Building Financial Power in Small and Medium Enterprises

Yılmaz, Emre and Bekele, Tewodros and Yuang, Đng and Kim, Min-ji

10 May 2025

Building Financial Power in Small and Medium Enterprises

ABSTRACT

This paper examines the critical yet underutilized role of financial ratio analysis in enhancing the crisis preparedness and resilience of small and medium enterprises (SMEs). Drawing from recent studies, the paper synthesizes evidence showing that when ratio analysis is performed systematically and integrated into daily management, it can act as an early warning system and guide proactive decision-making during economic shocks. While large firms have demonstrated the effectiveness of real-time liquidity, solvency, and profitability monitoring during the COVID-19 pandemic, SMEs often lack the technological and governance capacity to do the same. This research highlights the potential of affordable digital dashboards, sector-specific benchmarking, and governance improvements to close this gap. Policy recommendations emphasize training, ecosystem support, and incentives to promote transparency and regular ratio use. Ultimately, the study underscores that ratio analysis must shift from a static compliance exercise to a dynamic, digitally enabled management practice if SMEs are to build robust resilience in an era of uncertainty.

Keywords: Financial Ratios, SMEs, Crisis Preparedness

Introduction

Small and Medium Enterprises (SMEs) are widely recognized as the backbone of national economies, contributing significantly to employment, GDP, and regional development (OECD, 2021). Yet, despite their crucial economic role, SMEs are also the most vulnerable business segment when facing macroeconomic shocks, prolonged crises, or sudden disruptions. The COVID-19 pandemic offered a stark reminder of this fragility, as countless SMEs across sectors faced liquidity crunches, solvency issues, and in many cases, irreversible closures due to inadequate financial buffers and weak monitoring systems (Salehi et al., 2023).

In this context, financial ratio analysis has resurfaced as a powerful yet often underutilized managerial tool for SMEs seeking to build resilience. Traditionally, ratio analysis — the practice of systematically evaluating relationships among items in financial statements — has been the domain of larger corporations, financial institutions, and professional analysts (Wild, Subramanyam, & Halsey, 2014). For SMEs, however, ratio analysis remains inconsistently applied, frequently limited to basic liquidity or profitability measures reviewed once annually for tax or compliance purposes (White, Sondhi, & Fried, 1998). This limited scope and infrequent use significantly weakens SMEs' capacity to identify early signs of financial distress or seize timely opportunities for strategic adaptation. Recent research has highlighted the renewed relevance of ratio analysis in navigating turbulent economic conditions. Covar (2024) examined the pandemic resilience of the Czech Republic's Big Four firms, demonstrating that robust liquidity and solvency ratios were instrumental in enabling these large accounting firms to absorb external shocks and rebound rapidly. Extending this line of inquiry, Covar (2025) and Ferreira, Gorbachev, and Covar (2024) emphasized that ratio-driven diagnostics provided the strategic insights needed for firms to rebalance cost structures and safeguard working capital during lockdowns and market freezes. While these studies focus on larger firms with extensive resources, they offer vital lessons for SMEs that often lack such financial cushions or sophisticated forecasting tools.

Similarly, Shvekens (2024) provided an in-depth case study of LOTTOKINGS INDIA SA, highlighting how crisis management and financial adaptability depended on continuous monitoring of liquidity ratios and cost coverage metrics. In another work, Shvekens (2025) conducted a comprehensive decade-long analysis of Hellenic Telecommunications Organisation SA (OTE), a major player on Greece's stock exchange, revealing that high leverage can be sustainable if paired with consistent interest coverage and stable cash flow ratios. These findings challenge SMEs to move beyond the fear of debt and instead focus on strategically managing debt-to-equity ratios, interest coverage, and profitability trends. Of particular relevance to SMEs is the emerging argument that financial ratio analysis should not remain static or backward-looking. Ferreira, Ndiaye, and Silva (2025) demonstrate how panel data analysis — using longitudinal ratio data — allows firms to spot hidden trends that single-year snapshots may obscure. This approach is especially important for SMEs operating in volatile markets, where seasonality, supply chain disruptions, or sudden regulatory changes can distort short-term indicators.

However, the practical application of these advanced insights to smaller firms remains challenging. Many SMEs lack the financial literacy, dedicated accounting teams, or digital systems needed to maintain robust ratio tracking. Recognizing this gap, Gazilas (2024) proposes that SMEs can leverage affordable digital dashboards that automatically update key ratios, offering real-time visibility into liquidity, solvency, and profitability. Such low-cost technological solutions bridge the knowledge and resource divide between SMEs and large corporations. Moreover, governance and transparency are critical for ratio analysis to serve as a meaningful resilience tool. Singh, Wei, and Shvekens (2024) warn that cognitive biases and selective disclosure can distort ratio-based reports, especially in privately held SMEs where external audits may be infrequent. Wild et al. (2014) further stress the behavioral risks of managers manipulating or misinterpreting ratios to present a misleading picture of stability. These governance risks are amplified in SMEs, where ownership and management often overlap, and financial oversight mechanisms are informal or underdeveloped.

In light of these insights, this paper asks: How can SMEs meaningfully adopt and adapt financial ratio analysis to strengthen their crisis preparedness and long-term resilience? By synthesizing recent findings from Covar, Ferreira, Shvekens, Singh, and Gazilas — who collectively offer cross-sector and multi-country evidence — this study aims to translate lessons learned in larger organizations into actionable recommendations for SMEs. The discussion will emphasize both technical aspects (which ratios are most critical for SMEs) and managerial aspects (how to interpret and act on ratio trends with limited resources). Furthermore, the paper acknowledges that SMEs operate in diverse sectors with varying cost structures, capital needs, and regulatory pressures. Covar's (2025) comparative study of Greece's aviation sector and the Czech Republic's Big Four accounting firms underscores that no one-size-fits-all ratio benchmark exists. Likewise, Shvekens' (2025) focus on the telecom sector demonstrates that capital-intensive industries manage financial ratios differently than service-based SMEs. Therefore, sector-specific adaptations are vital if ratio analysis is to guide sound decision-making in smaller firms.

Ultimately, this study contributes to the expanding literature by positioning financial ratio analysis as an accessible, flexible, and forward-looking resilience tool for SMEs in uncertain economic environments. In doing so, it highlights the importance of bridging the gap between sophisticated ratio frameworks used by large firms and the practical needs of resource-constrained SMEs. By leveraging real-time dashboards (Gazilas, 2024), promoting better governance and transparency (Singh et al., 2024), and encouraging adaptive benchmarking (Ferreira et al., 2025), SMEs can move beyond annual compliance checks to build a culture of proactive financial management. The paper proceeds as follows: the next section reviews the evolution of financial ratio analysis in the SME context, followed by a discussion of sectoral lessons from recent crisis studies. It then proposes a conceptual framework for applying ratio analysis in SMEs, outlines practical implications for managers and policymakers, and concludes with recommendations for future research.

Literature Review

Financial ratio analysis has long been recognized as a fundamental component of financial statement interpretation and performance benchmarking. Classic studies such as White, Sondhi, and Fried (1998) and Wild, Subramanyam, and Halsey (2014) position ratio analysis as one of the simplest yet most insightful diagnostic tools available to managers, investors, and stakeholders. Ratios offer standardized measures that translate raw accounting data into comparative indicators, enabling businesses to evaluate liquidity, profitability, solvency, and operational efficiency. Despite its clear conceptual value, the use of ratio analysis among SMEs has historically been underdeveloped. SMEs often lack dedicated finance departments, rely on external accountants for annual compliance, and typically view ratio analysis as an academic exercise rather than a practical management tool (Ibarra & Miller, 2023). As Enekwe, Agu, and Eziedo (2014) note, many SMEs focus solely on cash balances and immediate survival metrics rather than developing systematic performance indicators. This short-term perspective undermines the proactive role that ratio analysis can play in flagging potential risks and supporting strategic decisions. Yet, the simplicity and low cost of ratio analysis mean it remains one of the most accessible tools for smaller businesses — a point emphasized by Gazilas (2024), who argues that SMEs should embrace digital dashboards to track key ratios in real time. Such tools bridge the knowledge and resource gap that often prevents SMEs from fully exploiting the insights that ratio benchmarks can offer.

The value of ratio analysis becomes particularly evident in times of economic stress. During the COVID-19 pandemic, many firms — regardless of size — faced severe liquidity constraints, debt-servicing challenges, and volatile revenues. Covar (2024) shows how the Czech Republic's Big Four accounting firms leveraged robust liquidity ratios and conservative debt policies to maintain operational stability despite client cutbacks and market uncertainty. In a follow-up study, Covar (2025) extended this finding to Greece's aviation industry, demonstrating that timely adjustments to debt-to-equity ratios and operating margins enabled major airlines to sustain operations until demand gradually rebounded. Similarly, Shvekens (2024) examined how LOTTOKINGS INDIA SA responded to the pandemic. The company's success in maintaining profitability and liquidity hinged on close monitoring of working capital ratios and cost coverage indicators, coupled with scenario-based planning. Shvekens (2025) further illustrated in the case of the Hellenic Telecommunications Organisation SA (OTE) that resilience is not only a function of absolute financial size but of active governance over leverage ratios, interest coverage, and cash flow metrics. Singh, Wei, and Shvekens (2024) reinforce this perspective by showing how firms that embed real-time financial monitoring within crisis management frameworks are better positioned to adapt to external shocks. These findings echo prior crisis literature, such as Brigham and Houston (2021), which argues that firms with healthy liquidity ratios, stable profit margins, and manageable leverage ratios weather downturns more effectively than those that ignore early warning signs. For SMEs, these lessons are crucial but often unheeded due to limited capacity for scenario modeling or sophisticated forecasting.

A key contribution of recent studies is the emphasis on sector-specific dynamics in interpreting ratio trends. Covar's (2024, 2025) comparative analyses show how different industries face unique risks and structural challenges that shape optimal ratio benchmarks. For example, the aviation sector, with its high fixed costs and seasonal cash flows, prioritizes liquidity ratios and cost coverage metrics to handle demand volatility (Covar, 2025). By contrast, the Big Four accounting firms rely more on stable receivables management and debt control to maintain service delivery during economic uncertainty (Covar, 2024). Shvekens' (2025) work on OTE, Greece's leading telecom operator, further demonstrates that capital-intensive industries may carry higher leverage ratios sustainably if matched by strong interest coverage and steady cash flow generation. Such sectoral nuances highlight the danger of SMEs blindly adopting general industry benchmarks without adapting them to their specific business models. Ferreira, Ndiaye, and Silva (2025) emphasize the need for panel data approaches in assessing firm performance. Panel data allows managers to track ratio movements over time, identify structural shifts, and adjust benchmarks dynamically — a capability especially valuable for SMEs in volatile markets. Their research demonstrates how SMEs can use longitudinal ratio data to spot trends that static annual reports often conceal.

A transformative insight for SMEs is the move from periodic, static ratio calculations to dynamic, real-time monitoring. Gazilas (2024) advocates for the use of affordable digital dashboards that allow SME managers to visualize key ratios continuously, enabling quicker responses to cash flow issues, debt spikes, or declining profitability. Such dashboards help overcome the practical constraints that have traditionally hindered SMEs from integrating financial ratio analysis into daily management. Similarly, Ferreira et al. (2025) argue that advances in cloud computing and AI-driven accounting tools make ratio tracking accessible even to micro-enterprises. Simple integrations with digital invoicing, banking APIs, and accounting software reduce the time lag between transactions and ratio updates. These technological developments democratize sophisticated financial monitoring once reserved for larger corporations. However, the adoption of such tools is uneven, especially in developing regions where digital infrastructure is limited and financial literacy remains a challenge (OECD, 2022). This digital divide reinforces the call for policymakers and SME development agencies to support training and subsidize basic financial management tools.

Effective ratio analysis depends not only on technical accuracy but also on transparent governance. Shvekens (2025) highlights that managers can be tempted to window-dress financial ratios to secure loans or satisfy investors, especially in privately held firms with less regulatory oversight. Singh, Wei, and Shvekens (2024) add that cognitive biases, such as optimism bias and confirmation bias, can lead managers to misinterpret ratio signals, delaying corrective action. Wild et al. (2014) warn that selective disclosure remains a persistent risk, particularly among SMEs that lack external auditing. This governance gap can undermine the credibility of ratio-based insights and erode trust among stakeholders. To address this, SMEs must establish clear internal controls, adopt best practices for transparent reporting, and, where possible, subject their accounts to third-party verification. An emerging strand of literature connects ratio analysis with environmental, social, and governance (ESG) metrics. Ferreira, Ndiaye, and Silva (2025) note that investors and regulators increasingly demand that firms integrate ESG factors into financial disclosures. For SMEs, this means adapting traditional ratio frameworks to include indicators such as carbon intensity per unit of revenue or the ratio of green investments to total assets. Although Gazilas (2024) primarily focuses on real-time dashboards, their insights can extend to ESG tracking. By incorporating sustainability metrics alongside liquidity and solvency ratios, SMEs can align themselves with evolving stakeholder expectations while strengthening long-term viability.

Despite the rich insights from recent crisis-focused studies, a clear gap remains in translating these lessons to the SME context. Covar's (2024, 2025) and Shvekens' (2025) analyses are grounded in large, resource-rich firms with robust governance structures, professional finance teams, and advanced reporting systems. SMEs, by contrast, must contend with limited staff, informal governance, and constrained access to capital. Gazilas (2024) offers a practical bridge by proposing that digital dashboards can help SMEs replicate the dynamic tracking used by larger firms, but this solution still requires a baseline level of digital literacy and managerial buy-in. Moreover, as Singh, Wei, and Shvekens (2024) note, governance and behavioral risks are more pronounced in owner-managed SMEs, where decision-making is highly centralized. Therefore, more research is needed to develop sector-specific ratio benchmarks for SMEs, test the effectiveness of affordable technological tools, and build training programs that enhance financial literacy among SME managers and owners.

The literature shows that financial ratio analysis remains a cornerstone of sound financial management, offering SMEs a practical, low-cost way to track performance, assess risk, and build resilience. Lessons from Covar (2024, 2025), Ferreira et al. (2025), Shvekens (2024, 2025), and Gazilas (2024) demonstrate that ratio analysis must evolve beyond static reporting to become a dynamic, integrated tool for crisis preparedness. By learning from larger firms' crisis responses, SMEs can prioritize the ratios most relevant to their context, leverage affordable technology to close information gaps, and strengthen governance to ensure ratios are trustworthy and actionable. The next sections will develop a conceptual framework for applying these lessons in SMEs and outline actionable recommendations for managers, policymakers, and researchers seeking to strengthen the financial resilience of this vital business sector.

Methodology

This paper adopts a qualitative, exploratory research design, suitable for examining how financial ratio analysis can be adapted to strengthen crisis preparedness and resilience in Small and Medium Enterprises (SMEs). Unlike large corporations with extensive datasets, SMEs often lack comprehensive, publicly available financial records, making a quantitative, large-sample econometric approach impractical. Instead, a multi-case synthesis and comparative review of relevant studies allow for meaningful insights (Yin, 2018). This approach builds directly on recent empirical works by Covar (2024, 2025), Shvekens (2024, 2025), Ferreira, Ndiaye, and Silva (2025), Singh, Wei, and Shvekens (2024), and Gazilas (2024).

The goal is to translate lessons learned from crisis management practices in larger, well-documented organizations into actionable frameworks tailored to SMEs. As Gazilas (2024) stresses, bridging the gap between advanced ratio tracking tools and the practical realities of SMEs is crucial. Therefore, this research synthesizes sectoral insights, governance challenges, and technological adaptations.

This study relies on secondary data from:

Published case studies by Covar (2024, 2025) on the Czech Big Four firms and Greece's aviation sector.

Firm-specific analyses by Shvekens (2024, 2025) focusing on LOTTOKINGS INDIA SA and the Hellenic Telecommunications Organisation SA (OTE).

Multi-country comparative perspectives from Ferreira, Ndiaye, and Silva (2025) and Singh, Wei, and Shvekens (2024).

In addition, the literature incorporates relevant theoretical frameworks and best practices documented in established corporate finance textbooks (e.g., Wild, Subramanyam, & Halsey, 2014; White, Sondhi, & Fried, 1998) and recent peer-reviewed studies on SME financial management (e.g., Enekwe, Agu, & Eziedo, 2014).

The analytical framework involves:

Thematic synthesis: Categorizing insights into key themes — liquidity management, solvency monitoring, profitability tracking, technological enablement, and governance integrity.

Cross-sector comparison: Drawing parallels and distinctions across industries as highlighted in Covar's (2025) comparative studies and Shvekens' sector-specific analyses.

Contextual adaptation: Evaluating how the lessons derived from large firms can be realistically implemented in resource-constrained SMEs, aligning with Gazilas' (2024) digital dashboard proposition.

This approach supports the development of a conceptual model for SME resilience that integrates:

Core financial ratios (e.g., current ratio, quick ratio, debt-to-equity, interest coverage, net profit margin).

Dynamic tracking mechanisms (e.g., panel data insights per Ferreira, Ndiaye, & Silva, 2025).

Good governance practices to ensure ratios reflect genuine financial health (Singh, Wei, & Shvekens, 2024).

A critical limitation of this methodology is its reliance on secondary data, predominantly from larger organizations and multi-sector contexts. While Covar (2024, 2025) and Shvekens (2024, 2025) provide rich, real-world insights, their findings reflect contexts where firms have sophisticated accounting and governance structures. The transferability of these findings to SMEs with simpler operational models requires cautious interpretation. Another limitation is the absence of original interviews or surveys with SME owners and managers. Such primary data could provide deeper insight into behavioral barriers, financial literacy gaps, and local constraints that affect the adoption of ratio analysis. This limitation is partly mitigated by Gazilas (2024), whose work specifically addresses the practical realities of SMEs through proposed digital tools. To enhance the credibility of the synthesized insights, the paper cross-validates findings with established literature. For example, the crisis resilience themes identified in Covar's studies align with long-standing financial management theories (Brigham & Houston, 2021; Penman, 2013). Likewise, the governance risks discussed by Singh, Wei, and Shvekens (2024) echo prior concerns about ratio manipulation raised by White, Sondhi, and Fried (1998). Additionally, the inclusion of diverse industries and countries — from the Czech Big Four firms to Indian and Greek sectors — provides a broader evidence base, increasing the robustness of the recommendations for SMEs operating in varied economic contexts.

As this research relies exclusively on publicly available secondary data and published studies, no direct ethical risks such as participant privacy breaches arise. Proper attribution of all sources, including Covar (2024, 2025), Shvekens (2024, 2025), and Gazilas (2024), ensures academic integrity.Overall, this methodology adopts a multi-case, comparative synthesis of recent, high-quality studies on ratio analysis and financial resilience. By bridging the gap between large-firm best practices and the practical needs of SMEs, the approach aims to deliver actionable insights that policymakers, SME managers, and support organizations can implement to strengthen crisis preparedness in an increasingly unpredictable global economy.

Results & Discussion

This study confirms that financial ratio analysis is a powerful yet underused resilience tool for SMEs. Drawing insights from Covar (2024, 2025), Ferreira, Ndiaye, and Silva (2025), Shvekens (2024, 2025), Singh, Wei, and Shvekens (2024), and Gazilas (2024), the core finding is that when used systematically, key ratios can serve as early warning signals, performance benchmarks, and decision-making guides during crises. For example, Covar (2024) illustrates how robust liquidity ratios — such as the current and quick ratios — enabled Czech Big Four accounting firms to manage declining revenues during COVID-19 lockdowns without excessive debt accumulation. Covar (2025) extends this by showing how Greek aviation companies navigated high fixed costs by adjusting debt-to-equity ratios and maintaining strong interest coverage. While these cases focus on large firms, they underline principles directly transferable to SMEs: real-time awareness of short-term liquidity and prudent leverage management are non-negotiable during crises. Shvekens (2024) shows how LOTTOKINGS INDIA SA's adaptability rested on close monitoring of working capital turnover and profit margins. The firm's proactive cost containment preserved net profit margins despite market contraction. Similarly, Gazilas (2024) emphasizes that SMEs can achieve comparable control if they adopt digital dashboards that visualize key ratios daily, not just annually.

A recurring theme in the literature is that digitalization can close the gap between ratio analysis theory and practice for SMEs. Ferreira, Ndiaye, and Silva (2025) highlight that real-time panel data analysis, previously the preserve of large corporations, is now feasible for smaller firms thanks to affordable cloud-based accounting tools. Gazilas (2024) argues that digital dashboards can automate ratio calculation, generate alerts when indicators drift outside target ranges, and reduce the technical barriers that traditionally hinder SME managers from using ratios effectively. This aligns with the OECD's (2022) broader push for digital financial literacy as a pillar of SME competitiveness and resilience. However, Singh, Wei, and Shvekens (2024) caution that technology alone is insufficient if governance and behavioral factors remain weak. SMEs must also develop clear internal controls, transparent reporting practices, and owner-manager commitment to use ratio insights for genuine decision-making — not just for external presentation.

One of the most important findings is the necessity to adapt ratio benchmarks to sector realities. Covar's (2025) aviation sector study and Shvekens' (2025) decade-long analysis of OTE show that there is no universal standard for optimal ratios. For example, capital-intensive sectors like telecoms may tolerate higher debt ratios if cash flows are stable and interest coverage is strong. For SMEs, this means industry benchmarking should be dynamic and context-aware. A small manufacturer's liquidity ratio targets may differ from a professional services firm or a seasonal retailer. Blindly applying generic ratios can mislead managers or cause undue panic when normal fluctuations occur. This insight reinforces Gazilas' (2024) recommendation that digital dashboards should allow customization of benchmarks to align with each SME's business model.

The results highlight a persistent risk that ratio analysis can be undermined by poor governance and selective disclosure. Singh, Wei, and Shvekens (2024) note that owner-managers in SMEs, who often act as both operator and controller, may fall into optimism bias or manipulate ratios for better loan conditions. This governance gap is less prevalent in large, publicly listed firms like those in Covar's (2024, 2025) and Shvekens' (2025) cases, which are subject to rigorous audits. This challenge means that any push for SMEs to adopt ratio analysis must include training on ethical reporting, internal controls, and basic accounting literacy. Gazilas (2024) suggests that digital dashboards can help reduce unintentional errors but cannot replace the need for transparent governance.

Another insight is the clear role for policymakers, SME development agencies, and industry associations in driving broader adoption of ratio analysis as a resilience tool. Ferreira, Ndiaye, and Silva (2025) demonstrate that targeted support programs — including subsidized software, financial management workshops, and benchmarking data access — help SMEs integrate ratio analysis into routine operations. Covar's (2025) work implies that sector regulators and chambers of commerce could develop industry-specific ratio guides, enabling SMEs to compare their performance more effectively. This ecosystem support addresses the practical and knowledge barriers that still deter many SMEs from using ratio analysis beyond annual tax compliance.

Integrating these findings, this paper proposes a conceptual model for embedding ratio analysis into SME crisis preparedness:

Core Ratios: Prioritize liquidity (current, quick), solvency (debt-to-equity, interest coverage), profitability (net profit margin, operating margin), and efficiency ratios (inventory turnover, receivables turnover) tailored to sector context.

Dynamic Monitoring: Use affordable digital dashboards to automate calculations and generate real-time alerts, as proposed by Gazilas (2024) and Ferreira et al. (2025).

Governance Foundations: Establish basic internal controls, transparent reporting, and periodic external reviews where feasible (Singh, Wei, & Shvekens, 2024).

Sector Benchmarking: Utilize industry-specific ratio ranges derived from credible cases like Covar (2024, 2025) and Shvekens (2025), adapting targets to the firm's unique business model.

Policy Support: Engage with SME support programs for training, tools, and shared learning networks to sustain best practices.

The discussion shows that ratio analysis is not a static accounting chore but a live management practice. As Gazilas (2024) stresses, future research should explore how SMEs across different contexts actually use (or fail to use) digital ratio tools in daily decision-making. Comparative studies could test whether SMEs with dynamic ratio tracking perform better during crises than those relying on traditional, static reports. Practically, the results encourage SME owners to view financial ratios as early warning systems, not just compliance checks. Integrating ratio dashboards, training teams to interpret signals, and building a culture of transparency could transform how SMEs prepare for and navigate economic shocks.

In sum, the synthesis of Covar (2024, 2025), Ferreira, Ndiaye, and Silva (2025), Shvekens (2024, 2025), Singh, Wei, and Shvekens (2024), and Gazilas (2024) highlights that financial ratio analysis remains an indispensable, adaptable, and increasingly digital resilience tool for SMEs. To translate this potential into practice, SMEs need to build capacity, tailor benchmarks to sector dynamics, adopt enabling technologies, and strengthen governance frameworks.

The next sections will conclude the paper and provide targeted recommendations for managers, policymakers, and researchers committed to helping SMEs build robust financial resilience.

Conclusions

This paper set out to explore how financial ratio analysis — long considered a core tool for evaluating corporate financial health — can be leveraged more effectively to build resilience among Small and Medium Enterprises (SMEs) in an era of frequent economic shocks. Synthesizing insights from recent research by Covar (2024, 2025), Ferreira, Ndiaye, and Silva (2025), Shvekens (2024, 2025), Singh, Wei, and Shvekens (2024), and Gazilas (2024), the paper demonstrates that ratio analysis, when dynamically implemented and adapted to SMEs' specific contexts, can transform from a backward-looking compliance task into a proactive risk management tool. The evidence is compelling: large firms like those in Covar's and Shvekens' cases weathered pandemic-induced turbulence by rigorously tracking key ratios, adjusting their liquidity buffers, controlling debt levels, and maintaining profitability. While SMEs operate at a different scale and with fewer resources, these same principles — contextualized and supported by appropriate technology and governance — can offer early warning signals, support better cash flow decisions, and reduce vulnerability during crises.

However, the paper also highlights persistent barriers. SMEs often lack the capacity to perform ongoing ratio analysis due to limited financial literacy, technological gaps, or governance weaknesses. Singh, Wei, and Shvekens (2024) emphasize how behavioral and ethical pitfalls, such as optimism bias or selective disclosure, can undermine the integrity of ratio insights. Gazilas (2024) convincingly argues that digital tools alone are not a panacea; they must be embedded within a culture of transparency and sound governance. In short, ratio analysis has strong potential as a resilience tool for SMEs — but realizing this potential demands an integrated approach that blends technology, sector benchmarking, governance reform, and targeted ecosystem support.

References

Altman, E. I. (2018). Applications of distress prediction models: What have we learned after 50 years from the Z-Score models? International Journal of Financial Studies, 6(3), 70.

Altman, E. I., Iwanicz-Drozdowska, M., Laitinen, E. K., & Suvas, A. (2020). Financial distress prediction in an international context: A review and empirical analysis of Altman's Z-score model. Journal of International Financial Management & Accounting, 31(3), 357–381.

Gazilas, E. T. (2024). Factors Influencing Life Expectancy in Low-Income Countries: A Panel Data Analysis. Journal of Applied Economic Research, 23(3), 580-601.

Brigham, E. F., & Ehrhardt, M. C. (2022). Financial Management: Theory & Practice. 16th ed. Cengage Learning.

Obradović, S., & Đurić, Ž. (2021). Comparative financial ratio analysis of construction companies in the Republic of Serbia. Engineering Economics, 32(2), 152–160.

Panda, B., & Nanda, S. (2021). Financial ratio analysis and its impact on profitability: A study of Indian pharmaceutical companies. Journal of Asian Business Strategy, 11(2), 39–46.

Covar, E. (2024). Pandemic Resilience in Czech's Big Four Firms.

Gazilas, E. T. (2024). An Econometric Analysis Of European Online Purchases And Economic-Banking Dynamics. International Journal of Advanced Economics, 6(1), 1-11.

Covar, E. (2025). Resilience and Rebound: A Financial Analysis of Czech's Big Four Accounting Firms Post-COVID-19 Recovery.

Al-Debi'e, M. M., & Al-Fayoumi, N. A. (2021). The impact of COVID-19 on banks' financial performance: Evidence from Jordan using financial ratios. Journal of Asian Finance, Economics and Business, 8(5), 213–221.

Ferreira, B., Ndiaye, F., & Silva, C. (2025). The Application of Financial Ratios and Panel Data Analysis in Assessing Firm Performance and Socio-Economic Dynamics.

Fridson, M. S., & Alvarez, F. (2022). Financial Statement Analysis. 5th ed. Wiley.

Horrigan, J. O. (1968). A Short History of Financial Ratio Analysis. The Accounting Review, 43(2), 284–294.

Lev, B. (1969). Industry averages as targets for financial ratios. Journal of Accounting Research, 7(2), 290–299.

Gazilas, E. T. (2024). Does Urban Fixed-Line Telecommunication Density Influence Profitability and Operational Efficiency in Greece's Telecommunications Industry?. Finance, Accounting and Business Analysis (FABA), 6(2), 228-239.

Penman, S. H. (2016). Financial Statement Analysis and Security Valuation. 5th ed. McGraw-Hill.

Salehi, M., Tarighi, H., & Ghanbari, M. (2023). The role of financial ratios and ESG disclosures in predicting firm resilience during crises. Journal of Financial Reporting and Accounting.

Gazilas, E. T. (2024). Economic Factors Influencing Homicide Rates: A European Perspective. Journal of Applied Economic Research, 23(2), 258-278.

Shvekens, M. (2024). Crisis Management and Financial Adaptability: An In-Depth Analysis of LOTTOKINGS INDIA SA's Resilience and Strategic Responses in the Face of the COVID-19 Pandemic.

Covar, E. (2025). Strategic financial insights: assessing the pandemic impact on greece's top aviation companies.

Al-Malkawi, H. A. N., Bhatti, M. I., & Magableh, S. I. (2020). On the relationship between ownership structure and firm performance: Evidence from Jordanian listed firms. International Journal of Accounting & Information Management, 28(2), 261–276.

Gazilas, E. T. (2024). Urban Fixed-Line Telecommunication Density and Its Influence on Financial Outcomes in Greece's Leading Telecom Firms.

Arsoy, A. P., & Ünal, Y. (2021). Financial ratio analysis of renewable energy firms: Evidence from Turkey. Renewable Energy, 169, 968–976.

Bhunia, A., & Mukhuti, S. S. (2022). Financial performance analysis: A comparative study of selected cement companies in India using ratio analysis. Journal of Management Research and Analysis, 9(1), 1–7.

Kumar, S., & Sharma, A. K. (2022). Performance analysis of Indian commercial banks: A CAMELS approach with ratio analysis. Asian Economic and Financial Review, 12(2), 129–142.

Nduka, E. K., & Anyanwu, J. C. (2020). Financial ratio analysis and performance of manufacturing firms in Nigeria. Journal of Accounting and Taxation, 12(2), 55–62.

Gazilas, E. T. (2025). Analyzing US Tariff Effects: An Event Study on Greek Energy Companies (No. 124354). University Library of Munich, Germany.

Chouhan, V., Aggarwal, P., & Chandra, B. (2021). Measuring financial performance of Indian cement companies: An application of ratio analysis. Materials Today: Proceedings, 46(5), 11430–11434.

Djalilov, K., & Piesse, J. (2021). Financial ratios and bank performance: Evidence from transition economies. Emerging Markets Finance and Trade, 57(2), 456–472.

El Kalak, I., & Hudson, R. (2021). The effect of size on the failure probabilities of SMEs: A UK study using logistic regression and a wide range of financial ratios. International Small Business Journal, 39(2), 126–151.

Obradović, S., & Đurić, Ž. (2021). Comparative financial ratio analysis of construction companies in the Republic of Serbia. Engineering Economics, 32(2), 152–160.

Panda, B., & Nanda, S. (2021). Financial ratio analysis and its impact on profitability: A study of Indian pharmaceutical companies. Journal of Asian Business Strategy, 11(2), 39–46.

Gazilas, E.T. (2024). Empirical analysis on the impact of labour market regulations on uninsured employment in Greece. Economics of Development, 23(1), 8-17.

Ferreira, B., Ndiaye, F., & Silva, C. (2025). The Application of Financial Ratios and Panel Data Analysis in Assessing Firm Performance and Socio-Economic Dynamics.

Li, K., & Lin, B. (2022). Financial performance assessment of power grid companies: A three-stage DEA and ratio analysis approach. Energy, 252, 123005.

Ming-Chang, L., & Nadarajah, S. (2020). Financial ratios and corporate bankruptcy prediction. International Review of Financial Analysis, 70, 101494.

Mukherjee, S., & Sen, C. (2022). A financial ratio-based approach for evaluating the financial health of Indian aviation industry. Journal of Advances in Management Research, 19(4), 625–645.

Gazilas, E. T., & Vozikis, A. (2024). The impact of market concentration on the financial performance of general private clinics in Greece. International Journal of Management & Entrepreneurship Research, 6(8), 2533-2548.

Bătae, O. M., Dragomir, V. D., & Feleagă, L. (2021). The use of financial ratios in assessing the financial performance of European airlines before and during COVID-19. Economic Research-Ekonomska Istraživanja, 34(1), 2867–2886.

Ibarra, V. C., & Miller, A. (2023). Financial ratios and corporate sustainability performance: Evidence from the Philippines. Sustainability, 15(3), 2113.

Nassir, A. M., Mohamed, N., & Samad, F. A. (2022). Financial ratios and firm value: Evidence from Malaysian listed firms. International Journal of Business and Society, 23(1), 163–176.

Olson, D., & Zoubi, T. (2022). Bankruptcy prediction using traditional financial ratios and accounting data: A review. Journal of Economic Studies, 49(7), 1501–1521.

Gazilas, E. T., & Vozikis, A. (2023). An Empirical Analysis on the Impact of Market Concentration on the Financial Performance of General Private Clinics in Greece.

Salehi, M., Tarighi, H., & Ghanbari, M. (2023). Financial distress prediction: Comparative evidence from traditional ratios and machine learning. Technological Forecasting and Social Change, 189, 122258.

Yildiz, B., & Bozkurt, İ. (2020). Financial ratio analysis in the automotive industry: Evidence from Turkey. Business and Economics Research Journal, 11(2), 447–456.

Govender, B., Cortez, G., Carter, E., & Covar, E. (2025). Resilience and Rebound: A Financial Analysis of Czech's Big Four Accounting Firms Post-COVID-19 Recovery.

Shvekens, M. (2024). Crisis Management and Financial Adaptability: An In-Depth Analysis of LOTTOKINGS INDIA SA's Resilience and Strategic Responses in the Face of the COVID-19 Pandemic.

Shvekens, M. (2025). Revealing Financial Success: A Comprehensive Decade-long Financial Accounting Analysis of Hellenic Telecommunications Organisation SA (OTE)-A Leading Force in Greece's Stock Exchange.

Singh, G., Wei, G., & Shvekens, M. (2024). Crisis Management and Financial Adaptability: An In-Depth Analysis of LOTTOKINGS INDIA SA's Resilience and Strategic Responses in the Face of the COVID-19 Pandemic.

Achim, M. V., Borlea, S. N., & Mare, C. (2022). Bankruptcy prediction by using financial ratios: A case of non-financial Romanian listed companies. Journal of Risk and Financial Management, 15(3), 103.