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RESILIENCE OF INDONESIAN SMES: A SYSTEMATIC REVIEW AND AGENDA FOR FUTURE RESEARCH

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Abstract

This study systematically reviews the literature on the resilience of small and medium enterprises (SMEs) in Indonesia to provide a comprehensive understanding of theoretical foundations, variables, and research trends. Using data from the Web of Science and Scopus databases, 114 relevant articles were selected and analyzed through a content analysis approach. The study adopts the AMO (Antecedents, Mediators, Moderators, Outcomes) framework to identify key themes, research gaps, and propose future research directions. Findings indicate that most studies are quantitative, relying on survey data analyzed with PLS-SEM, while qualitative approaches remain limited. Commonly used theories include the Resource-Based View, Dynamic Capabilities View, Theory of Planned Behaviour, and Technology-Organisation-Environment framework, emphasizing internal capabilities, adaptability, and contextual factors. Research has predominantly focused on antecedents such as innovation capability and strategic orientation, and outcomes like performance and crisis resilience, with limited attention to mediating and moderating variables. This review offers valuable insights for scholars, policymakers, and practitioners by proposing an integrative conceptual model of SME resilience and highlighting future research opportunities to enhance SME resilience in the Indonesian context.

Keywords: SME Resilience; Business Sustainability; AMO Framework; Indonesia

INTRODUCTION

Resilience, as a multidisciplinary concept, was first introduced by Holling (1973) within the field of ecology to describe the capacity of systems to respond to unexpected environmental changes and return to their original state. In the business context, resilience has gained increasing relevance, particularly following the global financial crisis of 2008–2009 (Annarelli & Nonino, 2016). Research on resilience in small and medium-sized enterprises (SMEs) has shown a marked upward trend over the past few decades (Kantur, 2015; Williams & Vorley, 2017).

Business resilience refers to a firm's ability to adapt, endure, and grow despite experiencing major disruptions or crises (Williams & Vorley, 2017). For SMEs—often more vulnerable to severe challenges such as market uncertainty and economic shocks—this issue has become a critical area of scholarly inquiry (Ates & Bititci, 2011; Burnard & Bhamra, 2011; Kantur, 2015). However, to date, no universally accepted definition of resilience in management and business studies exists, complicating efforts to establish a consistent conceptual framework. This definitional ambiguity challenges scholars to integrate diverse approaches and theoretical lenses to better understand how SMEs sustain and enhance performance in turbulent environments (Tognazzo et al., 2017; Williams et al., 2013).

Various theoretical frameworks have been employed to analyse SME resilience, including the Resource-Based View (RBV), network theory, risk management approaches, and dynamic capabilities theory. For example, Annarelli and Nonino (2016) examined corporate resilience from the perspective of supply chain management, while Linnenluecke (2015) explored organisational resilience through the lens of dynamic capabilities. In the SME context, Tognazzo et al. (2017) emphasised that resilience is deeply shaped by local dynamics such as cultural norms, institutional structures, and specific market challenges.

Research on SME resilience is particularly vital given the sector's significant economic role, especially in developing countries such as Indonesia, where SMEs are central to driving economic growth and empowering local communities (Alberti et al., 2018; Dahles & Susilowati, 2015; Sabatino, 2016). In Indonesia, SMEs contribute substantially to gross domestic product (GDP) and provide livelihoods for millions. Despite this pivotal role, the sector faces considerable obstacles, including limited access to finance, inadequate infrastructure, and market volatility—conditions that are often exacerbated during global crises such as the COVID-19 pandemic (Page & Söderbom, 2015). Against this backdrop, SME resilience has become a focal point in both academic discourse and public policy, as the sector's ability to withstand economic shocks is closely linked to broader economic growth and social stability in developing economies (Linnenluecke, 2017; Williams & Vorley, 2017).

The importance of investigating SME resilience in Indonesia is reflected in the growing need to understand how such enterprises navigate crises and survive amidst pervasive uncertainty. Several studies have examined key determinants of SME resilience, including government policy support, innovation, business strategy, and organisational adaptability to market change (Falciola et al., 2023; Saiful-Haq et al., 2024; Taneo et al., 2022). For instance, Taneo et al. (2022) revealed that non-financial government programmes—such as state-facilitated procurement and online training initiatives—significantly improved SME performance and resilience. Moreover, Falciola et al. (2023) underscored the relevance of a resilience index that integrates various factors influencing SME outcomes during crises, particularly investment in performance dimensions that bolster firm endurance.

In the Indonesian context, recent scholarship has also highlighted the pivotal role of collaborative models involving SMEs, government agencies, and financial institutions to enhance access to finance and strengthen resilience-supportive policies. For example, Saiful-Haq et al. (2024) emphasised the strategic potential of Cooperative Bank Models (SCBs) for SMEs, which expand financial inclusion and foster effective collaboration frameworks that reinforce the sector's resilience and long-term sustainability. These initiatives suggest that Indonesia can cultivate a more robust economic resilience architecture—enabling SMEs to play a more prominent role in fostering sustainable and inclusive national development.

To provide a comprehensive understanding of the literature on SME resilience in Indonesia, this study employs a systematic review guided by the PRISMA methodology. A systematic review is instrumental in synthesising existing research, identifying gaps in the literature, and mapping key themes within a particular field (Moher et al., 2009). This approach enables an in-depth analysis of research trends, theoretical frameworks, and methodological approaches used in studies on SME resilience, with a specific focus on the Indonesian context. Accordingly, this study aims to address the following research questions:

RQ1. What is the profile of prior research on resilience in Indonesian SMEs, including publication trends, journal domains, research methodologies, and units of analysis?

RQ2. What are the major research themes and theoretical foundations underlying SME resilience studies in Indonesia?

RQ3. How are the key variables mapped using the AMO framework (antecedents, mediators/moderators, and outcomes) in the context of SME resilience studies in Indonesia?

RQ4. What are the implications of this review for guiding future research directions to deepen the understanding of SME resilience in Indonesia?

This article is structured into five main sections. Section 1 provides an introduction, outlining the background and significance of the study. Section 2 describes the research methodology, including the systematic review protocol covering review planning, inclusion and exclusion criteria, data collection procedures, and data analysis and synthesis techniques. Section 3 presents the review findings, encompassing research profiles, dominant themes, theoretical underpinnings, and a multilevel integrative framework based on the AMO approach. Section 4 offers a discussion of the findings and proposes future research directions. Finally, Section 5 concludes the study by highlighting its contributions, limitations, and implications for both policy and practice.

RESEARCH METHODS (Calibri Light 11, Bold, spasi 1,5, spacing before 12 pt, after 0 pt)

This study adopts a Systematic Literature Review (SLR) approach to explore the body of literature on SME resilience in Indonesia. The SLR method was selected due to its capacity to produce systematic, objective, and transparent results, offering replicability that enhances research rigour (Kitchenham, 2004; Talwar et al., 2020). The method integrates quantitative analysis to map publication profiles and qualitative analysis to delve into the content of the literature, identify major themes, and map key variables using the AMO framework (antecedents, mediators/moderators, and outcomes) (Seth et al., 2020; Tukamuhabwa et al., 2015).

The research process commenced with a comprehensive literature search across leading databases such as Scopus and Web of Science, supplemented by manual searches through backward and forward citation tracking of frequently cited articles. The search was restricted to publications from 2000 to 2024, aligning with the broader emergence of SME resilience discourse in the early 2000s (Linnenluecke, 2017). Articles were screened based on inclusion criteria: studies must focus on SME resilience within the Indonesian context, be peer-reviewed journal publications, and align with the research objectives. This strategy ensured the inclusion of only high-quality literature in the analysis (Tukamuhabwa et al., 2015).

The SLR procedure followed a structured sequence of stages, including planning, establishing selection criteria, defining search strategies, screening, and conducting data analysis and synthesis (Ferenhof et al., 2014; Tranfield et al., 2003). Quantitative analysis was conducted to examine publication trends, journal domains, employed methodologies, and regional classifications. In parallel, qualitative analysis explored underlying theories, core issues addressed, and the contributions of the literature to advancing understanding of SME resilience in Indonesia. Through this combined approach, the study aims to offer a comprehensive overview of the current state of the literature and to develop a forward-looking research agenda grounded in empirical gaps and thematic patterns.

Review planning

Careful planning is a critical step in conducting a Systematic Literature Review (SLR), as it ensures that the review process is comprehensive, objective, and methodologically rigorous (Anggadwita & Indarti, 2023). A systematic protocol during the planning phase involves the formulation of specific and relevant research questions, which serve as a guiding framework throughout the review process—from literature search to data synthesis (Higgins et al., 2008; Khanra et al., 2020). Thoughtful planning not only enhances methodological accuracy but also strengthens the validity and transparency of the findings produced. Accordingly, this study identifies four main objectives that frame the focus of this SLR:

1.To map the existing research profile on SME resilience in Indonesia, including publication trends, publishers, journal domains, research methodologies employed, and units of analysis used.
2. To identify the key theoretical foundations underpinning SME resilience studies and the relevant research approaches applied.
3. To develop an AMO-based framework (antecedents, mediators/moderators, and outcomes) to systematically map the core variables within SME resilience literature.
4. To propose a future research agenda based on gaps identified in the existing body of literature.

Data collection and selection

Data collection began with a comprehensive literature search to identify articles relevant to the topic of SME resilience in Indonesia. In the initial stage, the search employed the following keywords: ("small and medium enterprise" OR "SME" OR "small business" OR "medium business") AND ("resilience" OR "sustainability" OR "adaptability" OR "robustness") AND ("Indonesia" OR "Indonesian"). Based on this query, a total of 174 articles were retrieved from the Web of Science (WOS) database and 231 articles from Scopus.

During the first screening stage, only journal articles were retained, while book chapters, conference papers, review articles, and conference reviews were excluded. Furthermore, only articles published in English were considered, covering the entire available publication period, with the earliest detected article dated 2009. This initial filtering resulted in 89 articles from WOS and 177 articles from Scopus. Subsequently, both lists were merged, and a deduplication process was undertaken to eliminate any overlapping entries. After this step, a total of 219 unique articles remained for further review.

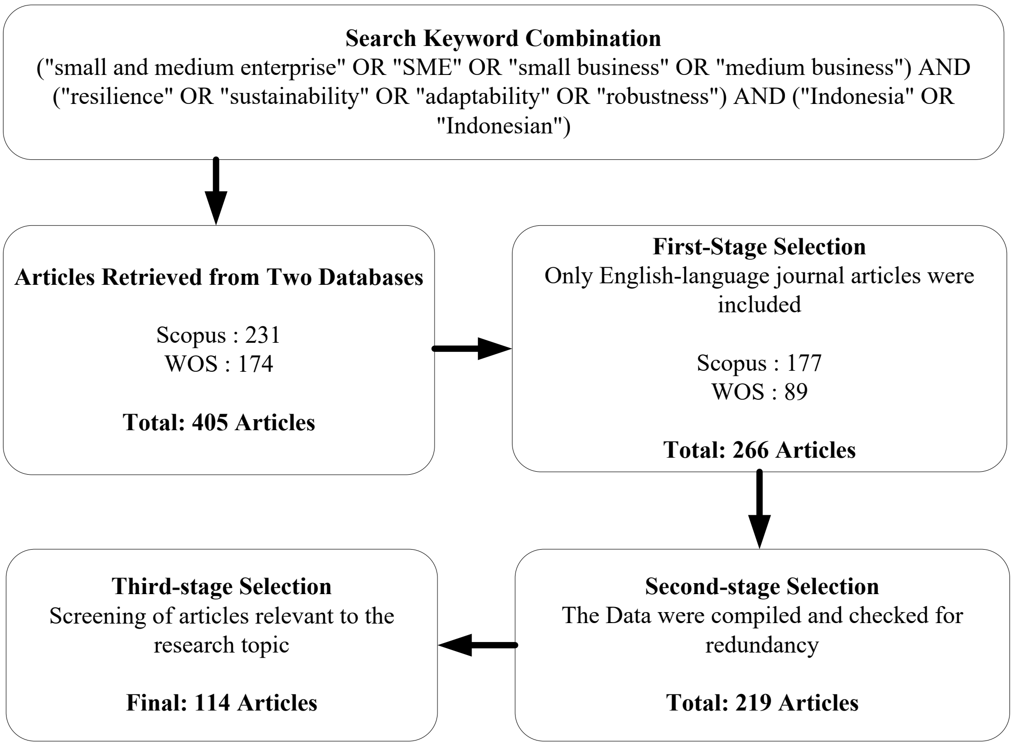

Figure 1. Overview of the Article Search and Selection Process

The next stage involved screening based on titles and abstracts to ensure the relevance of the articles to the research topic. This process resulted in 114 articles that met the selection criteria and were deemed suitable for further analysis. The selection procedure followed established practices widely adopted in prior systematic literature reviews (Anggadwita & Indarti, 2023), emphasising transparency and objectivity in the data collection process.

Data analysis and synthesis

Following the identification of relevant articles, data analysis and synthesis were undertaken to generate deeper insights into the resilience of SMEs in Indonesia. This stage involved two main processes. First, a profile mapping of the selected articles was conducted, encompassing publication year, source database, journal publisher, journal ranking, research design, unit of analysis, and the theoretical or conceptual frameworks employed. Second, a content analysis was performed to identify the key factors associated with SME resilience. The purpose of this content analysis was to classify the central issues into relevant thematic categories, thereby providing an overview of journal trends and the distribution of research topics (Neuendorf, 2010).

A deductive approach was applied to categorise the article findings within the AMO framework, while an inductive approach was used to extend the AMO framework by uncovering mediating and moderating variables that influence the relationship between SME resilience and broader contextual dimensions—such as social and economic factors that underpin organisational endurance. The combination of these two approaches allowed for a more comprehensive assessment of the AMO framework and facilitated the development of a holistic understanding of SME resilience in the Indonesian context (Fischer & Reuber, 2003; Parmigiani & King, 2019).

In this study, only peer-reviewed journal articles were included, ensuring a higher level of quality and scholarly reliability compared to non-journal sources such as book chapters or unpublished works. Consequently, the final selection of 114 articles—drawn from the initial pool of 219—served as the basis for the literature review, the findings of which are presented in the following section.

RESULTS AND DISCUSSION

Research Profile of the Reviewed Articles

The first part of the analysis involves mapping the research profile to identify trends in the literature. From an initial pool of 219 publications retrieved from Scopus and Web of Science (WOS), a total of 114 articles were identified following relevance screening and the application of inclusion criteria. These articles focused specifically on SME resilience in Indonesia, were published in peer-reviewed English-language journals, and span the period from 2015 onwards.

Research Trends and Journal Publishers

Research on SME resilience in Indonesia has shown a notable upward trend in recent years. The first article on this topic was published in 2015, with the number of publications increasing steadily from 2020 onwards. A significant surge occurred in 2023 and 2024, with 30 and 32 articles published respectively. This publication trend reflects growing scholarly interest in SME resilience in Indonesia, particularly in the context of economic recovery and post-pandemic challenges.

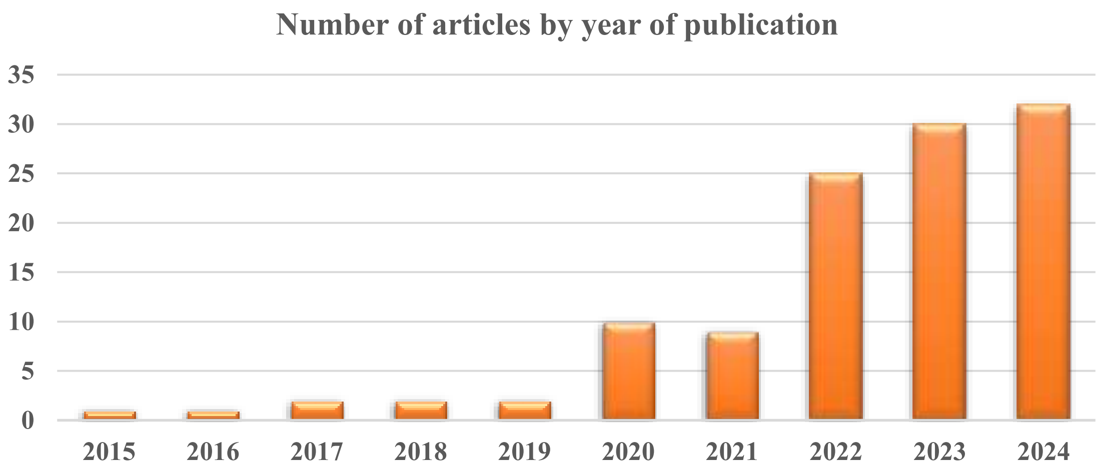

Figure 2. Number of Articles by Year of Publication

The development of SME resilience research demonstrates a marked shift in focus. Early studies in 2015 concentrated on multidimensional crisis responses, such as natural disasters and economic recessions. By 2017, socio-cultural dimensions began to feature prominently, especially in the tourism sector, highlighting the role of social, economic, and cultural capital in fostering resilience. The COVID-19 pandemic in 2020 served as a catalyst for research into the role of technology and digitalisation, with models such as the Technology Acceptance Model (TAM) and Resource-Based View (RBV) employed to explore technological adaptation as a driver of resilience.

In 2022, research began to emphasise sustainability-oriented strategies, including diversification and green innovation, frequently employing structural equation modelling (SEM) to examine the link between these strategies and business performance. By 2023, greater attention was given to government interventions, business agility, and digitalisation, underscoring the relevance of adaptive business model innovation. In 2024, research adopted multilevel approaches and integrated modern theoretical frameworks such as the Technology–Organisation–Environment (TOE) framework and Dynamic Capabilities View (DCV) to investigate SME resilience in relation to technology, sustainability, and the circular economy. This evolution reflects a transition from descriptive analyses to holistic approaches that integrate social, technological, and sustainability perspectives to strengthen SME resilience in the face of global challenges.

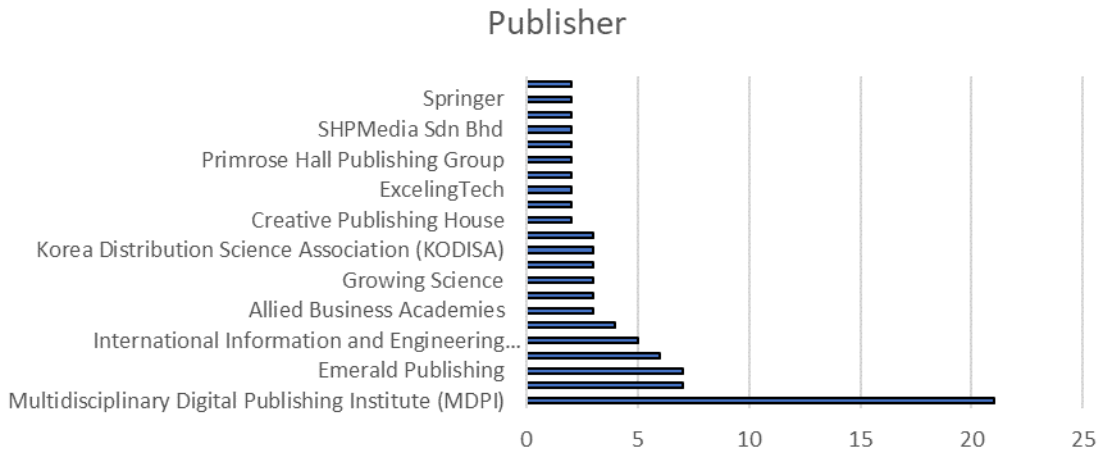

Figure 3. Number of Articles by Publisher

The reviewed articles were published across a wide range of sources, including several leading academic publishers. The Multidisciplinary Digital Publishing Institute (MDPI) emerged as the most prominent publisher, accounting for 21 journals featuring this topic. Elsevier Ltd and Emerald Publishing each published 7 articles, while other publishers such as Cogent OA, the International Information and Engineering Technology Association, and Taylor & Francis also contributed to the dissemination of this body of research. This diversity of publishing outlets reflects the growing academic and practical interest in the subject of SME resilience, and its increasing relevance across multiple scholarly domains.

Domain and journal quality

The reviewed articles demonstrate a considerable diversity in academic domains. Among the 114 articles, the majority were published in journals focusing on sustainability, management, economics, and innovation, reflecting the growing academic interest in SME resilience as a multidisciplinary topic. Journals that most frequently featured relevant articles include Sustainability (19 articles), Cogent Business and Management (7 articles), as well as others such as the International Journal of Sustainable Development and Planning and the Journal of Open Innovation: Technology, Market, and Complexity, each of which published 5 articles.

The majority of the reviewed articles appeared in highly ranked journals. Specifically, 27 articles were published in Q1 journals, 30 in Q2, and 20 in Q3. The presence of Q1 journals in this sample indicates that a significant portion of the literature is published in reputable and high-impact journals, signalling the quality and rigour of research in this area. For example, Sustainability, one of the most frequently cited journals, is widely indexed and holds considerable influence in the fields of sustainability and management. Nevertheless, several articles were also published in non-ranked journals or outlets not indexed in Scopus or Web of Science, demonstrating the diversity in publication sources and the broad interest in this topic across various levels of scholarly platforms.

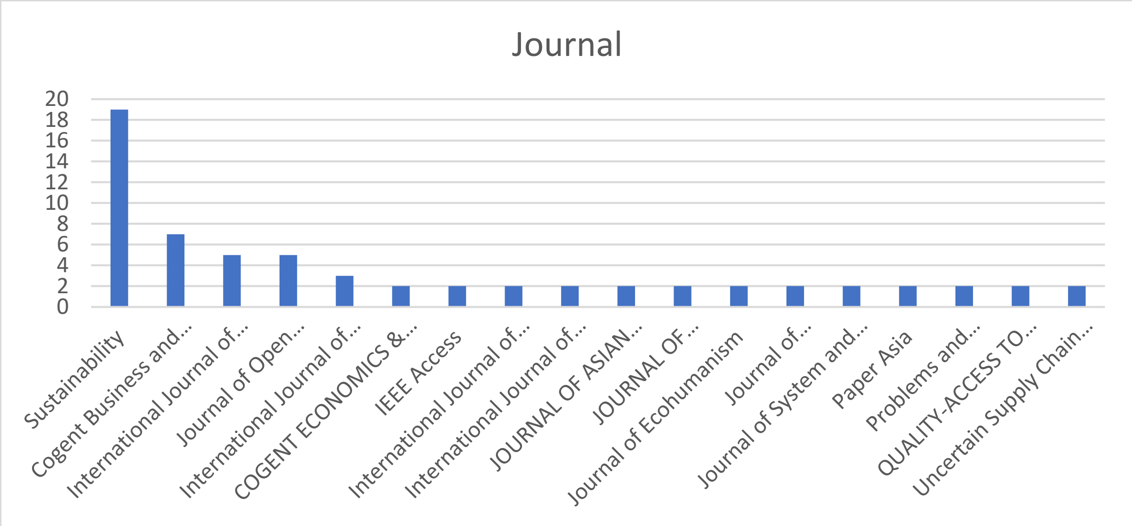

Figure 4. Number of Articles by Journal

Methodologies and Units of Analysis

Research on SME resilience adopts a mix of quantitative, qualitative, and mixed-method approaches to comprehensively examine business endurance. Quantitative methods, utilised in approximately 63% of the studies, typically rely on survey-based research using Structural Equation Modelling (SEM) or Partial Least Squares SEM (PLS-SEM). These studies often focus on themes such as sustainability strategies, technological adoption, and green innovation.

Qualitative approaches (28%) frequently employ in-depth interviews and case studies to explore how SMEs adapt to crises, with some incorporating ethnographic or longitudinal designs to illustrate dynamic change processes. Mixed-method studies (9%) combine quantitative surveys with qualitative interviews, offering a more contextualised understanding of the organisational and social factors influencing resilience. Additionally, some studies employ systematic literature review methods to highlight emerging trends and propose conceptual models for SME resilience.

The unit of analysis in these studies ranges from the individual to the organisational, and in some cases, adopts a multilevel perspective. The organisational level remains the predominant focus, although multilevel studies often integrate external influences, such as government policies, to understand broader contextual impacts. This diversity in methodological approaches and units of analysis underscores the multidimensional nature of SME resilience and the need for integrated strategies to support SMEs in navigating dynamic business environments.

Core Themes and Theoretical Foundations of SME Resilience in Indonesia

This section explores the theoretical frameworks employed in studies on SME resilience in Indonesia, offering key insights into how conceptual models have been applied in this context. A range of theories identified in the literature provide foundational perspectives for understanding the drivers of SME resilience and sustainability in the Indonesian setting.

The Resource-Based View (RBV) highlights the strategic importance of firm-specific resources and capabilities as determinants of competitive advantage and adaptability. Lestari et al. (2024), for instance, applied RBV to examine the role of financial resources and government support in strengthening SME resilience in Indonesia and Malaysia post-pandemic. Their findings underscore the significance of effective resource management in addressing external shocks. Similarly, Yanuarni et al. (2024) utilised RBV to analyse post-disaster recovery strategies among tourism SMEs affected by the Lombok earthquake, emphasising the role of disaster mitigation and knowledge management in enhancing resilience.

RBV also offers a nuanced understanding of how SMEs can navigate resource constraints, which are common in developing economies. For example, Sabihaini et al. (2024) employed RBV to demonstrate how strategic business planning can moderate the link between entrepreneurial traits and SME performance, especially amid environmental uncertainty.

Complementing RBV, the Dynamic Capabilities View (DCV) focuses on the firm's ability to build, reconfigure, and transform internal and external competencies to respond to rapidly changing environments. Lestari et al. (2024) showed that technological adoption significantly enhances SME resilience by improving responsiveness to external shocks. Astuty et al. (2024) integrated DCV with entrepreneurial orientation to propose sustainable resilience strategies for micro-enterprises in the digital era, stressing the relevance of digital innovation and organisational transformation in achieving sustainability goals.

The Technology–Organisation–Environment (TOE) framework offers a holistic lens by integrating technological, organisational, and environmental dimensions. Ulupui et al. (2024) demonstrated that TOE-based risk management practices contribute to SME sustainability. Similarly, Indrawati et al. (2020) highlighted the importance of government support and innovation funding in overcoming technological barriers. TOE has also been instrumental in explaining the adoption of digital technologies, such as e-commerce and online marketing, as key enablers of SME sustainability (Udayana et al., 2023), reflecting the vital interplay between modern technology, organisational practices, and environmental policy.

Social Capital Theory (SCT) serves as a key framework for understanding how networks and social ties reinforce SME resilience. Meflinda et al. (2018) found that social capital and knowledge sharing significantly influence performance and sustainability strategies among SMEs in Riau. Ferguson et al. (2018) further showed that social, economic, and cultural capital played critical roles in enabling tourism SMEs to survive during crises. SCT also helps explain how SMEs draw on local community support to enhance resilience, as demonstrated by Lusiantoro and Pradiptyo (2022), who examined the contribution of organised social groups in restoring supply chains during emergencies.

The Theory of Planned Behaviour (TPB) provides a behaviourally grounded perspective, linking individual intentions and actions to business outcomes. For instance, Asriati et al. (2022) found that entrepreneurial creativity and capability significantly influence post-pandemic business sustainability. This approach also underscores the role of human resource management in building organisational capacity to respond effectively to adversity.

Collectively, these theories reflect a multidimensional approach to understanding SME resilience in Indonesia. Their integration enables a more comprehensive view of how SMEs navigate internal and external challenges, particularly in developing contexts. This interdisciplinary orientation also opens avenues for designing targeted policies that enhance technological access, social networks, and financial support mechanisms.

Given the increasing complexity of challenges faced by SMEs, future research should further integrate these theoretical perspectives to develop richer and more contextually relevant conceptual frameworks. This will support more informed decision-making at both organisational and policy levels, contributing to long-term SME resilience and sustainability.

The AMO Framework (antecedents-mediators/moderators-outcomes)

To analyse the drivers of SME resilience in Indonesia, this study adopts a framework that organises the interplay between antecedents, mediators/moderators, and outcomes. This approach facilitates a structured understanding of the dynamics shaping SME sustainability and resilience in the face of adversity.

Antecedents

Antecedents are classified across three levels: individual, organisational, and environmental. These factors collectively determine the adaptive and survival capacities of SMEs.

At the individual level, entrepreneurial attributes play a critical role in influencing SME responses to challenges. Factors such as financial literacy, risk tolerance, and creativity emerge as key determinants. Idris et al. (2023) found that intellectual capital and financial literacy significantly contribute to the sustainability of SMEs, particularly in the traditional crafts sector. Similarly, Asriati et al. (2022) highlighted the influence of individual creativity and entrepreneurial capability on post-pandemic business strategies.

At the organisational level, internal resources and strategies serve as core drivers of resilience. Lestari et al. (2024) emphasised the roles of top management support, access to finance, and technology adoption in enhancing performance. Ulupui et al. (2024) further demonstrated that effective risk management—particularly in managing operational security and complexity—plays a vital role in strengthening business resilience.

From an environmental perspective, external factors such as government support, regulatory frameworks, and market dynamics significantly influence SME endurance. Yanuarni et al. (2024) showed that policy support and disaster mitigation strategies were pivotal in the recovery of tourism SMEs following the Lombok earthquake. Meanwhile, Muliati et al. (2024) demonstrated that CSR initiatives from larger firms positively influenced green performance among SMEs, with environmental dynamics acting as key moderators.

Mediators–Moderators

Mediators explain the mechanisms through which antecedents influence outcomes, while moderators affect the strength or direction of these relationships. Key mediating variables include sustainability strategies, technology adoption, and social capital. Antara et al. (2024) found that innovation ambidexterity mediated the relationship between sustainable entrepreneurial leadership and business performance. Likewise, Idris et al. (2023) showed that financial literacy mediated the link between risk attitudes and sustainability, underscoring the importance of sound financial management in achieving resilience.

Common moderators include firm age, industry sector, and policy support. Sabihaini et al. (2024) demonstrated that business strategy moderated the relationship between entrepreneurial characteristics and SME performance in highly uncertain environments. Muliati et al. (2024) also found that environmental dynamics strengthened the impact of CSR programmes on SMEs' green performance.

Outcomes

Outcomes refer to the consequences resulting from the interaction between antecedents and mediators/moderators. In the context of SME resilience, outcomes are categorised into three domains: sustainability strategies, organisational behaviour, and business performance.

Sustainability strategies denote the approaches adopted by SMEs to survive amidst adversity. For instance, Astuty et al. (2024) illustrated the significance of digital-based resilience strategies among micro-enterprises in the craft, fashion, and food sectors. Organisational behaviour reflects actions taken to enhance resilience; Rozak et al. (2021) highlighted the role of social media engagement and organisational agility in driving post-pandemic recovery among creative SMEs.

Finally, business performance, both financial and non-financial, represents the ultimate outcome of SME resilience. Rustiarini et al. (2022) found that financial performance among SMEs in Bali improved when sustainability acted as a mediator between intellectual capital and green innovation.

The antecedents–mediators/moderators–outcomes (AMO) framework provides a nuanced understanding of SME resilience dynamics in Indonesia. This multilevel perspective underscores the synergy between internal and external factors in navigating adversity and offers actionable guidance for developing more effective strategies and policies. By applying this framework, researchers and policymakers are better positioned to support SMEs in achieving long-term sustainability and resilience.

DISCUSSION AND DIRECTIONS FOR FUTURE RESEARCH

This study addresses key questions regarding the profile of existing literature, theoretical underpinnings of SME resilience, and the antecedents–mediators/moderators–outcomes (AMO) framework. It also offers guidance for future research agendas. Based on our findings, we identify several opportunities and directions for advancing theory development, methodological design, and content exploration within the context of SME resilience.

Theoretical development

Our analysis reveals that many studies lack systematic and in-depth utilisation of theory to underpin empirical investigations. While theoretical frameworks such as the Resource-Based View (RBV), Dynamic Capabilities View (DCV), and the Technology–Organisation–Environment (TOE) framework are frequently employed in SME resilience research, broader integration and theoretical innovation remain limited.

Integrating multiple theoretical lenses offers significant potential to enrich understanding of SME resilience. For example, the integration of RBV and Social Capital Theory could illuminate how SMEs leverage internal resources through social networks to address external challenges. Meflinda et al. (2018) demonstrated the role of social capital in supporting business sustainability; however, combining this with RBV would enhance analysis of the complementarity between internal and external resource bases.

Moreover, combining DCV with relational theory presents new opportunities for theoretical advancement. Relational theory, which emphasises the strategic value of inter-firm relationships (Lavie, 2006), could contribute to a deeper understanding of how SMEs forge collaborative partnerships to adapt in volatile environments.

In the Indonesian context, culturally grounded and locally derived theories also hold promise. Theoretical perspectives that explore the role of community-based values in shaping resilience—such as the indigenous concept of gotong royong (mutual cooperation)—could make unique contributions to the global SME literature by offering insights into locally embedded resilience mechanisms.

Methodological Directions

This study identifies several methodological trends in Indonesian SME resilience research while highlighting the need for clearer orientation and contextual depth. Most prior studies adopt quantitative approaches, particularly using Structural Equation Modelling (SEM) and Partial Least Squares (PLS). While these methods offer insights into causal relationships, they often fall short in capturing contextual complexities. For example, studies by Idris et al. (2023) and Rustiarini et al. (2022) employed surveys to examine the link between financial literacy and business sustainability but lacked an exploration of entrepreneurs' lived experiences.

Future research could benefit from qualitative approaches such as in-depth interviews or case studies to uncover personal perspectives of SME owners. For instance, the ethnographic longitudinal study by Dahles and Susilowati (2015) offers a rich understanding of SME resilience evolution over time. While most current research relies on cross-sectional data, longitudinal designs are essential for analysing adaptive processes and strategic transitions across different crisis phases. Yanuarni et al.'s (2024) research on post-disaster recovery could be expanded through longitudinal observation to trace strategy adjustments over time.

Although secondary data are widely used for convenience, primary data collection—through direct surveys or interviews—can provide higher validity. A key challenge in this regard is access to SME respondents, particularly in remote areas. Collaborative efforts with local institutions or SME associations could facilitate better access and data accuracy. To date, Indonesian SME research has primarily been single-country studies. Comparative cross-country research could offer fresh insights into how policy environments, cultures, and economic systems influence resilience. Lestari et al.'s (2024) comparative study of Indonesia and Malaysia provides a useful model that could be expanded to include other Southeast Asian countries.

Previous research has largely concentrated on sectors such as manufacturing and tourism, while industries like fashion, food, and crafts remain underexplored. The work by Astuty et al. (2024) on micro-enterprises in these sectors demonstrates the value of sectoral diversity in resilience research. There is also inconsistency in how SMEs are defined and classified across the literature, potentially affecting the validity and generalisability of findings. Future studies should adopt systematic classification criteria—based on size, sector, and operational characteristics—as recommended by Bocconcelli et al. (2018).

Big data analytics and predictive modelling present promising methodological innovations for resilience studies. These tools can reveal hidden patterns and correlations that traditional methods may miss. Moreover, they enable real-time monitoring of SME dynamics, especially during crises such as pandemics or natural disasters. Overall, developing innovative and rigorous methodologies—including mixed methods, longitudinal designs, primary data collection, sectoral diversity, and cross-country comparisons—will enhance the theoretical and practical relevance of SME resilience research.

Content exploration

This study proposes an integrative multilevel framework that enables further empirical testing of resilience-related constructs across individual, organisational, and environmental dimensions. At the individual level, future research should delve deeper into the personal backgrounds and distinctive attributes of SME entrepreneurs. While financial literacy, experience, and creativity have been established as important factors (Idris et al., 2023; Meflinda et al., 2018), other elements such as leadership styles and entrepreneurial self-efficacy remain underexplored. Research could also examine how entrepreneurial orientation and motivation shape the adoption of innovative and adaptive strategies.

At the organisational level, internal characteristics and management strategies warrant further exploration. Lestari et al. (2024) underscore the importance of top management support and technology adoption, but future studies should examine how SMEs optimise human resources, technological infrastructure, and social networks to navigate dynamic environments. Employee competencies, such as language proficiency and digital skills, often pose barriers (Chalduna et al., 2020). Further research might investigate how SMEs address these limitations through training programmes or strategic recruitment.

At the environmental level, future studies could examine the role of social, cultural, and institutional support systems in fostering resilience. For example, Yanuarni et al. (2024) highlighted the significance of government interventions in crisis recovery, while Muliati et al. (2024) demonstrated the moderating effect of environmental dynamics on the CSR–green performance relationship. Local norms and cultural values also shape SME responses to adversity. The concept of gotong royong serves as a social force that may reinforce community-based resilience. Future research should explore how such cultural principles are translated into organisational strategies.

CONCLUSION

This study provides a comprehensive insight into SME resilience in Indonesia through a multilevel approach encompassing individual, organisational, and environmental dimensions. By drawing upon various theoretical frameworks—including the Resource-Based View (RBV), Dynamic Capabilities View (DCV), and Social Capital Theory—this review highlights the critical importance of theoretical integration in understanding the complex dynamics of SME resilience. The findings suggest that key determinants of SME sustainability amid adversity include: financial literacy, creativity, and entrepreneurial leadership at the individual level; innovation strategies and organisational resource management at the firm level; and governmental support and cultural norms at the environmental level. Furthermore, mediators such as technology adoption and moderators such as environmental dynamism serve to strengthen the relationship between antecedent factors and resilience outcomes.

Recommendations for future research include methodological enhancement through qualitative and longitudinal approaches, a stronger emphasis on industry diversity, and cross-country comparative studies to capture contextual variations. Further content exploration is also encouraged, particularly concerning the roles of leadership style, organisational strategies, and local cultural values in shaping SME resilience. By integrating broader theoretical perspectives and adopting innovative analytical approaches, future research is expected to make more significant contributions to the academic literature while simultaneously informing effective policy implementation to enhance the resilience and long-term sustainability of SMEs in Indonesia (Calibri Light 11, spasi 1, spacing before 0 pt, after 0 pt).

SUPPLEMENTARY MATERIAL: RAW DATASET OF REVIEWED ARTICLES

This supplementary file contains the raw dataset of all articles included in the review process. The dataset includes detailed bibliographic and content-related information such as author names, article titles, publication years, source titles, abstracts, author keywords, volume and issue numbers, SJR scores, journal quartiles, and publishers. This material is provided to ensure transparency, facilitate replication, and support further research. The full dataset can be accessed via the following link: https://bit.ly/SLRIndonesianResilience

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