capacity of MSMEs to strengthen strategic financial management. For MSME actors, the integration of strategic planning and comprehensive budgeting can be a means to achieve efficiency, resilience, and sustainable business growth in the post-pandemic era. This study offers a new perspective on the relationship between strategic planning, comprehensive budgeting, and management control in the MSME sector, highlighting their synergy as drivers of organizational recovery and sustainability.

Keywords: *strategic planning; comprehensive budgeting; management control; SMEs; post-pandemic.*

I. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play an important role in supporting national economic growth and creating jobs for the community. According to data from the Ministry of Cooperatives and SMEs, MSMEs contribute more than 60% to Indonesia's Gross Domestic Product (GDP) and absorb more than 97% of the national workforce. However, the COVID-19 pandemic that has swept the world since 2020 has had a significant impact on the sustainability of MSMEs. Disruptions to the supply chain, a decline in market demand, and limited business mobility have caused many MSMEs to face a decline in income and difficulties in maintaining financial stability. These conditions require MSME players to implement adaptive management strategies and more integrated control systems in order to survive and grow in the post-pandemic recovery period (Martinez et al., 2023; McCann et al., 2023; Satpathy et al., 2025).

In this context, strategic planning is an important tool for MSMEs in setting long-term directions and allocating resources effectively. Good strategic planning not only requires the ability to determine the vision and mission of the organization, but also requires integration between strategic

objectives and systematic financial management. On the other hand, comprehensive budgeting serves as a key management control tool that helps organizations plan, monitor, and evaluate financial and operational performance (Bedford et al., 2022; Pham & Vu, 2025). The integration of strategic planning and comprehensive budgeting allows MSMEs to maintain a balance between flexibility and financial discipline, so that business strategies can be implemented effectively with the support of a strong control system (Isibor et al., 2022; Santosuosso, 2025).

Post-pandemic, MSMEs face new challenges in the form of economic uncertainty, changes in consumer behavior, and an increasing need for business process digitalization. In this situation, the ability of MSMEs to implement adaptive and information-based management control becomes increasingly important. Management control not only functions as a performance evaluation tool, but also as an organizational learning mechanism to adjust strategies to changes in the business environment (Graña-Alvarez et al., 2024; Quesado et al., 2024). Therefore, the integration of strategic planning and a comprehensive budgeting system is an important foundation for ensuring business continuity, operational efficiency, and increased competitiveness of MSMEs in the digital era.

However, various studies show that the implementation of strategic planning and budget-based control systems in MSMEs still faces many obstacles. Limited financial resources, low managerial literacy, and lack of public policy support are often the main obstacles (Erdiaw-Kwasie et al., 2023; Yao, Zhingang Liu, 2023). In addition, many MSMEs still rely on traditional budgeting practices that are less flexible to market dynamics and do not fully support data-driven decision making (Molete et al., 2024; Nguyen Ngoc et al., 2025). This results in the strategy evaluation and resource allocation processes often being suboptimal. On the other hand, the adoption of digital technology in the planning and control processes is still limited, thereby reducing the organization's ability to monitor performance in real-time (Ebhotu et al., 2024; Holl & Rama, 2024).

These conditions emphasize the need for a more comprehensive understanding of the factors that influence the effectiveness of strategic planning with comprehensive budgets and the challenges faced by MSMEs in its implementation. The Systematic Literature Review (SLR) approach was used in this study to identify and synthesize the results of previous studies in a systematic and structured manner, with the aim of providing a comprehensive overview of the determining factors for success and obstacles in the implementation of management control systems in the MSME sector post-pandemic. Through this approach, the study is expected to contribute theoretically to the development of strategic management and financial control concepts in the context of small and medium-sized enterprises, while also offering practical implications for policymakers and business actors in strengthening business competitiveness and sustainability.

II. RESEARCH METHODS

This study uses a Systematic Literature Review (SLR) approach to identify, analyze, and synthesize previous research results related to the application of strategic planning with comprehensive budgeting in management control in the MSME sector post-pandemic. This approach was chosen because it provides a comprehensive and structured understanding of the phenomenon under study and reveals research gaps. The literature search was conducted through various reputable databases, namely Publish or Perish, ScienceDirect, IEEE Xplore, Scopus, Taylor & Francis Online, Google Scholar, and ProQuest. The keywords used included combinations of terms such as "Strategic Planning," "Comprehensive Budgeting," "Management Control," "MSMEs," and "Post-Pandemic." The articles were limited to the period 2021–2025 to maintain the relevance of the post-COVID-19 pandemic context and only included peer-reviewed scientific publications focusing on aspects of strategic planning, budgeting systems, and MSME management control.

The search yielded 40 reputable scientific articles that met the inclusion criteria for further analysis. The selection process was carried out by screening the titles, abstracts, and full text to ensure suitability with the research focus. Data analysis was conducted using a thematic approach, in which the literature was grouped based on two main focuses, namely (1) factors that influence the effectiveness of implementing strategic planning

and comprehensive budgeting (RQ1) and (2) challenges faced by MSMEs in its implementation (RQ2). The synthesis results were then presented in the form of thematic tables and narrative discussions that highlighted the interrelationships between variables, resulting in a comprehensive conceptual understanding of budget integration and management control strategies in the context of SME recovery after the pandemic.

III. RESULTS AND DISCUSSION

Table 1 shows Research Question (RQ) 1, which explains the factors that influence the implementation of strategic planning with a comprehensive budget to optimize management control in the MSME sector after the pandemic.

Table 1. Discussion of Research Question (RQ) 1

Factor	Sub-Factors
Leadership and Managerial Characteristics	1. Commitment of leaders to organizational strategy (Ebhotu et al., 2024; Erdiaw-Kwasie et al., 2023; Meier et al., 2025; Nguyen Ngoc et al., 2025) 2. Managerial capability in integrating strategy and budgeting (Isibor et al., 2022; Meier et al., 2025; Nguyen Ngoc et al., 2025) 3. Adaptive and results-oriented leadership style (Erdiaw-Kwasie et al., 2023; Martinez et al., 2023) 4. Data-driven and risk-based decision-making (Molete et al., 2024; Pham & Vu, 2025)
Budget Participation and Managerial Performance	1. Involvement of managers and staff in budget preparation (Alhasnawi et al., 2023; Fortuna, 2021; Isibor et al., 2022) 2. Transparency and communication in the budgeting process (Fortuna, 2021; Pham & Vu, 2025) 3. Participatory feedback and evaluation mechanisms (Alhasnawi et al., 2023; Santosuosso, 2025)
Management Control System (MCS)	1. Alignment of strategic goals with performance indicators (Graña-Alvarez et al., 2024; Pham & Vu, 2025; Quesado et al., 2024) 2. Utilization of formal control tools such as Balanced Scorecard and KPIs (Isibor et al., 2022; Quesado et al., 2024; Santosuosso, 2025) 3. Performance feedback mechanisms for continuous improvement (Graña-Alvarez et al., 2024; Pham & Vu, 2025)
Strategic Planning and Financial Decision-Making	1. Development of strategic plans based on risk analysis (Isibor et al., 2022; Lotfi et al., 2024; Molete et al., 2024) 2. Budget prioritization aligned with long-term objectives (Ebhotu et al., 2024; Nguyen Ngoc et al., 2025) 3. Efficient resource allocation based on performance evaluation (Isibor et al., 2022; Meier et al., 2025)
Organizational Capacity and Human Resources	1. Financial and accounting competency of MSME leaders (Gyamera et al., 2023; Swalih et al., 2024) 2. Management literacy and performance control understanding (Gyamera et al., 2023; Martinez et al., 2023; Swalih et al., 2024) 3. Availability of post-pandemic training and mentoring programs (Gyamera et al., 2023; Martinez et al., 2023; Swalih et al., 2024)
Technology and Digitalization	1. Utilization of digital accounting information systems (Ebhotu et al., 2024; Holl & Rama, 2024; Molete et al., 2024) 2. Integration of cloud-based budgeting

	systems for control efficiency (Holl & Rama, 2024; Isibor et al., 2022) 3. Use of data analytics in strategic decision-making (Ebhota et al., 2024; Molete et al., 2024)
Post-Pandemic External Environment	1. Economic uncertainty and global market volatility (McCann et al., 2023; Satpathy et al., 2025; Yao, Zhingang Liu, 2023) 2. Changes in fiscal policy and government support for MSMEs (Martinez et al., 2023; Satpathy et al., 2025) 3. Supply chain disruptions and adaptation to new consumption patterns (McCann et al., 2023; Miocevic, 2023)
Sustainability and Strategic Innovation	1. Integration of sustainability principles in strategy and budgeting (Quesado et al., 2024; Shields et al., 2024) 2. Business model innovation based on resource efficiency (Adam & Alarifi, 2021; Swalih et al., 2024) 3. Implementation of environmental management accounting for long-term cost control (Quesado et al., 2024; Swalih et al., 2024)

Source: Research Results 2025

Leadership and Managerial Characteristics

Many factors influence the successful implementation of strategic planning and comprehensive budgeting in the MSME sector, one of which is leadership and managerial characteristics. Visionary and highly committed leadership determines the direction of organizational strategy and the effectiveness of management control (Ebhota et al., 2024; Nguyen Ngoc et al., 2025). MSME leaders with strong managerial skills are able to integrate strategic objectives into financial plans and ensure the efficient use of resources (Erdiaw-Kwasie et al., 2023; Meier et al., 2025). In addition, an adaptive leadership style helps organizations navigate post-pandemic economic uncertainty and maintain operational stability. Data-driven decision-making and risk analysis also play an important role in supporting flexible yet controlled strategic planning (Molete et al., 2024; Pham & Vu, 2025).

Budget Participation and Managerial Performance

Budget participation factors contribute significantly to the effectiveness of management control in SMEs. The involvement of managers and staff in the budget preparation process can increase ownership of organizational targets and foster commitment to achieving goals (Alhasnawi et al., 2023; Fortuna, 2021). Transparency and open communication in the budgeting process also strengthen internal trust and reduce interdepartmental conflicts (Pham & Vu, 2025). Furthermore, active participation allows each organizational unit to convey relevant operational information, resulting in a more realistic budget that is responsive to market changes. The participatory feedback and evaluation process encourages greater accountability and improves the financial control cycle from period to period (Santosuosso, 2025).

Management Control System (MCS)

The Management Control System (MCS) is the core framework for linking strategic planning and comprehensive budget implementation. Alignment between strategic objectives and performance indicators is the basis for creating effective controls (Pham & Vu, 2025; Quesado et al., 2024).

The use of formal control tools such as the Balanced Scorecard and Key Performance Indicators (KPIs) helps management monitor financial and non-financial results in a measurable way (Isibor et al., 2022; Santosuosso, 2025). Feedback mechanisms in control systems also enable continuous evaluation of spending efficiency and target achievement (Graña-Alvarez et al., 2024). Thus, MCS functions not only as a reporting tool but also as an organizational learning system to improve long-term performance.

Strategic Planning and Financial Decision Making

Structured strategic planning is the foundation for MSMEs in setting the direction and priorities for budget management. This process requires careful risk analysis and resource planning so that the organization's strategy is in line with its financial capabilities (Isibor et al., 2022; Molete et al., 2024). The integration of strategy and financial decisions enables optimal resource allocation to achieve long-term goals (Ebhota et al., 2024; Nguyen Ngoc et al., 2025). Lotfi et al. (2024) emphasize that data-based performance analysis helps managers assess the effectiveness of budget utilization and supports strategy adjustments when economic conditions change. Thus, the synergy between strategic planning and financial decisions strengthens the competitiveness of MSMEs and maintains financial resilience after the pandemic.

Organizational Capacity and Human Resources

Organizational capacity and human resource (HR) competencies play an important role in the successful implementation of a comprehensive planning and control system. Good financial literacy enables MSME leaders to understand the link between strategy and financial control (Gyamera et al., 2023; Swalih et al., 2024). Trained HR can translate strategic objectives into realistic and measurable operational budget plans (Adam & Alarifi, 2021; Martinez et al., 2023). In addition, continuous training and mentoring improve the ability to adapt to changes in the business and technological environment (Gyamera et al., 2023; Swalih et al., 2024). Weaknesses in organizational capacity often lead to errors in planning, delays in reporting, and weak internal controls.

Technology and Digitalization

The role of technology is becoming increasingly important in connecting strategy, budgeting, and management control. The use of digital accounting information systems accelerates the budget preparation and monitoring process and minimizes manual errors (Ebhota et al., 2024; Holl & Rama, 2024). Molete et al. (2024) explain that cloud-based systems can improve efficiency and transparency in financial control. The adoption of technology also enables real-time integration of financial data across organizational units (Isibor et al., 2022). Holl & Rama (2024) add that digitization supports data-driven decision making, which is key to strategic adaptation in the post-pandemic era.

Post-Pandemic External Environment

The external environment has a significant influence on the effectiveness of strategic planning and management control implementation. Global economic uncertainty and market demand fluctuations are major challenges for MSMEs in maintaining consistency in strategy implementation (McCann

et al., 2023; Satpathy et al., 2025; Yao, Zhingang Liu, 2023). Government policy support, access to financing, and economic stimulus have been proven to encourage business sustainability and budget control stability (Martinez et al., 2023; Satpathy et al., 2025). However, supply chain disruptions and changes in consumer behavior require business strategy adaptation for SMEs to remain relevant in the market (McCann et al., 2023; Miocevic, 2023).

Sustainability and Strategic Innovation

Sustainability and innovation factors are increasingly prominent in the post-pandemic context. Integrating sustainability principles into strategic planning helps MSMEs balance economic, social, and environmental aspects (Quesado et al., 2024; Shields et al., 2024). Resource efficiency-based business model innovation supports long-term competitiveness and increases stakeholder trust (Adam & Alarifi, 2021; Swalih et al., 2024). The environmental management accounting approach also helps MSMEs identify cost-saving opportunities and reduce environmental risks in their operations (Quesado et al., 2024; Swalih et al., 2024). Thus, sustainability and innovation are not only adaptation strategies but also an integral part of modern management control.

Table 2 shows *Research Question (RQ) 2*, which explains the challenges faced by MSMEs in implementing strategic planning with a comprehensive budget as a post-pandemic management control tool.

Table 2. Discussion of Research Question (RQ) 2

Challenges
1. Limited financial resources (Erdiaw-Kwasie et al., 2023; Martinez et al., 2023; McCann et al., 2023; Satpathy et al., 2025; Yao, Zhingang Liu, 2023)
2. Lack of managerial capacity and financial competence (Adam & Alarifi, 2021; Gyamera et al., 2023; Nguyen Ngoc et al., 2025; Swalih et al., 2024)
3. Limited human resources in budget preparation and control (Gyamera et al., 2023; Isibor et al., 2022; Martinez et al., 2023)
4. Resistance to organizational change and new budgeting systems (Ebhotu et al., 2024; Meier et al., 2025; Miocevic, 2023)
5. Lack of top management support in implementing strategic control systems (Ebhotu et al., 2024; Nguyen Ngoc et al., 2025; Pham & Vu, 2025)
6. Limited technological infrastructure and digitalization (Ebhotu et al., 2024; Holl & Rama, 2024; Isibor et al., 2022; Molette et al., 2024)
7. Difficulties in integrating strategy, budgeting, and management control (Graña-Alvarez et al., 2024; Pham & Vu, 2025; Quesado et al., 2024; Santosuosso, 2025)
8. Complexity in comprehensive budgeting and performance analysis (Lotfi et al., 2024; Molette et al., 2024; Nguyen Ngoc et al., 2025)
9. Economic uncertainty and changing market conditions in the post-pandemic era (Martinez et al., 2023; McCann et al., 2023; Satpathy et al., 2025; Yao, Zhingang Liu, 2023)
10. Limited access to financing and fiscal policy support for MSMEs (Erdiaw-Kwasie et al., 2023; Martinez et al., 2023; Satpathy et al., 2025)
11. Lack of internal communication and interdepartmental coordination (Alhasnawi et al., 2023; Isibor et al., 2022; Santosuosso, 2025)
12. Weak change management in strategic and budgeting adaptation processes (Adam & Alarifi, 2021; Ebhotu et al., 2024; Meier et al., 2025)
13. Limited accounting information systems and inaccurate financial data (Ebhotu et al., 2024; Holl & Rama, 2024; Molette et al., 2024)
14. Lack of organizational culture based on accountability and performance evaluation (Gyamera et al., 2023; Pham & Vu, 2025; Quesado et al., 2024)
15. Insufficient training and professional mentoring for MSME practitioners (Adam & Alarifi, 2021; Gyamera et al., 2023; Martinez et al., 2023; Swalih et al., 2024)

16. Dependence on traditional and inflexible budgeting patterns (Fortuna, 2021; Nguyen Ngoc et al., 2025; Pham & Vu, 2025)
17. Lack of integration of sustainability principles in long-term financial planning (Quesado et al., 2024; Shields et al., 2024; Swalih et al., 2024)
18. Insufficient government policy support for digital transformation and MSME control systems (Martinez et al., 2023; McCann et al., 2023; Satpathy et al., 2025)

Source: Research Findings 2025

The implementation of strategic planning with a comprehensive budget in the MSME sector is not without various challenges that affect its effectiveness and success. A deep understanding of these challenges is important so that MSME players can prepare more targeted risk mitigation measures and adaptive strategies. By identifying potential obstacles in the implementation process, organizations can strengthen their management control systems, adjust resources, and increase the chances of successful implementation of post-pandemic strategic policies.

One of the main challenges found in various studies is limited financial resources and access to financing. MSMEs generally operate with limited capital and have weak capitalization capabilities to support data-based planning and control (Erdiaw-Kwasie et al., 2023; McCann et al., 2023; Yao, Zhingang Liu, 2023). The implementation of a comprehensive budgeting system often requires additional costs for consulting, training, and process digitization. Martinez et al. (2023) emphasize that MSMEs in developing countries are highly dependent on fiscal support and government policies to cover capital shortfalls in long-term planning. Therefore, financial constraints are a major obstacle that can disrupt the effectiveness of management control systems and reduce the quality of strategic decisions.

In addition to financial constraints, the lack of managerial capacity and human resource (HR) competencies also pose serious challenges. Nguyen Ngoc et al. (2025) and Gyamera et al. (2023) explain that many MSME actors do not yet have adequate financial literacy and managerial analysis skills to manage strategic budgets. Swalih et al. (2024) add that the lack of formal training and professional assistance makes the budget preparation and monitoring processes less than optimal. Adam & Alarifi (2021) also found that managers' low understanding of the importance of strategic planning leads to errors in resource allocation and weak internal control. Thus, strengthening HR capacity is a crucial element to ensure alignment between business strategy and budget control.

The next challenge arises in the form of resistance to change and weak support from top management. Meier et al. (2025) and Ebhotu et al. (2024) explain that most MSMEs still maintain traditional budgeting systems that are inflexible to changes in the business environment. Ebhotu et al. (2024) and Pham & Vu (2025) add that without the full support and commitment of leaders, the implementation of strategic planning and performance-based control systems will be difficult to run effectively.

An organizational culture that is not accustomed to data-based evaluation practices also slows down the process of adapting to modern control methods. As a result, system changes towards more integrated control often face social and psychological barriers within the organization. From a

technological perspective, limitations in digital infrastructure and accounting information system integration are also major obstacles.

Ebhota et al. (2024) and Holl & Rama (2024) mention that many MSMEs do not yet have adequate digital infrastructure to support real-time budget preparation and reporting. Molete et al. (2024) found that digital accounting or cloud-based budgeting systems require equipment investment and training that not all MSMEs are ready to fulfill. Another challenge arises from the inability to integrate data between units or between strategic plans and actual financial reports (Pham & Vu, 2025; Santosuosso, 2025). These limitations cause control information to become out of sync, which ultimately reduces the accuracy of performance analysis.

Furthermore, economic uncertainty and changes in the external environment after the pandemic also put significant pressure on the effectiveness of MSME strategic planning. Satpathy et al. (2025) and McCann et al. (2023) highlight that market demand fluctuations, inflation, and changes in fiscal policy and interest rates make it difficult for MSMEs to set medium-term financial targets. Martinez et al. (2023) explain that MSMEs must face additional challenges in the form of supply chain disruptions and changes in consumer behavior. These conditions require a high degree of flexibility in budget control in order to adapt to the dynamics of an unstable business environment.

Finally, the lack of integration of sustainability principles and strategic innovation is a new obstacle faced by MSMEs in the era of economic recovery. Quesado et al. (2024) and Shields et al. (2024) show that most MSMEs have not internalized the concept of sustainability in their financial planning. Swalih et al. (2024) add that although environmental management accounting practices can improve long-term efficiency, their implementation remains low due to limited resources and managerial awareness.

In fact, incorporating sustainability aspects into a comprehensive budgeting system has the potential to strengthen business reputation while ensuring long-term financial stability. Overall, the results of RQ2 show that the main challenges in implementing strategic planning with comprehensive budgeting in MSMEs lie in financial limitations, weak human resource capacity, resistance to change, and inadequate digital infrastructure.

Externally, economic uncertainty and low policy support exacerbate these conditions. Therefore, the successful implementation of a post-pandemic management control system requires a collaborative approach between MSME actors, the government, and supporting institutions, so that these challenges can be minimized and the management control system can run effectively and sustainably.

IV. CONCLUSIONS

The results of the literature study show that the implementation of strategic planning with a comprehensive budget in post-pandemic MSME management control is influenced by various internal and external factors. Internal factors include leadership and managerial characteristics,

budget participation, management control systems, human resource capacity, and the use of digital technology in the financial planning and reporting process. External factors include government policy support, post-pandemic economic conditions, and market dynamics that require rapid adaptation to changes in the business environment. The integration of strategy, budgeting, and control has proven to be key to improving operational efficiency and ensuring the sustainability of MSMEs in the era of economic recovery.

However, the implementation of comprehensive strategies and budgets also faces various challenges, such as financial constraints, low managerial literacy, resistance to change, and suboptimal digital infrastructure. In addition, economic uncertainty and a lack of public policy support slow down the transformation of effective control systems. Therefore, government support through incentives, training, and mentoring for MSME actors is needed to improve their strategic and financial management capacities. This study contributes to academics and practitioners by strengthening the understanding of the importance of synergy between strategic planning and comprehensive budgeting in creating an adaptive, efficient, and sustainable management control system.

REFERENCES

- [1] Adam, N. A., & Alarifi, G. (2021). Innovation practices for survival of small and medium enterprises (SMEs) in the COVID-19 times: the role of external support. *Journal of Innovation and Entrepreneurship*, 10(1).
- [2] Alhasnawi, M. Y., Mohd Said, R., Mat Daud, Z., & Muhammad, H. (2023). Enhancing managerial performance through budget participation: Insights from a two-stage A PLS-SEM and artificial neural network approach (ANN). *Journal of Open Innovation: Technology, Market, and Complexity*, 9(4), 100161.
- [3] Bedford, D. S., Speklé, R. F., & Widener, S. K. (2022). Budgeting and employee stress in times of crisis: Evidence from the Covid-19 pandemic. *Accounting, Organizations and Society*, 101.
- [4] Ebhota, O. S., Hongxing, Y., & Sampene, A. K. (2024). Investigating the influence of digital transformation, budgeting, and budgetary control on the financial performance of SMEs. *Scientific African*, 26, e02429.
- [5] Erdiaw-Kwasie, M. O., Abunyewah, M., Yusif, S., & Arhin, P. (2023). Small and medium enterprises (SMEs) in a pandemic: A systematic review of pandemic risk impacts, coping strategies and resilience. *Heliyon*, 9(10), e20352. <https://doi.org/10.1016/j.heliyon.2023.e20352>
- [6] Fortuna, C. P. A. (2021). Budgeting practices: Its impact on the profitability of small and medium enterprises in Isabela. *Universal Journal of Accounting and Finance*, 9(3), 336–346.
- [7] Graña-Alvarez, R., Gomez-Conde, J., Lopez-Valeiras, E., & González-Loureiro, M. (2024). Management control systems, business financial literacy and financial leverage in business-incubated start-ups. *British Accounting Review*, 56(6).

- [8] Gyamera, E., Abayaawien Atuilik, W., Eklemet, I., Henry Matey, A., Tetteh, L. A., & Kwasi Apreku-Djan, P. (2023). An analysis of the effects of management accounting services on the financial performance of SMEs: The moderating role of information technology. *Cogent Business and Management*, 10(1).
- [9] Holl, A., & Rama, R. (2024). SME digital transformation and the COVID-19 pandemic: a case study of a hard-hit metropolitan area. *Science and Public Policy*, 51(6), 1212–1226. <https://doi.org/10.1093/scipol/scae023>
- [10] Isibor, N. J., Ibeh, A. I., Ewim, C. P.-M., Sam-Bulya, N. J., Adaga, E. M., & Achumie, G. O. (2022). A Financial Control and Performance Management Framework for SMEs: Strengthening Budgeting, Risk Mitigation, and Profitability. *International Journal of Multidisciplinary Research and Growth Evaluation*, 3(1), 761–768.
- [11] Lotfi, R., Vaseei, M., Ali, S. S., Davoodi, S. M. R., Bazregar, M., & Sadeghi, S. (2024). Budget allocation problem for projects with considering risks, robustness, resiliency, and sustainability requirements. *Results in Engineering*, 24(April), 102828.
- [12] Martinez, L. B., Scherger, V., & Orazi, S. (2023). Post-pandemic performance of micro, small and medium-sized enterprises: A Self-organizing Maps application. *Cogent Business and Management*, 10(3).
- [13] McCann, F., McGeever, N., & Yao, F. (2023). SME viability in the COVID-19 recovery. *Small Business Economics*, 61(3), 1053–1074.
- [14] Meier, A., Eller, R., & Peters, M. (2025). Creating competitiveness in incumbent small- and medium-sized enterprises: A revised perspective on digital transformation. *Journal of Business Research*, 186(October 2024), 115028.
- [15] Miocevic, D. (2023). Investigating strategic responses of SMEs during COVID-19 pandemic: A cognitive appraisal perspective. *BRQ Business Research Quarterly*, 26(4), 313–326. <https://doi.org/10.1177/23409444211005779>
- [16] Molete, O. B., Mokhele, S. E., Ntombela, S. D., & Thango, B. A. (2024). The Impact of IT Strategic Planning Process on SME Performance: A Systematic Review. *Businesses*, 5(1), 2. <https://doi.org/10.3390/businesses5010002>
- [17] Nguyen Ngoc, M., Nguyen Thanh, C., & Nguyen Van, N. (2025). The impact of financial decisions and manager characteristics to firm's financial performance in SMEs: Bibliometric and systematic analysis. *Social Sciences and Humanities Open*, 12(February), 101899.
- [18] Pham, Q. H., & Vu, K. P. (2025). Management accounting control system and risk governance in public sector organizational resilience enhancement. *Cogent Social Sciences*, 11(1).
- [19] Quesado, P., Silva, R., & Oliveira, H. C. (2024). Management Control Systems and Sustainability: A Bibliometric Analysis. *Sustainability (Switzerland)*, 16(12).
- [20] Santosuosso, P. (2025). *Journal of Open Innovation: Technology, Market, and Complexity* A practical approach to designing internal control systems in SMEs.
- [21] satpathy, A. sanatan, Sahoo, S. kumar, Mohanty, A., & Mohanty, P. P. (2025). Strategies for enhancements of MSME resilience and sustainability in the post-COVID-19 era. *Social Sciences and Humanities Open*, 11(October 2024), 101223.
- [22] Shields, J. F., Bilsky, B. A., & Shelleman, J. M. (2024). SMEs, Sustainability, and Capital Budgeting. *Small Business Institute Journal*, 20, 1–7.
- [23] Swalih, M. M., Ram, R., & Tew, E. (2024). Environmental management accounting for strategic decision-making: A systematic literature review. *Business Strategy and the Environment*, 33(7), 6335–6367. <https://doi.org/10.1002/bse.3828>
- [24] Yao, Zhingang Liu, Y. (2023). Since January 2020, Elsevier has created a COVID-19 resource center with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource center is hosted on Elsevier Connect, the company's public news and information platform. *Jurnal Pre-Proof*, January.